

ANEXOS

ANEXO I: VERSIÓN PFC EN INGLÉS

Integration of Selective Catalytic Reduction (SCR) plant into the Computerised Maintenance Management System (CMMS) at *Ratcliffe-on-Soar* Power Station

ABSTRACT

The development of this report has been carried out at the German company E.ON, based on *Ratcliffe-on-Soar* Power Station located in Nottinghamshire, United Kingdom. The project will create new functional locations for the Selective Catalytic Reduction (SCR) plant and associated modifications to existing equipment available on SAP (Systems, Applications and Products in Data Processing) according to the Environmental Upgrade Project set by the company. This document outlines the detail and requirements for the Plant Reliability and Availability (PRA) coding structure used to identify plant at *Ratcliffe-on-Soar* Power Station and it addresses the coding requirements for successful implementation of the SCR plant. In addition this document will detail the coding structure for the new plant to be installed and existing references to be re-used at the current plant.

This will form the basis for developing an optimum maintenance strategy for the plant to facilitate SCR operation. Furthermore the Induced Draught (ID) Fans and the Ammonia Storage and Injection systems will be examined in detail acquiring technical knowledge of the electrical systems, lubrication, cooling, pipework and instrumentation.

On the one hand the project is based on the study and implementation of technical components belonging to the ID fans and Ammonia Plant into SAP, and, on the other hand, the description and operation of the Power Station through SAP. In addition, it will attempt to identify the best way of utilising SAP when loading data and present the SAP business processes current used.

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1 INTRODUCTION

The context in which this project has developed summarizes the idea of the company to improve the current systems and create different maintenance strategies for new plant configurations. The idea of this project was design as a part of one of the SAP Team high level objectives for 2011.

As part of the Maintenance and Planning Structure, SAP Development Team is responsible for developing the use of the SAP Plant Maintenance process to ensure it adds value to the business. Therefore, the project has been accommodated to integrate the new SCR plant into the SAP functional location system.

To achieve this, there were different views around the plant acquiring technological knowledge regarding to the electrical system, lubrication system, cooling, piping and instrumentation of the systems. A training module SAP PM (Plant Maintenance) has been required to carry out the project.

Thus, the development and research of this project is important because will maximise the value and benefits of SAP for the company and will deliver a better performance of the Power Station in terms of maintenance and controlling the new SCR installation. In addition the new SCR SAP structure will form a basis for other Power Stations that could install the same technology on the future.

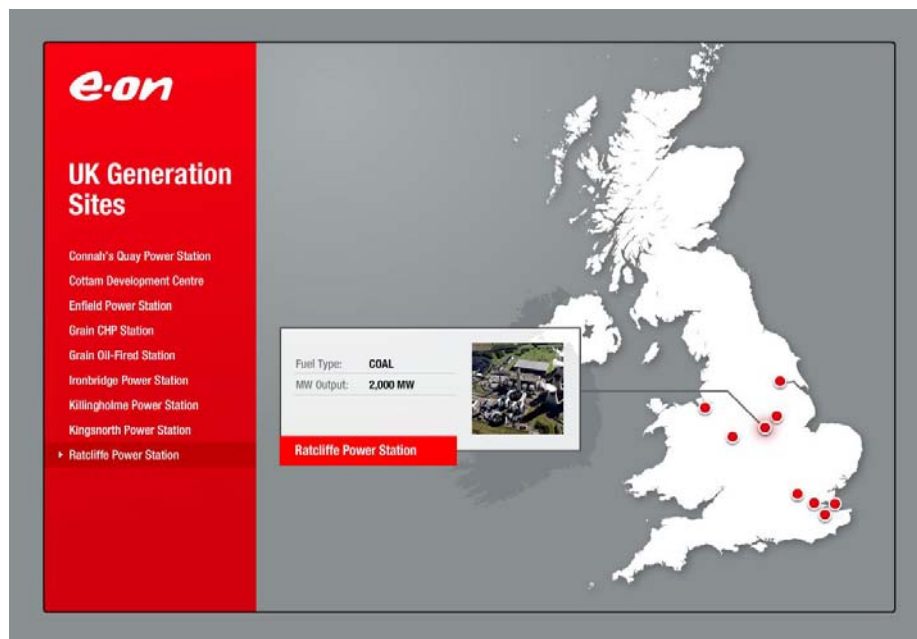


Figure 1 E.ON UK Scope Generation Sites [4]

This project has given to the author the possibility to work in various departments of the Power Station finding new professional, cultural and social environments. That has involved liaise with engineers, senior leaders, technicians, contractors and other employees of the company. Likewise, the company benefits from the work developed on this project, as its

practical application is being implemented on the Computerised Maintenance Management System and it will form the basis for an optimum maintenance strategy.

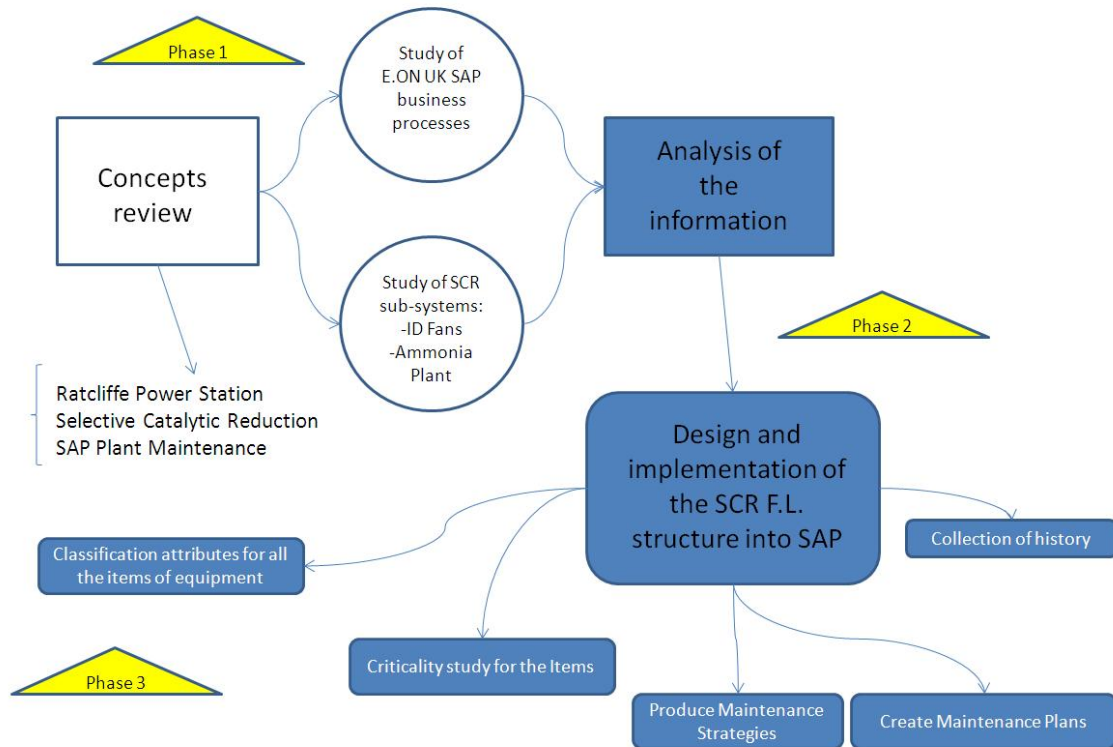


Figure 2 Phases of the project

Figure 2 shows the different phases of the project. The first phase or Concepts phase covered the project initiation, over a short period of time ending with enough knowledge to start the analysis of the information and getting close to the way the Power Station is operating and the key milestones of the SCR project. The second phase is about analysing all the ID Fans and the Ammonia Storage and Injection plant in order to design the hierarchical structure into SAP. That includes the preparation of the load data files and the revision of the final SAP layout in the test mode. The last phase of the project involves all the activities after the system has been installed on the system including determining criticality levels of the equipment in order to produce different maintenance strategies for the new functional locations.

Therefore the main goals of the project are:

- Design and implement a hierarchical SAP functional location structure to accommodate SCR plant.
- Gain specialized knowledge on PM (Plant Maintenance) SAP for Engineers.
- Understanding of the Selective Catalytic Reduction system through checks at the plant.
- Determination of Criticality Levels (Safety, Environmental and Operational) of some of the new SAP Functional Locations
- Documentation of Maintenance strategy.

- Understanding current operation of SAP in the company and the way of using SAP across different business processes.
- Maximise the value and benefits of SAP.

Phase 3 is still under development and will cover the production of planned maintenance routines and task lists as well as identification of key spares and collection and Monitoring of Maintenance History. Thus, the final objective will be to develop an optimum maintenance strategy for the new plant.

An idea of how the time was spent during the project for the SAP Development Team and the SCR Engineers it can be shown on Figure 3. From October 2011 to January 2012 the main task was the creation of the locations for the ID Fans and SCR Unit 3 and Non Unit Sections. The Ammonia Plant was postponed until the end of May 2012 and from March 2012 dates were set to upload the locations into NiSoft-Eclipse⁵⁹, study the criticality levels of the equipment and create maintenance Strategies for the SCR Plant.

The report is structured in four sections. The first one will give an understanding of the history and background of the Power Station as well as the reasons to install the new SCR Technology. The second section will study SAP at Ratcliffe and how the business processes are set on the company when loading new locations into the Computerized Management System. This will form the basis to design the SAP structure for ID Fans and Ammonia Plant on the following section. Lastly, it will be mention how a Criticality Study for Safety, Environmental and Operational levels is done for the new SCR functional locations. The project will conclude with an evaluation and analysis of the final results as well as an explanation of future actions.

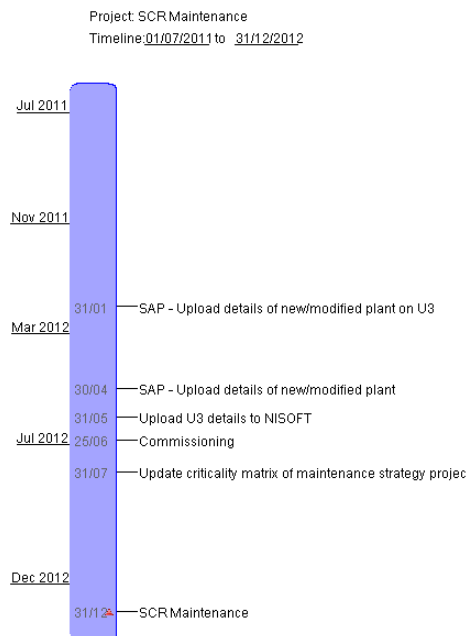


Figure 3 SCR integration project extraction from Microsoft Project

⁵⁹Nisoft is a world leader in Integrated Safe System of Work, Permit to Work solutions protecting over 300 sites globally within the Power Industry. [22]

2 RATCLIFFE POWER STATION

2.1 Ratcliffe Background to the Project

Ratcliffe on Soar Power Station is a coal-fired power station built in the 1960's by the Central Electricity Generating Board (CEGB). Located in Ratcliffe on Soar, Nottinghamshire (England), Ratcliffe Power Station was constructed and commissioned between 1963 and 1967. It consists of 4 x 500MW units and was initially designed for 25 years operating life.

Ratcliffe is the only coal fired power station in E.ON UK's generation portfolio fitted with Flue Gas Desulphurisation (FGD). On the basis of this investment in the early 1990's the plant is the only station that "opted-in" to the first phase implementation of the European Community Large Combustion Plant Directive (LCPD)⁶⁰ and hence not facing closure before 2015.

Despite significantly exceeding the original operating life, Ratcliffe did not receive any significant mid-life investment during its first 40 years of operation. Outage work scope was generally based on a risk mitigation approach ensuring that only the work assessed as necessary to allow running for the following four year period was undertaken. As a result, by 2007 many major components were identified as being close to life expired. Without attention to critical areas from 2008 the generating units would have faced closure from 2011 to 2014.

2.2 Ratcliffe Environmental Upgrade Project

The Ratcliffe Environmental Upgrade Project (REUP) (see Appendix I) was initiated in June 2006, as the result of an E.ON strategic decision to continue to operate Ratcliffe Power Station, in line with EU Large Combustion Plant Directive (LCPD) legislation. The project exists to support and facilitate the continued, unconstrained operation of the station to 2030. This is delivered by focusing on two main requirements;

- a) **Life extension work** - with the aim of facilitating unconstrained plant running until 2030. As well as replacement of key life expired components; it is intended to enhance plant output where economically feasible. The main areas of investment are across boiler pressure parts, electrical systems, turbo alternator and building & materials handling plant structures
- b) **Installation of Selective Catalytic Reduction technology (SCR)**⁶¹ – to be installed on all four generating units to reduce NO_x emissions in line with Phase II EU Large Combustion Plant Directive requirements from January 2015. The paper proposed

⁶⁰ "From 1 January 2008, the EU Large Combustion Plants Directive (LCPD) requires the reporting of emission concentrations for SO₂, NO_x and dust to be based on continuous emissions monitoring systems (CEMs), excluding start-up and shutdown periods. The CEMs are subject to a rigorous quality assurance regime. For existing coal-fired plant "opted-in" to the LCPD, every monthly concentration average must be below the target emission limit values (400 mg/m³ for SO₂, 500 mg/m³ for NO_x and 50 mg/m³ for dust). These plants must also demonstrate that 97% (or 95% for NO_x) of all the 48-hour average concentrations measured across a calendar year, are below 110% of the emission limit value. To allow for measurement uncertainty, the LCPD specifies that the values of the 95% confidence interval of any single measurement shall not exceed 20% of the emission limit value, or 30% in the case of dust. In the United Kingdom, this is implemented as a percentage adjustment to the hourly average measured concentration." [3]

⁶¹ See Appendix III a & III b for SCR Technology explanation

that E.ON aim to be the first utility to install SCR on a UK coal fired plant to be seen to be setting the Best Available Technology (BAT) standards for NO_x reduction in the UK.

The project is being managed by the Ratcliffe site team with technical support from E.ON New Building & Technology. The Ratcliffe Environmental Upgrade is a complex engineering project with a complete capital value of £900M. Investment at Ratcliffe is deemed fully consistent with E.ON's corporate strategy and the UK market units 'changing energy' philosophy as it ensures security of supply is maintained during the period of transition to a low carbon economy. In particular it fulfils a potential capacity gap in the critical years up to 2025 when current capacity is being closed out and new low carbon capacity built. The capital costs of the project were evaluated as being significantly lower than the level investment required to replace Ratcliffe with additional new capacity should the decision have been taken to close the plant.

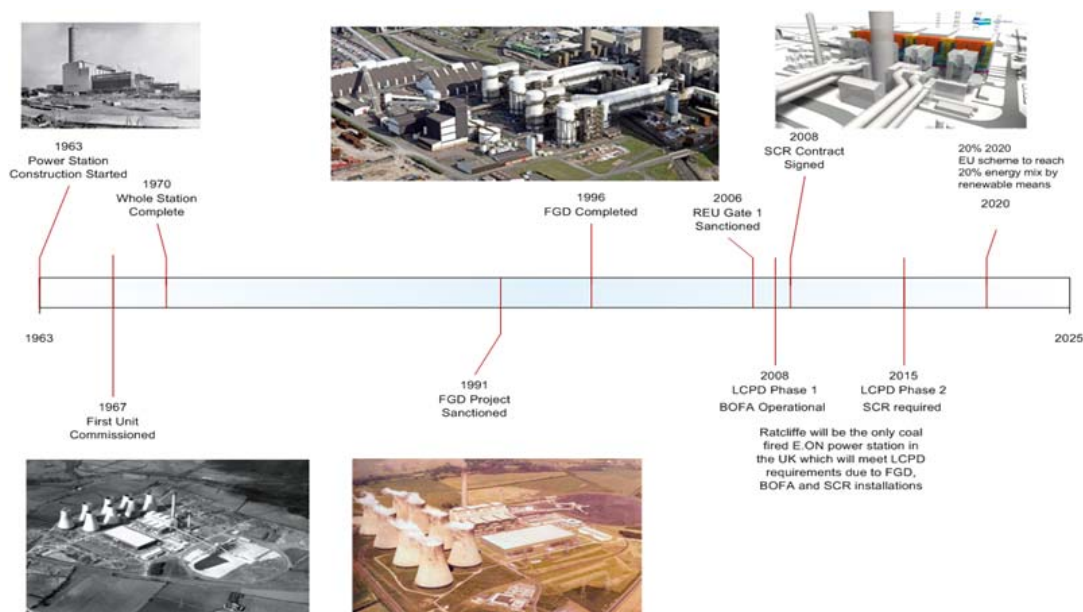


Figure 4 Ratcliffe Power Station Milestones [15]

2.3 Reasons to install SCR

Oxides of Nitrogen (NO_x) are formed during any combustion process that uses air. Although air has over 75% nitrogen (by mass), the strongly bonded nitrogen molecules (N₂) present in the air are not readily dissociated to create NO_x during combustion. In contrast, Nitrogen occurring in the fuel (coal or oil) is generally bound to carbon, as organic nitrogen compounds, and has a much lower bond strength. Consequentially fuel-bound nitrogen more readily broken to form NO_x compounds during combustion. Various strategies are used to limit NO_x formation; particularly by using low NO_x burners and overfire air (BOFA). This arrangement reduces the air available for initial fuel combustion then supplies the balance of air necessary to ensure complete fuel burn-out at a lower temperature. Additional NO_x reduction is provided by downstream flue gas treatment.

However, the SCR system installed for Ratcliffe is intended to achieve the NO_x reduction values under full load steady state conditions. The following points are the main reasons to install SCR:

- Reduce from 1st January 2016, Ratcliffe's NO_x Emission Limit Values (ELV) expected to be in the order of 200mg/Nm³.
- SCR would give Ratcliffe greater market flexibility and control.
- It would generate power at affordable levels as SCR project moves towards a lower carbon economy.
- Fitting SCR would make Ratcliffe the UK's cleanest coal-fired power station and it would guarantee capacity during a time when many power stations would be closing, putting pressure on UK supplies (and closing Ratcliffe would make this situation worse).

2.4 SCR components

The SCR Structure is formed by the following instruments within the various units and subsystems are given in the relevant paragraph:

- **Bulk Anhydrous Ammonia unloading and storage (Common to all Units)*⁶²**
- **Ammonia Forwarding and Vaporisation Unit***
- **Ammonia Distribution Unit***
- **Ammonia Vapour Flow Control Unit***
- Dilution air/ air heating/ ammonia mixing unit.
- Two large particle ash (popcorn) screens
- Two Ammonia Injection Grids (AIG) – one per SCR reactor.
- Two SCR Reactors each containing 2 layers of catalyst (provision for 4 layers).
- Two Primary and Secondary Economisers
- Ash transport system
- Catalyst Cleaning System - sixteen sonic horns per reactor.
- Reactor inlet and outlet dampers
- Reactor bypass ducts and isolation dampers
- Catalyst handling equipment.
- Ductwork, expansion joints and pneumatic gas pass outlet dampers connecting from boiler SH and RH rear pass to SCR reactors and bypass ducts.
- Ductwork and expansion joints from SCR units to the existing air heater common flue gas inlet ducts.
- **Two Variable Speed Induced Draught (ID) fans.***
- **ID Fan VSD secondary cooling systems.***

⁶² Items marked with * will be studied on the project

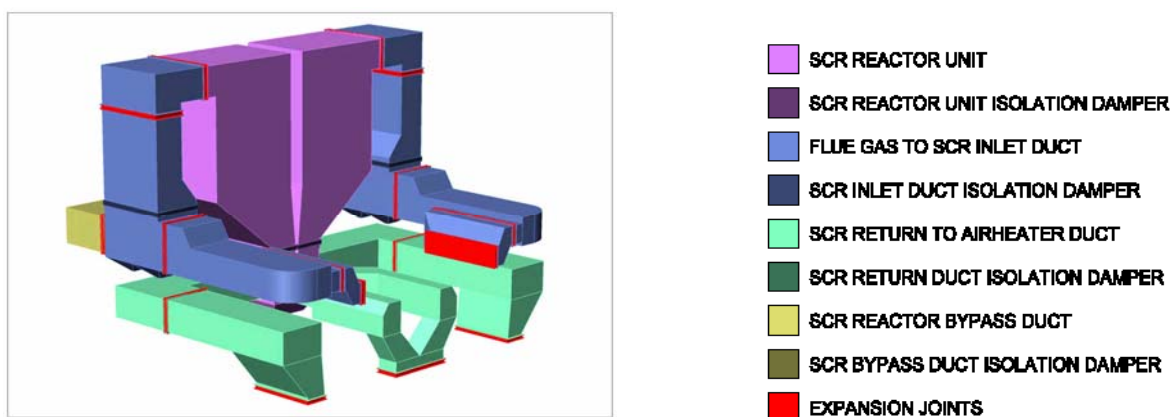


Figure 5 Ratcliffe SCR 3D CAD Design Layout [5]

3. SAP AT RATCLIFFE POWER STATION

3.1 SAP

SAP is an integrated software package used worldwide by many different companies in many different industries. The application is modular based and supports the essential functions of different business processes and can be tailored to specific needs of the industry. Founded in 1972, SAP, which stands for "Systems, Applications and Products in Data Processing" has a rich history of innovation and growth as a true industry leader. Today, SAP applications and services enable more than 109,000 customers in 120 countries to operate profitably, adapt continuously, and grow sustainably [6]. SAP is the accounting, logistics and asset management system for E.ON UK Business Situation regarding SAP and Ratcliffe Power Station is using Plant Maintenance, Finance and Controlling and Human Resources modules.

SAP has been used from 2009 at Ratcliffe Power Station where major changes were installed after Global and now changes in the company like E.ON 2.0 is affecting the way the software is being used. In addition there is a Central Team, SAP Optimisation Team, which is responsible to get the best value to optimize SAP processes in every E.ON UK site. Figure 6 shows the idea of SAP improvement proposed by E.ON and different steps to achieve the best practice of the system.

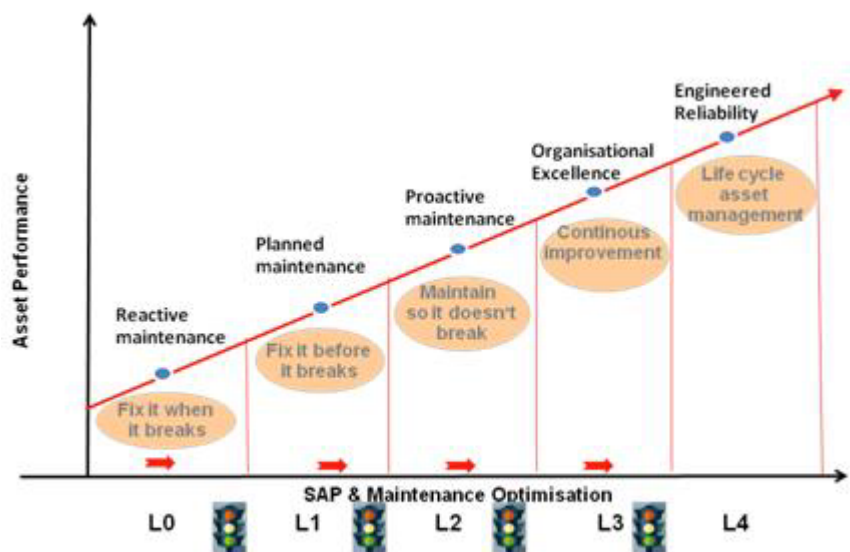


Figure 6 E.ON UK Maintenance Performance Model [29]

3.2. Main modules of SAP

SAP R/3 was arranged into distinct functional modules, covering the typical functions in place in an organization. The most widely used modules were Financial and Controlling (FICO), Human Resources (HR), Materials Management (MM), Sales & Distribution (SD), and Production Planning (PP) [7]. The project has been based on the Plant Maintenance

(PM) module, which is the main functional module used at Ratcliffe. Each module handled specific business tasks on its own, but was linked to the others where applicable⁶³.

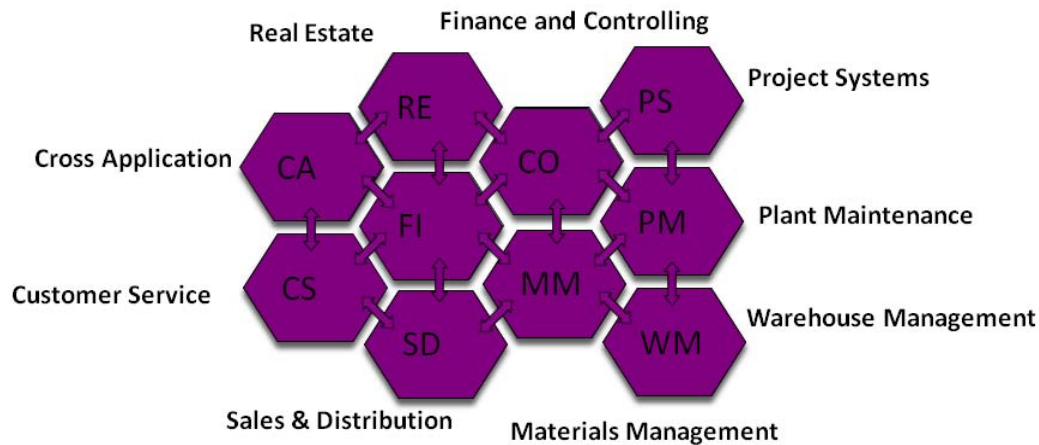


Figure 7 SAP Functional Modules [4]

3.2.1 Plant Maintenance (PM) Module

SAP Plant Maintenance is:

- An Asset Register to record the maintenance history of a specific site.
- A Work Management Tool that involves maintenance planning & scheduling of planned maintenance activities. Notifications for example to identify reactive maintenance Work Orders to track the cost and progress of jobs.

The use of SAP for plant maintenance is mandated by E.ON UK's German parent. The same main software release of SAP is in use throughout the UK sites and SAP differs in its local configuration, its detailed content and use (for example the master data is very variable across sites) and this is an area requiring attention.

SAP is the key software for maintenance but associated or integrated software tools (e.g document management systems) need to be understood to see how they currently relate or could relate to maintenance process improvement. The main areas of improvement at the moment are:

- Key Performance Indicators.* KPI's are deliverable currently through SAP PM. In relation with that guidance on KPI's has been available but the system and data are currently insufficiently deployed or captured to produce meaningful figures.
- Outage planning* (plant shutdowns). It is viewed as an area for improvement as commonly difficult or outage tasks are pushed into the main Outage and do not take advantage of opportunities (e.g low grid demand.)
- Spares.* Critical spares tracking and spares optimisation has been perceived as a weak area.

⁶³ See Appendix IV

- *Routines.* Daily management of planned maintenance routines/work orders is signalled as a problem area.

3.3 Technical Objects

In SAP PM technical objects are:

- Functional Location and Equipment
- BOMs⁶⁴ and Spares

The business object functional location is an organizational unit within logistics that structures the maintenance objects of a company according to functional, process-related or spatial criteria. A functional location represents the place at which a maintenance task is to be performed and a system area at which an object can be installed. Thus, a functional location could be an asset like a valve, generator, building... The objects that can be installed at functional locations are called pieces of equipment in the R/3 System. Accordingly E.ON SAP PM Optimization Team defines a Functional Location as a *“Non-moveable objects structured in a hierarchy to logically represent the technical system.”* [11]

The functional location structure logically follows the plant hierarchy and the highest level functional location represents a plant. Functional locations can be structured according to the following criteria:

- Functional criteria Example: "pumping station", "drive unit"
- Process-related criteria Example: "polymerization", "condensing"
- Spatial criteria Example: "hall", "location"

Therefore the aim of creating a functional location is to structure a technical system or building into units that are relevant for Plant Maintenance. In addition, it needs to take into account that all work done must have the lowest possible level of the functional location structure assigned

On the other hand, equipment is a physical item of plant and is created when you need to track a specific piece of machinery. This item could breakdown into BOMs that are lists of spare parts associated with a functional location or equipment.

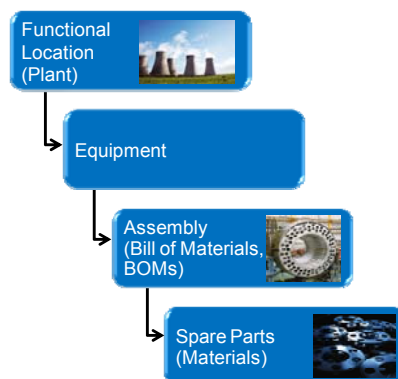


Figure 8 SAP PM Technical Objects [4]

⁶⁴ Bill of Materials

3.3.1 Criteria for Functional Locations

Therefore, a company like E.ON should use functional locations to structure their systems because:

- Represents the structures of the technical systems in the company according to functional criteria.
- Maintenance tasks have to be performed for individual areas in the structure of the technical system and this work must or should be recorded.
- Technical data for certain parts of the technical system has to be stored and evaluated over a long period of time.
- The costs of maintenance tasks have to be monitored for certain parts of the technical system.
- Analyzes what effects the usage conditions have on the likelihood of damage to the installed equipment.

The following applies to functional location master records:

- Define and manage each functional location in the Plant Maintenance (PM) component in a separate master record.
- Build up a separate maintenance history for each functional location.
- The labels for functional locations are structured hierarchically. It is possible to specify their structure according to the company criteria.
- Using hierarchical labels, the company can easily represent systems or operational structures from a functional perspective. The hierarchical structure of functional locations can therefore represent the interrelations of the operational functions within a system.
- Each hierarchy level of the functional location labels represents a given level of detail in the description of the system.

3.3.2 Functional Location Structure Indicators

The identification for functional locations is created using the structure indicator. The structure indicator consists of two input fields:

- Edit mask
- Hierarchy levels

The edit mask is used to control which characters may be used for identification (letters, numbers, or both) and how these characters are grouped together or split. The hierarchy levels are used to define which level ends at which character and how many hierarchy levels the structure may contain. A functional location can be identified using a maximum of 40 characters (= maximum length of the edit mask).

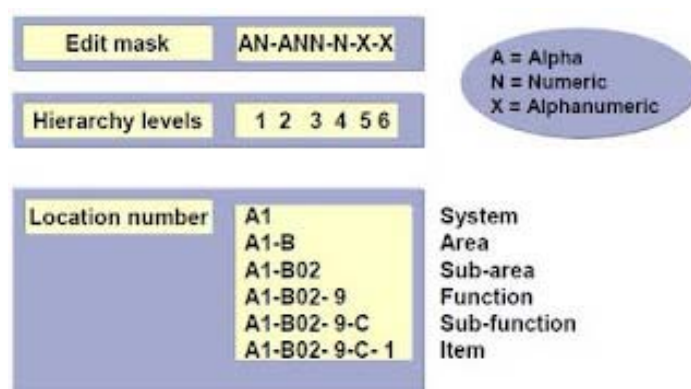


Figure 9 Example of SAP Hierarchy levels [21]

Functional Location records are structured hierarchically and their position in the structure is controlled by the coding of the structure indicator which identifies them. There are six structure indicators representing three industry standard coding systems used across E.ON UK namely.

- KKS Plant Identification System⁶⁵.
- Trigram Identification System and Trigram in Connah's Quay Power Station.
- PRA, Plant Reliability and Availability, format used in Ratcliffe Power Station.
- Wind Farm and Hydro Power Identification Systems

The table below shows the different identification system ways to use depending on the E.ON different business:

T370S		
Structure Indicator	Structure Indicator	
Structure Indicator	Edit Mask	Description
Z01	AAA-NN-AAA-NN-AANNXX-XXXXXX	KKS - Plant Identification System
Level	1 2 3 4 5 6 7 8	
Z02	AAA-XX-NNNN-AAA-XXXXXXXXXX	PRA - Plant Reliability & Availability
Level	1 2 3 4 5 6 7 8	
Z03	AAA-NX-AAA-XXX-XXX-XXXXXX	Trigram Identification System
Level	1 2 3 4 5 6	
Z04	AAA-XNN-AAA-NN-AANNXX-XXXXXX	Windfarm Identification System
Level	1 2 3 4 5 6 7 8	
Z05	AAA-AAA-NN-NNNN-XXX-XXXX	Hydro Power Plant Identification System
Level	1 2 3 4 5 6 7 8 9	
Z06	AAA-NX-AAA-XXX-XXXX-XXXXXX	Trigram - Connah's Quay
Level	1 2 3 4 5 6	

Table 1 Structure Indicator table worksheet in SAP PM Data Load Tables [4]

⁶⁵ See Appendix VI

3.3.3 Ratcliffe Power Station Plant Coding

Ratcliffe Power Station has been using the PRA ZU02 Structure Indicator for all the previous functional locations created. However, due to the new SCR installation across site, the KKS tag identification number has been mixed with the PRA Code which makes a combination between both coding systems. Consequently the level 8 code for the new locations will have KKS identification [16].

Index	PRA Suggested Object Type Assignment	
Level 7 of PRA Code	Description	Object Type
ACH	Acoustic Hood	
ACT	Electrical Actuator	EUK101
AGT	Agitator	
AHY	Hydraulic Actuator	EUK101
AIR	Compressed Air Dryer	EUK122
ALA	Alarm	EUK120
ALT	Alternator	EUK112
AMP	Amplifier	EUK120
ANA	Analyser	EUK120
APC	Gland Sealing Control Valve	EUK105
APN	Pneumatic Actuator	EUK101
ARR	Grit Arresters	
AUX	Auxiliary	
AVR	Auto Voltage Regulator	
BAT	Battery	EUK119

Table 2 Extract of the PRA Object type table used for the level 7 code of Ratcliffe Functional Location Structure [15]

The purpose of including the Object type is to have the same object type for same elements across fleet in order to produce a proper collection of history and identify common problems, spares that could determinate a good maintenance strategy for those functional locations.

Thus, according to the Plant Reliability and Availability Format (PRA) of Ratcliffe Power Stations, the following points have been taking into account in order to generate data load to SAP:

- *Site location code* stands for the Power Station e.g. RAT referring to RATCLIFFE.
- *Unit Specific code* referring to a specific unit within a Power Station. NU as Non Unit Specific and UX as a U1, U2, U3 or U4.
- *Plant Specific code* according to the computerized Maintenance Management System of the Power Station. E.g. 3550 for the ID Fans.
- *Plant Item abbreviation* that corresponds with Level 7 of the PRA Code⁶⁶.
- *Equipment Identification* using the KKS Power Plant Classification System.
- *Plant Item Description*.

⁶⁶ See Appendix IX

Site Location Code	Unit Specific Code	Plant Specific Code	Plant Item Abbreviation	Functional Location Identification	Plant Item Description
AAA	XX	NNNN	AAA	XXXXXXXXXX	Description
RAT	U3	3550	FAN	HNC10AN001	ID FAN A

Table 3: Ratcliffe Plant Numbering

Consequently the previous format will be concatenated⁶⁷ and used into SAP as a Functional Location on the following way:

- RAT-U3-3550-FAN-HNCAN001 as a Functional Location.
- U3 ID FAN A as a Short Text.
- U3 HNCAN001 ID FAN A as a Long Text.

3.3.4 Ratcliffe main SAP Functional Location Structure

Ratcliffe SAP structure is divided into five main sections. Four refers to the 500 MW generation units and the other one is related with all the common equipment of the power station or 'Non Unit' structure. The following figure shows how Ratcliffe is main structured on SAP. The locations selected for the SCR new plant during the first outage will be Unit 3 and Non Unit.

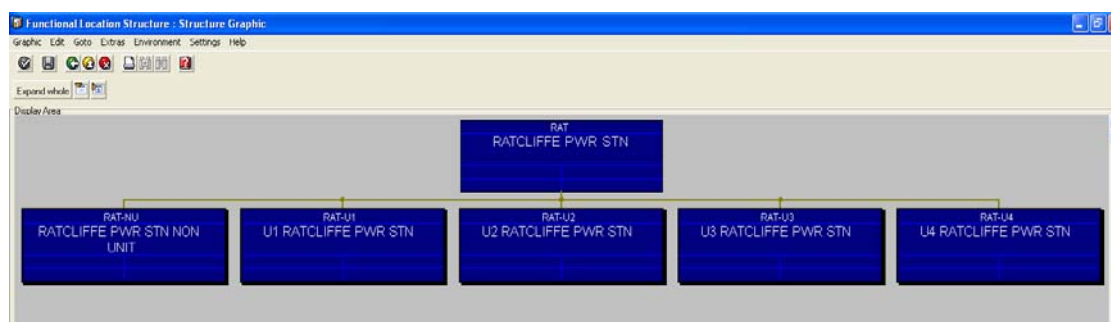


Figure 10 Ratcliffe SAP main structure graphic

3.4 SAP Plant Maintenance Business Processes

3.4.1 Master Data Process

All generation sites in E.ON UK are responsible for the management of their Master Data. All requests for new, or changes to, Master Data in SAP PM are managed and agreed by the sites PM Super User⁶⁸. Consequently, only PM Super Users are allowed to submit requests to the Master Data Central Control team.

Looking at Figure 10 the master data process⁶⁹ starts with a formal request made by a business user. It can be a request in conjunction with a new site build, new major modification (project) or a business as usual data change request. In our study case, SCR

⁶⁷ See Appendix VIII

⁶⁸ PM Super Users are required to undergo additional training to be authorised for the SAP system Super User role, which allows them to maintain some of the SAP PM Technical Objects.

⁶⁹ See Appendix IV for the process flow diagram boxes explanation

new project is including a formal request from a major project or modification of the existing plant. After verified the request by a PM Super User we have to consider if it is possible for the PM Super User to enter the requested Master Data manually into PM. If not because the size of the information to load, a Data Load request can be made. Due to the high amount of the SCR new Functional Locations (more than 5000) a Data Load request was made and it will be explained on the following section.

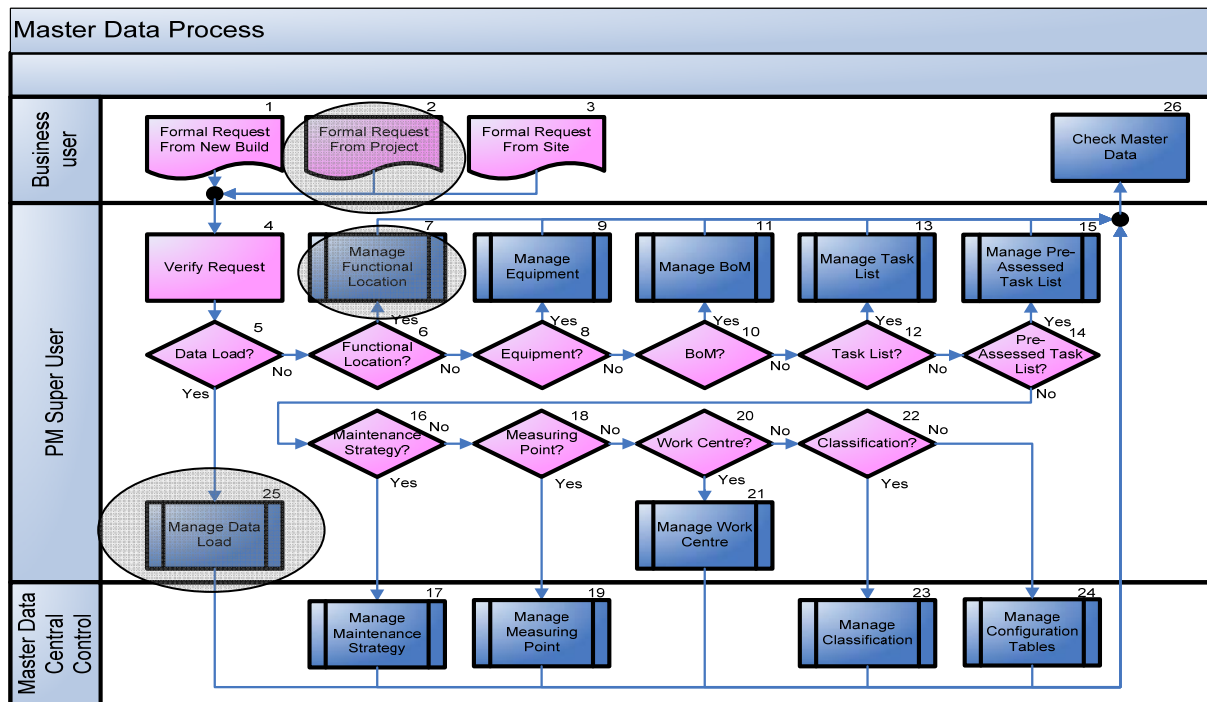


Figure 11 Business Process & Transaction Information Chart: Master Data Process (See appendix IV) [11]

3.4.2 Manage Data Load

Data required for loading by the Generation SAP Optimisation Team must be supplied in the appropriate Master Data Load Template were one exists. All Mandatory fields⁷⁰ must be completed before supplying to the Master Data Central Control team. Once the Master Data Load Template is ready, it has to be sent to the SAP PM Optimisation Team, where it will be manually validated. The process of validating the Completed Master Data Load Template may require confirmation emails and changes by the PM Super User to the supplied data before they are considered Validated. Consequently, the data load file is validated both manually and systematically using the Conversion step of the appropriate LSMW transaction and is uploaded into the test system on SAP QGL mode. Having check the perform of the Test Data Load the PM Super User must verify that the data load has been made correctly. If any mistakes have been made then there is an opportunity for them to correct the data load file before the Production load. Therefore, the PM Super User is responsible for making any changes they require. Once the changes have been confirmed, a copy of a rehearsal signoff document⁷¹ has to be returned and signed to the Generation SAP PM Optimization Team to be approve in order to transfer the data to the live SAP PGL system. The Technical

⁷⁰ See section

3.4.4 Documents involves on the Data Load Process for the SAP SCR Project.

⁷¹ See Appendix VI

Objects covered by Data Load Templates are: Functional Locations, Equipment, Work Centre, Task Lists, Maintenance Plans, BOMs⁷² and Measuring Points. In most cases these Data Loads only cover creation of new items with the exception of Functional Locations and Equipment records where change templates also exist.

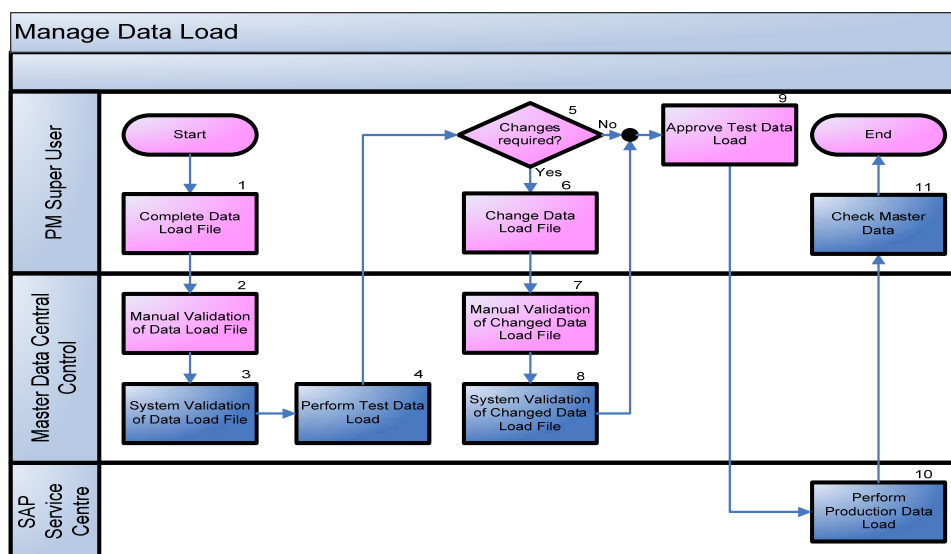


Figure 12 Business Process & Transaction Information Chart: Manage Data Load [11]

3.4.3 Manage Functional Location

Functional Locations will be created to represent the plant asset structure. Locations will be created as a result of additions to the plant structure, through the introduction of new plants, or alterations as a result of other project or site based requirements. The location records will be managed by the PM Super User unless a Data Load is required at which point the Master Data Central Control team will act upon formal requests from site PM Super Users to amend the plant structure.

An important feature of the Functional Location is the mandatory assignment of the Location and Plant Section fields which, in combination with a Maintenance Order PM Activity Type, determine the WBS element⁷³. The WBS element is assigned to a Maintenance Order when released and determines where the costs collected on a maintenance order are settled to. It is therefore essential that the correct WBS elements have been created in the system by Finance teams before the Functional Location is created.

On completion of the record a request is forwarded to the Senior Authorised Person responsible in order to update the safety documentation (typically Nissoft-Eclipse) to reflect any additions or changes to the structure. This is an important step in the process for safety and the setting to work policy.

⁷² Bills of Materials

⁷³ WBS Element: SAP module 'Project Systems' hierarchical Work Breakdown Structure element used as a cost collector.

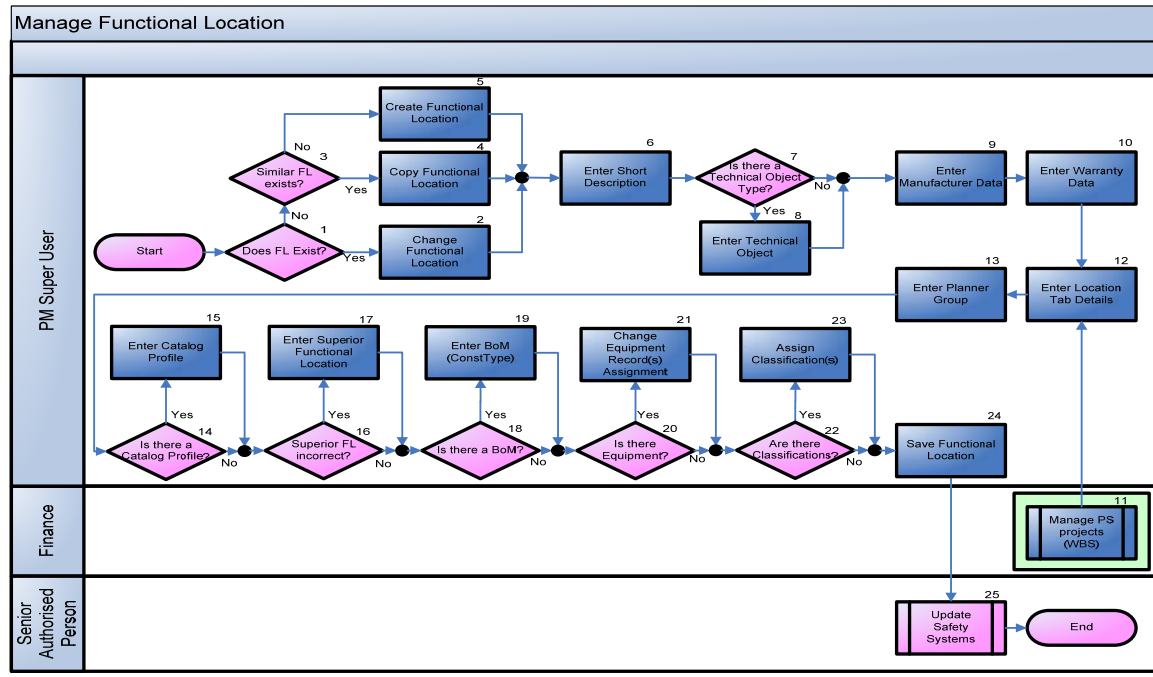


Figure 13 Business Process & Transaction Information Chart: Manage Functional Location [11]

3.4.4 Documents involves on the Data Load Process for the SAP SCR Project

The following documents have been used to load the SAP SCR project⁷⁴:

- *Main Functional Location file* includes all the mandatory fields that should be covered for the Master Data Load files. The following table shows the main fields that are required for a data load in SAP:

	Notes	ID Fans case example
FL ID Location	Structure controlled by Structure Indicator	RAT-NU-3558-VLV-PGB01AA105
Description	Upper Case Using Standard Abbreviations where possible	ID FAN VSD CW CHEM DOSING SUP 1 VLV
Parent Location	Must be present in SAP or created above in Data Load Template	RAT-NU-3558-VLV
Structure Indicator	Plant/Site specific	ZU02 (PRA - Plant Reliability & Availability)
Maintenance Plant	Plant/Site specific	5014 (Ratcliffe Power Station)
Planning Plant	Plant/Site specific	5014 (Ratcliffe Power Station)
WBS Element	Not Required Post Globe	Not Required Post Globe
Inventory Code	Generally the reference to the original plant record - Used in Searching and Filtering	-
Allow Equipment Installation?	Usually ! except at the lowest 2 levels of FL Structure Note on creation an ! must be used if no	-

⁷⁴ Those are the files specified on the Sign Off Form mentioned on the section before. See Appendix VI.

	Installation of Equipment is allowed since SAP makes this allowable by default On change if no change to the current setting is required the field can be left blank	
Single Equipment Installation?	Linked to Allow Equipment, blank if multiple Equipment records are expected on FL, otherwise X	X
Technical Object Type	Based on FL ID for KKS and PRA see Object Type Assignment table	EUK105
Catalog Profile	Not Required Post Globe	Not Required Post Globe
Sort Code	Used to capture the plant label - This field is printed on the order	NU PGB01AA105
Location	Site Specific Table set up by Maintenance Plant - Used in for Generating WBS Element	08 (Boiler Gas Systems)
Plant Section	Site Specific Table set up by Maintenance Plant - Used in for Generating WBS Element	0 (Ratcliffe Non Unit)
Manufacturer	Used in Searching and Filtering	Doosan Power Systems
Country of Manufacture	Used in Searching and Filtering	N/A
Manufacturer Model Number	Used in Searching and Filtering	N/A
Year of Construction	Used in Searching and Filtering	2011
Month of Construction	Used in Searching and Filtering	Collect via Classification
Manufacturer Part Number	Used in Searching and Filtering	Collect via Classification
Manufacturer Serial Number	Used in Searching and Filtering	Collect via Classification
ABC Indicator	Used in Searching and Filtering Specifies Criticality of Location	To determinate
EOF Load Record Y	End of File marker for SAP loads Must be on every record	Y

Table 4 Master Data Load Template fields applicable to ID Fans (based on [11])

- Long text descriptions file that includes the code for the functional location and the long text description of the item. For SCR project was set as shown:

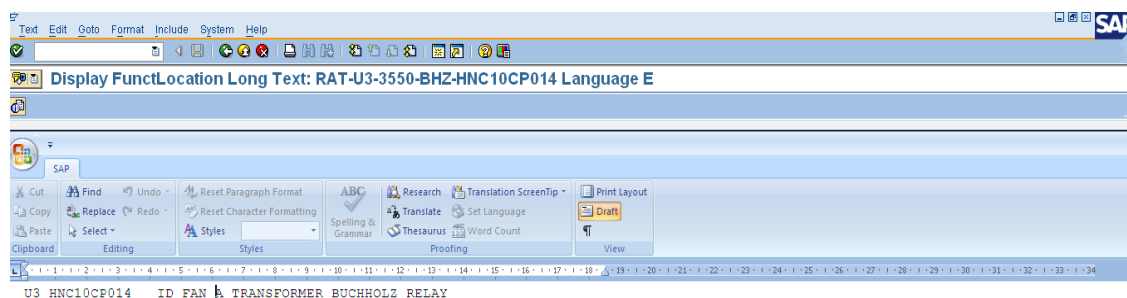


Table 5 Extract from ID Fan Long text description Data Load File and SAP final layout

- Classification file is achieved by assigning Classes to technical objects. Each Class contains Characteristics which provides the ability to describe objects on the basis of freely definable attributes. Classification is used to supplement the standard data in a Functional Location or Equipment record with asset specific information. The Master Data Central Control team maintains the Class and Characteristics in the system and Site Super Users have the responsibility to maintain the assignment of Classes.

Classification				
Classification Description	Classification Name	Characteristic Name	Characteristic Value	Characteristic Value Description
Actuator	U_F_ACT	U_G_ACT_TYPE	COMB	COMBINATION
Actuator	U_F_ACT	U_G_ACT_TYPE	ELEC	ELECTRIC
Actuator	U_F_ACT	U_G_ACT_TYPE	HYDR	HYDRAULIC
Actuator	U_F_ACT	U_G_ACT_TYPE	PNEU	PNEUMATIC
Compressor	U_F_COMP	U_G_COMP_TYPE	RECIP	RECIPROCATING
Compressor	U_F_COMP	U_G_COMP_TYPE	SCREW	SCREW
Compressor	U_F_COMP	U_G_COMP_TYPE	TURB	TURBINE

Table 6 Extract from classification file (See Appendix IX)

Display Functional Location: Classification

Functional loc. RAT-U1-3722-BKR-APA
Description U1 A PA FAN MTR 3.3KV VCB
Class type 003 Functional Location
Class U_F_SWGR Switchgear

Switchgear Type	HV	
Compliance - Prod, Eng & Maint	PEM212	PEM212 Switchgear
Compliance - Sfty, Hlth & Env		
A. Impact on Safety	5 5 - Severe	
B. Impact on Environment	1 1 - Negligable	
C. Impact on Operation	1 1 - Negligable	
Impact Criticality	HIGH High (5 or 6)	
Maintenance Planning Plant	5014	
Circuit Breaker Type	VACUUM ABB VD4	
Circuit Breaker Manufacturer	ENGLISH ELECTRIC	
Circuit Breaker Model	E3	
Circuit Breaker Operating Mech	SPRING	
Circuit Breaker Serial Number	VB0733	
Circuit Breaker Switchboard Ref	X	
Circuit Breaker Maint Strategy	ECBS004	ECBS004 EE E3 ABB
Circuit Breaker Voltage	HV	

Figure 14 Example of Classification in SAP

- The Abbreviation Macro file is a list of standard abbreviations that have been applied on E.ON Generation stations. The SAP PM Description Abbreviations Macro is a macro that has been developed by the Generation SAP Optimisation Team to automatically apply the latest abbreviations to any descriptions listed see below:

FUNCTIONAL LOCATION	DESCRIPTION	ABBREVIATED DESCRIPTION	LENGTH	Run Macro
TST	Main Boiler Feed Pump	MBFF	4	

Figure 15 SAP PM Description Abbreviations Macro- Description Worksheet

FUNCTIONAL LOCATION	DESCRIPTION	ABBREVIATED DESCRIPTION
RAT-NU-3555	ID FAN VSD SYSTEM	ID FAN VSD SYST
RAT-NU-3556	ID FAN VSD SECONDARY COOLING WATER SYSTEM	ID FAN VSD SEC CW SYST
RAT-NU-3556-RTD	ID FAN VSD SECONDARY COOLING WATER SYSTEM - RTD	ID FAN VSD SEC CW SYST - RTD

Table 7 Extract from Abbreviated Description Run Macro for the ID Fan loading process

To better understanding of this section Figure 16 shows the process from the creation of the structure on SAP until the users are able to look at the new Functional Location Structure. As it has been explained before the three Master Data files were sent to the SAP Optimisation Team to be revised and check into QGL mode. If the information is correct after some testings on QGL a confirmation of the SAP Development team will be sent to load the information into the live version.

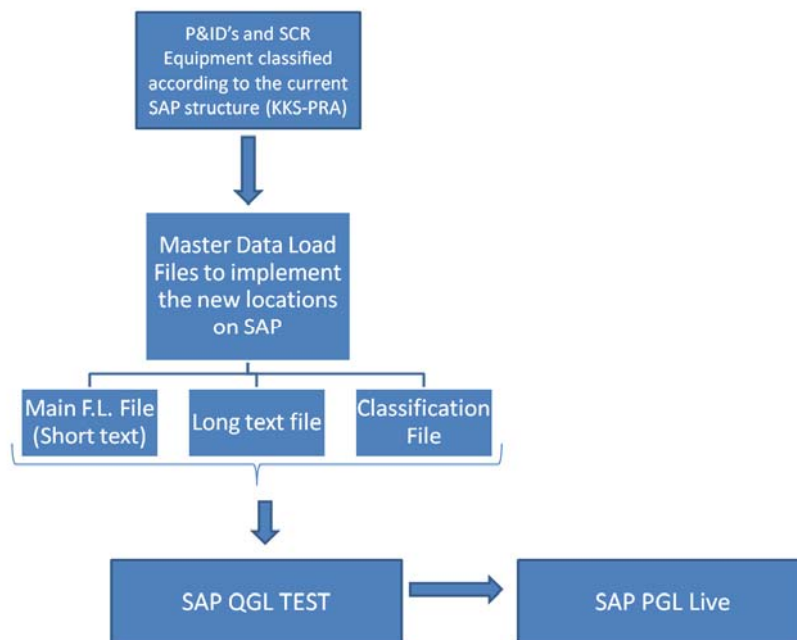


Figure 16 SAP Functional Location Master Data process

4 DESIGN AND IMPLEMENT A HIERARCHICAL SAP FUNCTIONAL LOCATION STRUCTURE TO ACCOMMODATE SCR PLANT. CASE INDUCED DRAUGHT (ID) FAN SYSTEM.

4.1 General Methodology

This section of the project was started identifying all the system related with the ID Fans. Several tours on plant were essential to better understanding of the system and a collection of Piping and Instrumentation Diagrams (P&ID) were studied paying special attention on the labelling and plant coding. Some plant visits were arranged to verify the information that was given to SAP team on the drawings in order to update the information with the construction process.

Once the master data was sent to E.ON UK SAP Development Team by the companies and engineers who were involved on the design process of the system and strict evaluation of the data was done. When classifying the information a logic structure had to be done according to SAP necessities and current structure.

4.2 Induced Draught Fan system

The ID fan is part of the boiler draught system; its purpose is to maintain a preset (negative) pressure inside the furnace under all operating conditions. As it has been stated earlier on, Ratcliffe Power Station comprises 4 x 500 MWe boiler units, in which two ID fans at 50% duty axial flow are operated in parallel per boiler. In other words, each SCR unit is fitted with two identical ID fans directly driven at a Variable Speed Drive (VSD) by an electric motor to control the furnace draft during boiler normal operation between minimum stable generation and maximum generated output.



Figure 18 ID Fan Motor



Figure 17 ID Fans Box Vane Dampers
Electronic Panels

The ID Fans are equipped with an actuated box vane inlet control damper. The fan rotor assemblies are supported inside a casing by pedestal mounted bearing assemblies and the drive shaft is connected to the pedestal-mounted motor by a solid coupling.

	Old	New
Voltage	3.3kV	6.6kV
Motors	Two	Two
Speed	Fixed	Variable
Oil pumps	2 – mechanical & electrical	2 – electrical
Oil cooled	Nat draught radiator	Air blast radiator
Vane	DVC	Inlet box
Brakes	1	2
Suction damper	2	2
Discharge damper	1	1

Table 8 Differences/Similarities between the old and the new system

To better understanding of the system Figure 19 shows the complete ID Fans process from the gases coming in from the precipitators to the exit of the gases coming out to the FGD plant. On start-up the fan bearing lubricating oil system is started and flow and pressure interlocks are satisfied, the fan suction isolation damper is opened and both ID brakes (run-down and maintenance brakes) are confirmed as being disengaged. The VSD is set to ramp the motor speed up to 300 rpm and then the fan motor is started. Once the fan is confirmed as running at the preset speed, the fan discharge isolation damper is opened and the (flow control) box-vane damper opened to a preset start-up position (nom. 80%)⁷⁵. Following this the box-vane damper and motor VSD are released to automatic mode so that the flow/pressure is automatically controlled to maintain the furnace pressure. On shutdown, the fan box-vane damper is shut, followed by shutting the inlet and outlet isolation dampers and reducing the VSD speed set point to a preset minimum value (Nom. 150 rpm). When the fan speed is reduced to minimum the motor power is removed and the run-down brake applied intermittently to reduce the fan speed to a low value (Nom. 100 rpm), the run-down brake is then applied to bring the fan to rest.⁷⁶

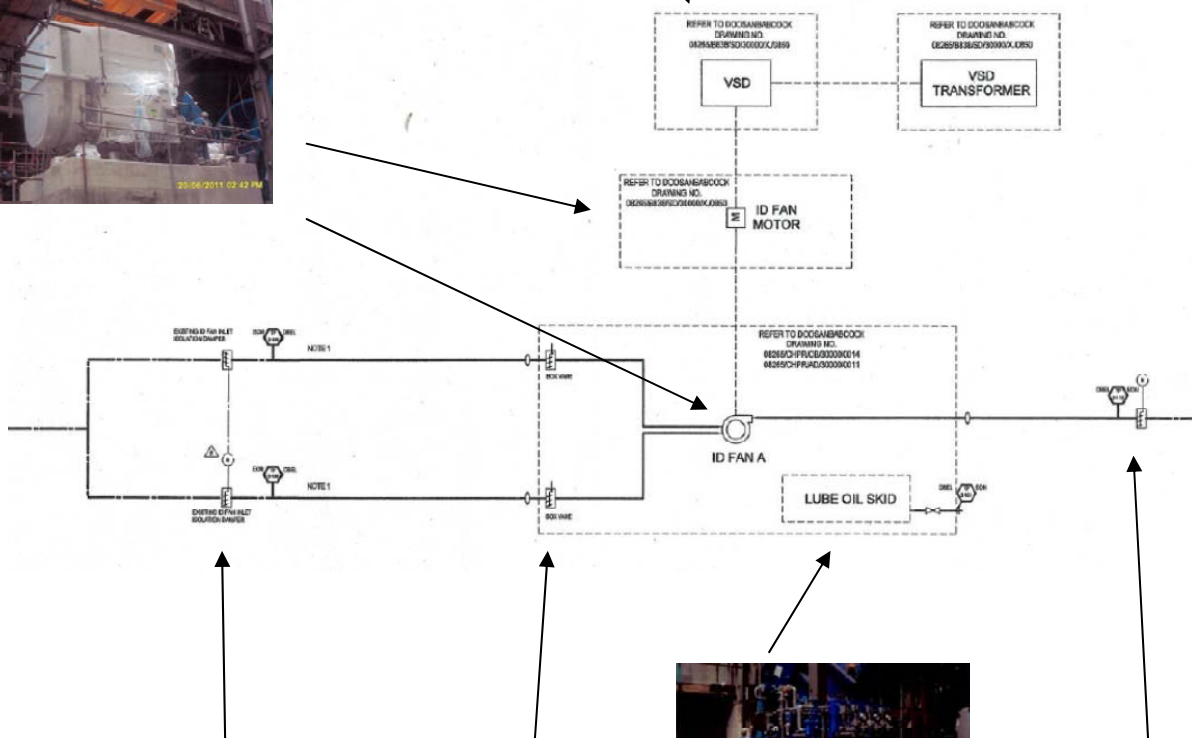
⁷⁵ Fan speed adjusts to keep the box damper between 65 & 80% open, this achieves optimum efficient operation.

⁷⁶ See Appendix XI for each component explanation.

VSD SYSTEM

11 KV / 6.6 KV TRANSFORMER

ID FAN MOTOR



INLET DAMPER



LUB OIL SYSTEM



BOX VANE CONTROL



OUTLET DAMPER

Figure 19 ID Fans Diagram Overview

4.3 Main Heading Structure Design on SAP

As explained on previous sections a hierarchic structure has to be considered when creating new functional locations. Looking at figure 20 it can be shown the starting point for the new design of the ID Fans structure on SAP. It corresponds to RAT-U3-355 main heading. In other words, all the new equipment has to be installed below that location.

Functional loc.	RAT	Valid From	02.12.2011
Description	RATCLIFFE PWR STN		
▷ RAT	RATCLIFFE PWR STN		
▷ RAT-NU	RATCLIFFE PWR STN NON UNIT		
▷ RAT-U1	U1 RATCLIFFE PWR STN		
▷ RAT-U2	U2 RATCLIFFE PWR STN		
▷ RAT-U3	U3 RATCLIFFE PWR STN		
▷ RAT-U3-1	U3 FUEL & ASH HANDLING SYST		
▷ RAT-U3-2	U3 FGD PLNT		
▷ RAT-U3-3	U3 BLR INCL SCR		
▷ RAT-U3-30	U3 BLR SCR		
▷ RAT-U3-31	U3 BLR STRUCTURE		
▷ RAT-U3-32	U3 BFW & SAT STM SYST		
▷ RAT-U3-33	U3 BLR SHT & RHT SYST		
▷ RAT-U3-34	U3 BLR COMB AIR SYST		
▷ RAT-U3-35	U3 BLR GAS PASS SYST		
▷ RAT-U3-350	U3 BLR GAS PASS SYST		
▷ RAT-U3-351	U3 BLR GAS PASSES		
▷ RAT-U3-352	U3 SCR - CONSTRUCTION		
▷ RAT-U3-353	U3 AIR HTR GAS SIDE CONNECTIONS		
▷ RAT-U3-354	U3 PRECIP		
▷ RAT-U3-355	U3 ID FAN SYST		
▷ RAT-U3-358	U3 CHMNY		
▷ RAT-U3-36	U3 BLR OIL BURNERS		
▷ RAT-U3-37	U3 BLR COAL FIRING SYST		
▷ RAT-U3-38	U3 BLR SBL		
▷ RAT-U3-39	U3 BLR PROT		
▷ RAT-U3-4	U3 TURBO-ALT		
▷ RAT-U3-5	U3 COND & FD SYST		
▷ RAT-U3-6	U3 ESS AUX		
▷ RAT-U3-7	U3 ANCILLARY SERV & AMENITIES		
▷ RAT-U3-8	U3 ELEC SYST		
▷ RAT-U4	U4 RATCLIFFE PWR STN		

Figure 20 Ratcliffe SAP Functional Location Structure. ID Fans starting point

Fans, motors, Brakes, Lubrication Oil Systems, VSD and VSD Primary and Secondary Cooling Systems were set as the main sections to study.

Thus, the following points were considered when designing the ID Fans SAP structure:

- Decide to create two separate sections for the lubrication oil systems due to the number of plant items. That will help the employees of the Power Station to find them easier.
- Huge VSD cooling system primary and secondary sections that required another two different sections to cover with detail.
- Non unit items have to have the same plant identification number as on unit to make the structure consistent.
- RAT-U3-3550 existing old plant code was modified and almost all of the items were replaced for the new KKS identification items. Consequently it was taken into account which elements remained of the old SAP ID Fans configuration.

- The Electrical Arrangement was included with the other Electrical Sections of the SCR Plant and it will be considered in the next section of this report.



Figure 21 Old ID Fan SAP heading structure

Thus, the design for the main headings of the structure is shown on table 9. Figures 22 and 22 are showing the print screens taken from SAP for the main sections of the SAP ID Fans system on Non Unit and Unit 3 headings. The same coding numbers have been used for both sections.

<i>Unit Specific code</i>	<i>Plant Specific code</i>	<i>Main Section description</i>
NON UNIT	355	ID FAN SYSTEM
NON UNIT	3555	ID FAN VSD SYSTEM
NON UNIT	3556	ID FAN VSD SECONDARY COOLING WATER SYSTEM
NON UNIT	3558	ID FAN VSD SECONDARY COOLING WATER CHEMICAL DOSING SYSTEM
UNIT	355	U3 ID FAN SYSTEM
UNIT	3550	U3 ID FAN SYSTEM
UNIT	3553	U3 ID FAN A LUBRICATION OIL SYSTEM
UNIT	3554	U3 ID FAN B LUBRICATION OIL SYSTEM
UNIT	3555	U3 ID FAN VSD SYST
UNIT	3556	U3 ID FAN VSD SECONDARY COOLING WATER SYSTEM

Table 9 SCR ID Fans SAP main structure design

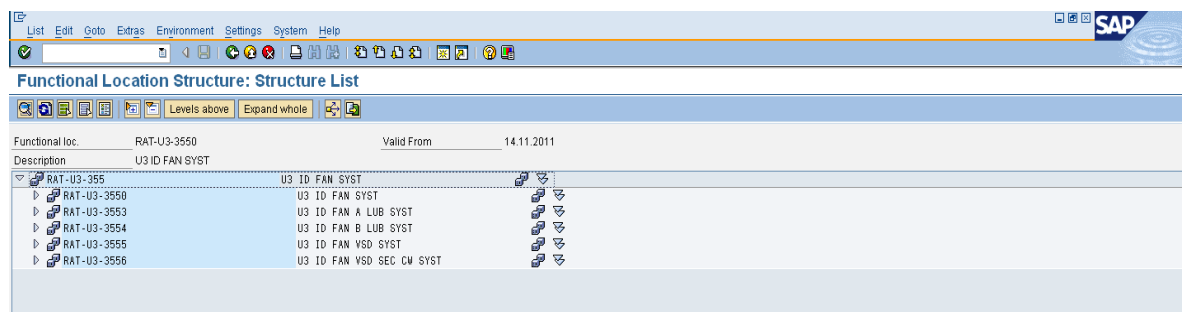


Figure 22 New ID Fan SAP Heading structure – Unit section

Functional loc.	RAT-NU-3550	Valid From	14.11.2011
Description	ID FAN SYST		
▼ RAT-NU-3550	ID FAN SYST		
RAT-NU-3550	ID FAN SYST		
RAT-NU-3555	ID FAN VSD SYST		
RAT-NU-3556	ID FAN VSD SEC CW SYST		
RAT-NU-3558	ID FAN VSD SEC CL6 WTR CHEM DOSING SYST		

Figure 23 New ID Fan SAP Heading structure – Non Unit section

Figure 24 shows with detail the main section of the ID Fans RAT-U3-3550 which includes the main parts of the system. Going further down the SAP hierarchy, Figure 25 shows an example of a subsection related with the Vibration elements of the ID Fans.

Functional loc.	RAT-U3-3550-VIB	Valid From	20.11.2011
Description	U3 ID FAN - VIBE		
▼ RAT-U3-3550	U3 ID FAN SYST	3	00
RAT-U3-3550-ACT	U3 ID FAN SYST-ACT	3	00
RAT-U3-3550-BKZ	U3 ID FAN - BKZ	3	00
RAT-U3-3550-BKR	U3 ID FAN SYST-BKR	3	00
RAT-U3-3550-BRG	U3 ID FAN SYST-BRG	3	00
RAT-U3-3550-BRK	U3 ID FAN SYST-BRK	3	00
RAT-U3-3550-CLR	U3 ID FAN SYST-CLR	3	00
RAT-U3-3550-DMP	U3 ID FAN SYST-DMP	3	00
RAT-U3-3550-DRV	U3 ID FAN SYST-DRV	3	00
RAT-U3-3550-FAN	U3 ID FAN SYST-FANS	3	00
RAT-U3-3550-FLT	U3 ID FAN SYST-FLT	3	00
RAT-U3-3550-HTR	U3 ID FAN SYST-HTR	3	00
RAT-U3-3550-IND	U3 ID FAN - IND	3	00
RAT-U3-3550-ING	U3 ID FAN SYST-ING	3	00
RAT-U3-3550-LIG	U3 ID FAN - LOCAL IGOL SW	3	00
RAT-U3-3550-LUB	U3 ID FAN SYST-LUB	3	00
RAT-U3-3550-LVL	U3 ID FAN - LVL GA	3	00
RAT-U3-3550-LVS	U3 ID FAN - LVL SW	3	00
RAT-U3-3550-MTR	U3 ID FAN SYST-MTR	3	00
RAT-U3-3550-PMP	U3 ID FAN SYST-PMP	3	00
RAT-U3-3550-PNL	U3 ID FAN - PNL	3	00
RAT-U3-3550-PWK	U3 ID FAN SYST-PWK	3	00
RAT-U3-3550-RTD	U3 ID FAN - RTD	3	00
RAT-U3-3550-SEN	U3 ID FAN - SEN	3	00
RAT-U3-3550-SWT	U3 ID FAN SYST-SWT	3	00
RAT-U3-3550-SWX	U3 ID FAN - SWX	3	00
RAT-U3-3550-IFR	U3 ID FAN SYST-IFR	3	00
RAT-U3-3550-TMK	U3 ID FAN SYST-TMK	3	00
RAT-U3-3550-TXS	U3 ID FAN SYST-TXS	3	00
RAT-U3-3550-VIB	U3 ID FAN - VIBE	3	00

Figure 24 New SAP Functional Location Structure for the 3550 common section

Functional loc.	RAT-U3-3550-VIB	Valid From	28.11.2011
Description	U3 ID FAN - VIBE		
▼ RAT-U3-3550-VIB	U3 ID FAN - VIBE	3	00
RAT-U3-3550-VIB-HNC10CY001	U3 ID FAN A MTR DE BRG VIBE ELEM	3	00
RAT-U3-3550-VIB-HNC10CY002	U3 ID FAN A MTR NDE BRG VIBE ELEM	3	00
RAT-U3-3550-VIB-HNC10CY005	U3 ID FAN A DE BRG VIBE ELEM	3	00
RAT-U3-3550-VIB-HNC10CY006	U3 ID FAN A NDE BRG VIBE ELEM	3	00
RAT-U3-3550-VIB-HNC20CY001	U3 ID FAN B MTR DE BRG VIBE ELEM	3	00
RAT-U3-3550-VIB-HNC20CY002	U3 ID FAN B MTR NDE BRG VIBE ELEM	3	00
RAT-U3-3550-VIB-HNC20CY003	U3 ID FAN B MTR NDE BRG VIBE ELEM 1	3	00
RAT-U3-3550-VIB-HNC20CY005	U3 ID FAN B DE BRG VIBE ELEM	3	00
RAT-U3-3550-VIB-HNC20CY006	U3 ID FAN B NDE BRG VIBE ELEM	3	00

Figure 25 Functional Location Structure List ID Fan Motor Vibration Elements

Finally it is shown on the next four pictures the appearance of a new ID Fan Functional Location. Let's consider the example of U3 ID Fan A (RAT-U3-3550-FAN-HNC10AN001).

There are four tabs include all the information that was loaded from the three files mentioned earlier on in this project:

- General which specifies the Object type (EUK116 FAN, see Appendix IX).
- Location which includes the main Location within Ratcliffe Power Station (Boiler Gas Systems) and which section (Unit 3) is referring to.

The image displays two screenshots of the SAP Functional Location Master data screen. The left screenshot shows the 'General' tab with fields for Class (U_F_FAN), Object type (EUK116), and various identification numbers. The right screenshot shows the 'Location' tab with fields for Main Plant (5014), Location (08), Plant section (3), and a table for Partners.

Figure 26 SAP Functional Location Layout Options Print Screen

- Organization is providing the company Code (5505 E.ON UK) and the Planning Plant (5014 Ratcliffe Power Station).
- Structure is displaying the Structure Indicator (PRA ZU02) and the superior functional location (RAT-U3-3550-FAN).

The image displays two screenshots of the SAP Functional Location Master data screen. The left screenshot shows the 'Organization' tab with fields for Company Code (5505), Planning plant (5014), and various organizational data. The right screenshot shows the 'Structure' tab with fields for Structure Indicator (ZU02), Superior Functional Location (RAT-U3-3550-FAN), and a table for Equipment.

Figure 27 SAP Functional Location Layout Options Print Screen

4.4 ID Fans Electrical Infrastructure

The circuit starts in the 11,000 V switchroom. Cables from this switchboard run to the new transformers where the voltage is stepped down from 11,000 volts to 6600 volts. From there the 6.6 kV cables snake away down the power station cable tunnels to the precipitators switchroom⁷⁷, where the electrical infrastructure is connected to the Variable Speed Drive (VSD), device that controls the speed of the ID Fans. From this point the cables run out to the ID Fan 4.3 MW Motor.

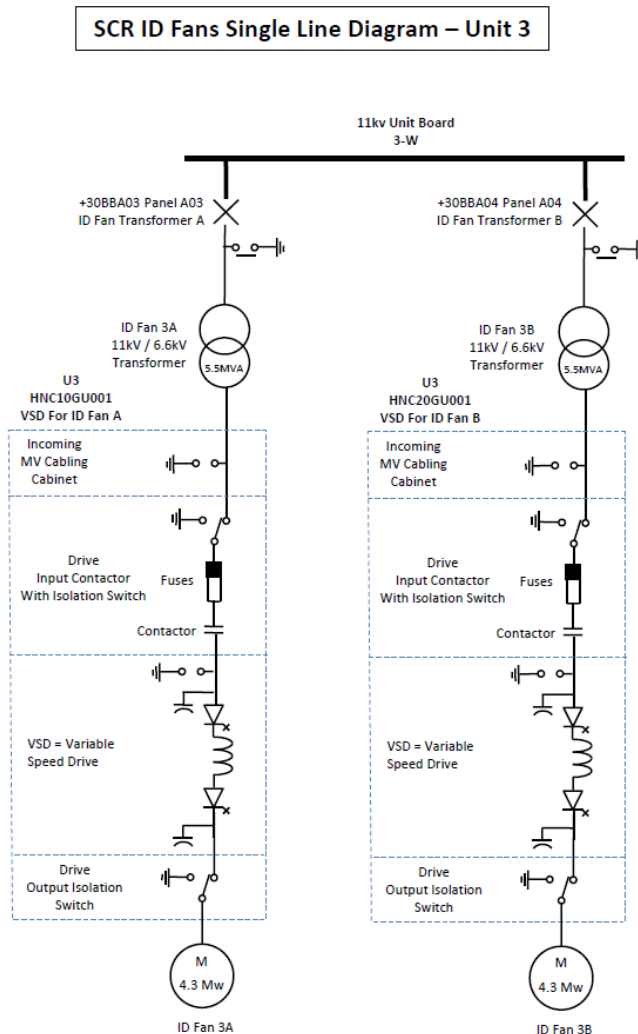
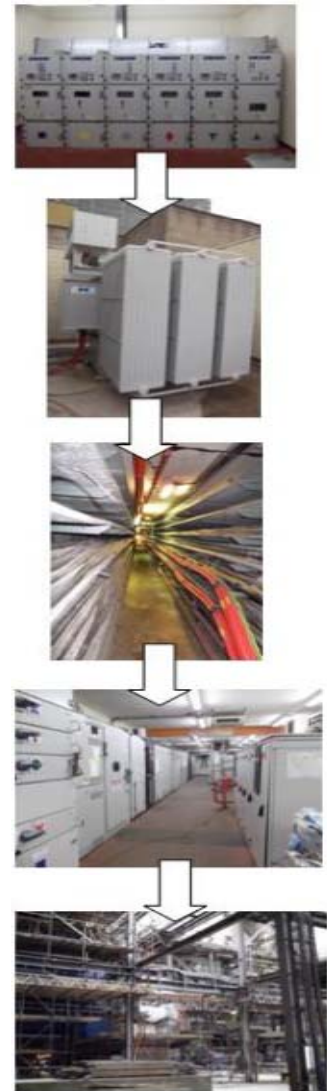
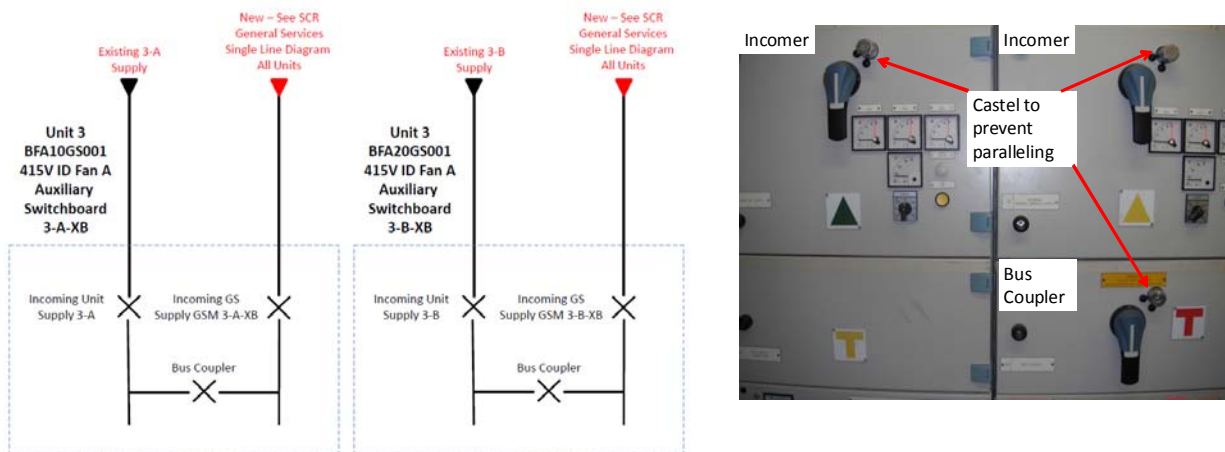


Figure 28 SCR ID Fans Single Line Diagram for Unit 3



The ID Fan system is fed from an auxiliary switch room design for the ID Fans. That room consists in two boards supplying A & B ID Fans. Each board is split with a bus coupler and is fed with alternatives supplies as it can show on figure 17. The first supplies are the existing feed to ID Fan switchboard from 'A' and 'B' 415 Volts Switchboards. The second supplies are a new arrangement coming from the Precipitators Switch room. This Switchroom is feeding all the items of the Lub Oil System, Brakes and Motor Heaterssee Figures 29 & 30).

⁷⁷ Originally was 415 V Switch room but due to the new VSD 6.6 kV technology the room has been arranged as a double door inside including the 6.6 kV section.



Figures 29 ID Fan Auxiliary Switchboard Single Line Diagram Unit 3 and picture taken on the Auxiliary Switchroom

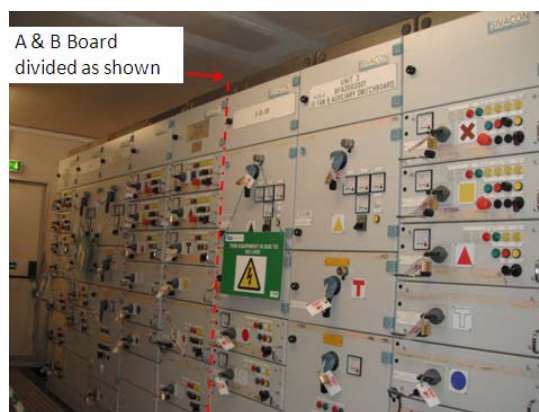


Figure 30 ID Fan A & B Board that feeds different systems

Having taken into account the considerations mentioned before the main design for the electrical configuration is:

RAT-U3-8411-SWG-BFA10GS001	U3 BFA10GS001	415V ID FAN A AUXILIARY SWITCHBOARD
RAT-U3-8411-SWT-IS-GSM-AXB	U3 GSM A-XB 415V SWITCHBOARD	INCOMING 415V ISOLATOR
RAT-U3-8411-SWT-IS-BC-AXB	U3 BUS COUPLER A-XB 415V SWITCHBOARD	INCOMING 415V ISOLATOR
RAT-U3-8411-FBD	U3 ID FAN A - FUSE BOARD	
RAT-U3-8411-FBD-BJA01GS004	U3 BJA01GS004	ID FAN Q-SUPPLY 110V 10 WAY GENERAL DIST BOARD
RAT-U3-8412-SWG-BFA20GS001	U3 BFA20GS001	415V ID FAN B AUXILIARY SWITCHBOARD
RAT-U3-8412-SWT-IS-GSM-BXB	U3 GSM B-XB 415V SWITCHBOARD	INCOMING 415V ISOLATOR
RAT-U3-8412-SWT-IS-BC-BXB	U3 BUS COUPLER 415V SWITCHBOARD	INCOMING 415V ISOLATOR
RAT-U3-8412-FBD	U3 ID FAN B - FUSE BOARD	
RAT-U3-8412-FBD-BJA01GS002	U3 BJA01GS002	ID FAN 4-WAY LTG & POWER DB

Table 10 ID Fan Electrical Infrastructure Long Text SAP Data Load

On Figure 31 it can be shown an example of the VSD Section Panels that is located on the precipitators switchroom. Figure 32 is showing the General Arrangement of the panels that was used to design the system.

Functional Location Structure: Structure List

Functional loc. RAT-U3-3555-PNL Valid From 28.11.2011

Description U3 ID FAN VSD SYST - CTRL PNL

Functional loc.	Description	Quantity	Unit
RAT-U3-3555-PNL	U3 ID FAN VSD SYST - CTRL PNL	3	DB
RAT-U3-3555-PNL-VSDA01	U3 ID FAN A VSD INCOMING LINE CAB	3	DB
RAT-U3-3555-PNL-VSDA02	U3 ID FAN A VSD INPUT CONTER CAB	3	DB
RAT-U3-3555-PNL-VSDA03	U3 ID FAN A VSD LINE REACTOR CAB	3	DB
RAT-U3-3555-PNL-VSDA04	U3 ID FAN A VSD HV CBL CONNECTIONS CAB	3	DB
RAT-U3-3555-PNL-VSDA05	U3 ID FAN A VSD INVRT / RECT CAB	3	DB
RAT-U3-3555-PNL-VSDA06	U3 ID FAN A VSD MTR FLT CAPACITORS CAB	3	DB
RAT-U3-3555-PNL-VSDA07	U3 ID FAN A VSD LINE FLT CAPACITORS CAB	3	DB
RAT-U3-3555-PNL-VSDA08	U3 ID FAN A VSD CHOKE CAB	3	DB
RAT-U3-3555-PNL-VSDA09	U3 ID FAN A VSD PMP CAB	3	DB
RAT-U3-3555-PNL-VSDA10	U3 ID FAN A VSD OUTPUT EARTH / SW CAB	3	DB
RAT-U3-3555-PNL-VSDB01	U3 ID FAN B VSD INCOMING LINE CAB	3	DB
RAT-U3-3555-PNL-VSDB02	U3 ID FAN B VSD INPUT CONTER CAB	3	DB
RAT-U3-3555-PNL-VSDB03	U3 ID FAN B VSD LINE REACTOR CAB	3	DB
RAT-U3-3555-PNL-VSDB04	U3 ID FAN B VSD HV CBL CONNECTIONS CAB	3	DB
RAT-U3-3555-PNL-VSDB05	U3 ID FAN B VSD INVRT / RECT CAB	3	DB
RAT-U3-3555-PNL-VSDB06	U3 ID FAN B VSD MTR FLT CAPACITORS CAB	3	DB
RAT-U3-3555-PNL-VSDB07	U3 ID FAN B VSD LINE FLT CAPACITORS CAB	3	DB
RAT-U3-3555-PNL-VSDB08	U3 ID FAN B VSD CHOKE CAB	3	DB
RAT-U3-3555-PNL-VSDB09	U3 ID FAN B VSD PMP CAB	3	DB
RAT-U3-3555-PNL-VSDB10	U3 ID FAN B VSD OUTPUT EARTH / SW CAB	3	DB

Figure 31 ID Fan VSD Panel Distribution SAP structure

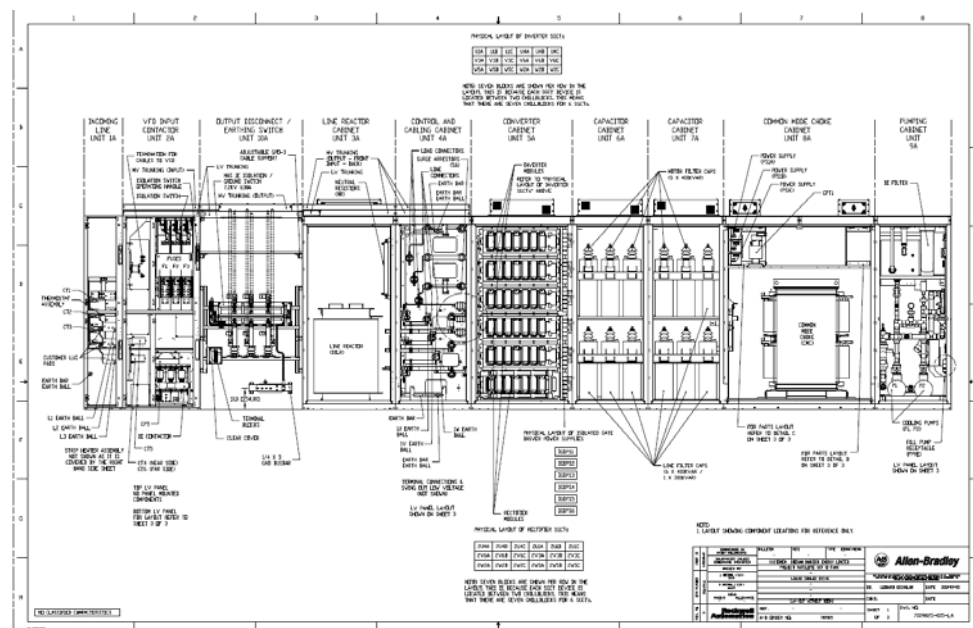


Figure 32 ID Fans VSD Panels General Arrangement

5 DESIGN AND IMPLEMENT A HIERARCHICAL SAP FUNCTIONAL LOCATION STRUCTURE TO ACCOMMODATE SCR PLANT. CASE AMMONIA PLANT

5.1 Description of the Ammonia Plant

For the SCR process anhydrous Ammonia is delivered to the station in liquid form. This is evaporated to its' gaseous form for injection into the SCR inlet ducts. At atmospheric pressure, the ammonia liquid will readily boil and evaporate to gas. The evaporation process will also cause significant cooling of the surroundings. The ammonia supply to the SCR reactors is divided into the following equipment subsystems:

- Anhydrous Ammonia Offloading & Storage (Bulk – supplying all units)
- Ammonia Forwarding & Vaporisation (Common to all units)
- Ammonia Vapour Accumulator (Common to all units)
- Ammonia Distribution (to Units)
- Ammonia Flow Control (per reactor)
- Air Dilution / Air Supply Skid (per reactor)
- Reactor Ammonia Distribution Grid (AIG)

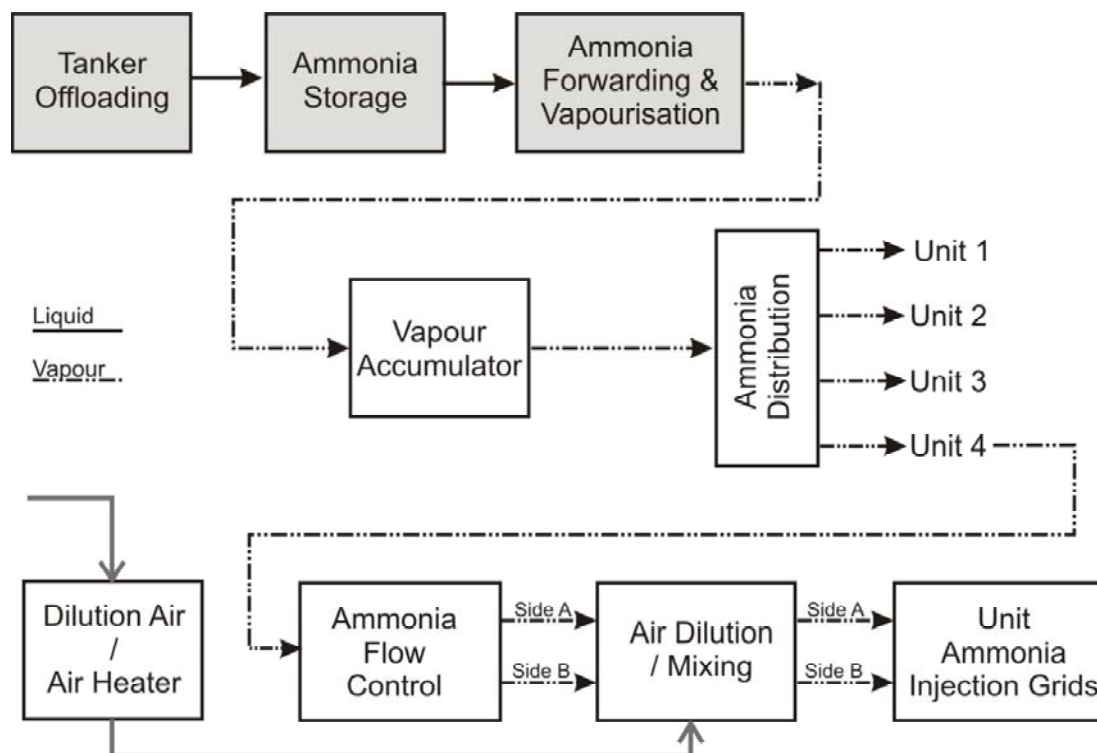


Figure 33 SCR Ammonia Process Block Diagram

5.2 Ammonia Plant Design on SAP

The way the system has been proposed to upload on SAP is according to the following process as described before. As it was set with the ID Fans it is necessary to choose the right plant location. The two options to design the Ammonia Common system were:

- Match the SCR unit numbers under 352
- Choose a new proposed location 16 that will provide more flexibility when designing the system on SAP

RATCLIFFE-ON-SOAR POWER STATION

REVISED NATIONAL COST CODE

DETAIL OF REPAIR AND MAINTENANCE - MAIN ACCOUNT COST CODE

	MAIN ACCOUNT 1st & 2nd DIGITS	MAIN ACCOUNT - 3RD DIGIT									
		0	1	2	3	4	5	6	7	8	9
FUEL HANDLING SYSTEM	1	FUEL & ASH HANDLING - GENERAL		FUEL OIL SUPPLY SYSTEM		COAL HANDLING RECEPTION CONVEYORS MOBILE PLANT	ASH & DUST HANDLING ASH CRUSHER DISPOSAL				DIESEL-GAS OIL SUPPLY STORAGE PIPEWORK
BOILER PLANT	3	BOILER PLANT GENERAL	STRUCTURAL STEELWORK	FEEDWATER ECONOMISER STEAM DRUM FURNACE TUBES	SUPERHEATER REHEATER ATTENPERATOR STEAM LINES STOP VALVES	FD FANS AIRHEATER DAMPERS	GAS SYSTEM PRECIPITATOR ID FAN CHIMNEYS	OIL - GAS FIXING SYSTEM	BUNKERS PA FANS SA FANS PF MILLS PF PIPEWORK	AUXILIARY SOOTBLOWERS	BOILER CONTROLS
TURBO GENERATOR	4	TURBO GENERATOR GENERAL	HP & IP TURBINES STEAM CHEST CYLINDERS ROTORS BLADING	LP TURBINES CYLINDERS BLADING	AUXILIARIES GLAND STEAM BLED STEAM DRAINS	OIL SYSTEM LUBRICATION OIL RECEPTION	GENERATOR ROTOR EXCITER STATOR TRANSFORMER SWITCHGEAR	GEN. AUX SYSTEM HYDROGEN COOLING STATOR COOLANT EXCITER COOLING	GOVERNING EQUIPMENT	CONDENSER TUBES DOSING SYSTEM	TURBINE CONTROLS
CONDENSATE AND FEED SYSTEM	5	CONDENSATE AND FEED SYSTEM GENERAL	CONDENSATE EXTRACTION PUMP MAKE UP SYSTEM	LP FEED HEATING DEAERATOR LP CHEMICAL DOSING	TURBINE DRIVEN MAIN BOILER FEED PUMP		START UP FEED PUMPS	HP FEED SYSTEM HP HEATERS		FEED PUMP SUPPORT SYSTEM	
ESSENTIAL AUXILIAR- IES	6	MAINS & AUX CW SYSTEM GENERAL	CW MAKE UP CW PUMPS - CHLORINATION COOLING TOWERS	WATER TREATMENT EVAPORATION DEMIN PLANT SUPPLY SYSTEM	GENERAL SERVICES WATER SYSTEM	GAS STORAGE CO ² HYDROGEN	AUXILIARY DIESEL GENERATORS				COMPUTER AND DATA PROCES'G
ANCILLARY SERVICES AND AMENITIES	7	ANCILLARY SERVICES GENERAL	COMPRESSED AIR SYSTEMS COMPRESSORS	TOWN WATER DOMESTIC WATER	FIRE FIGHTING DETECTION	TRANSPORT TELEPHONES	CIVIL WORKS DRAINS ROADS LAWNS GARDENS	BUILDINGS ADMIN BLOS HEATING AIR CONDITION'G	CRANES LIFTS HOISTS	WORKSHOP TOOLS & EQUIPMENT LABORATORY EQUIPMENT	ENVIRON- MENTAL MONITOR- ING EQUIP'T
ELECTRICAL SYSTEMS	8	ELECT'L SYSTEMS GENERAL	STATION & UNIT TRANSFORM'S SWITCHGEAR	AUXILIARY TRANSFORMERS	SERVICE TRANSFORMERS	SERVICES SWITCHBOARD	DISTRIBUTION SWITCHBOARD	GUARANTEED SUPPLIES SYSTEM	DC SUPPLIES SYSTEM	STATION DISTRIBUTION SYSTEM	COMMON CONTROL ALARM & INDICAT'N
GAS TURBINE GENERATOR	9	GAS TURBINE GENERAL	GAS GENERATOR AEROTYPE	FREE POWER TURBINE	DIRECT CONNECTED HV PLANT	DUCTING CHIMNEY					CONTROL AND INST'MTS

AC7AAR

Figure 34 Ratcliffe Power Station PRA Codes

The first option would be easier to match and identify with the unit items and will follow the original idea of the SCR system on SAP. However due to the big amount of items and processes from ammonia offloading until injection it was agreed to choose the new plant code 16 that corresponds with Fuel Handling Systems (number 1) and Ammonia will be located to number 6. Therefore the main headings of the process will be located under 3 digits which will help to provide better flexibility and space to include every aspect of the process.

On Figure 33 it can be summarize the Ammonia process described before:

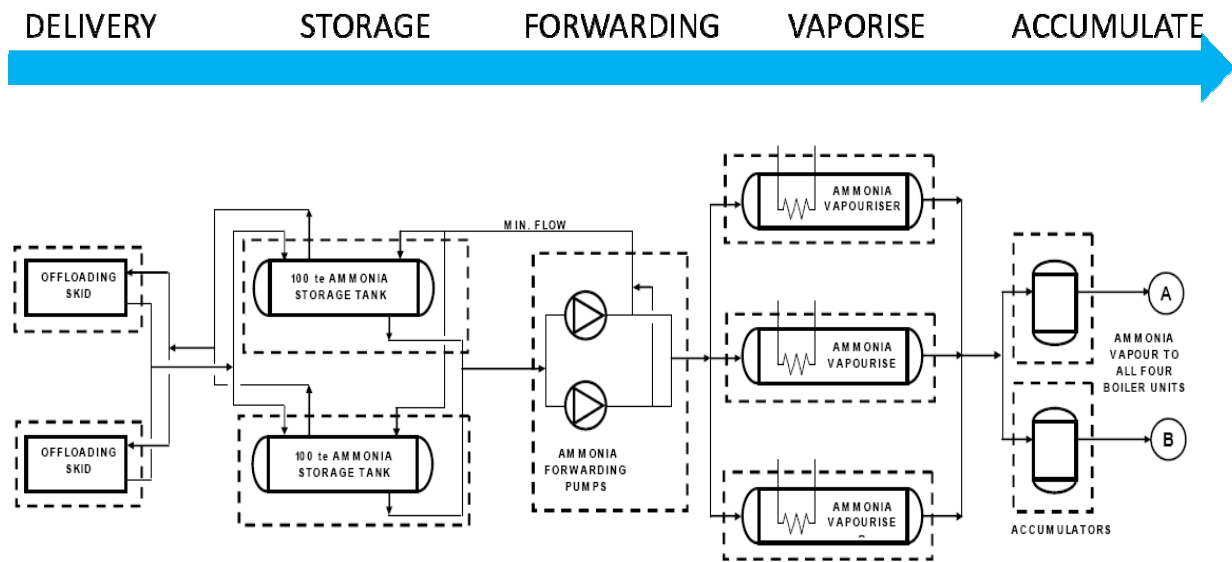


Figure 35 Ammonia Plant Process

The structure is based on the main 5 steps of the process: Delivery, Storage, Forwarding and Vaporization and Accumulators. The other parts of the SAP design are the Scrubber and Fogging System and the Ammonia Leak Detection System. Additional locations for the ammonia distribution system to each unit and common items were created as well.

Due to the large amount of valves during the ammonia process (more than 800) the design has been done minimizing the number of valves per location and taking into account the different lines. Thus, for all of the processes there is a distinction between:

- Ammonia line
- Nitrogen purge section
- Air instrumentation section
- Safety pressure relief system line (vents)

On table 15 it can be shown the proposed design that will be uploaded onto SAP QGL test mode:

SCR	Common Ammonia
NU	16 SCR Common Ammonia
	160 Ammonia Common System
	1600 Spare
	1601 Ammonia Safety Showers
	1602 Ammonia Plant Area Sump
	1603 Ammonia Plant Air Supply / Receiver System
	1604 Ammonia Plant Electrical Auxiliaries
	161 Ammonia Delivery System
	1610 Ammonia Offloading Common (Safety Showers, Sump)
	1611 Ammonia Offloading A System
	1612 Ammonia Offloading A Nitrogen System
	1613 Ammonia Offloading A Air Instrument System
	1614 Spare
	1615 Ammonia Offloading B System
	1616 Ammonia Offloading B Nitrogen System
	1617 Ammonia Offloading B Air Instrument System
	1618 Spare
	1619 Ammonia Offloading Manifold System
	162 Ammonia Storage System
	1621 Ammonia Storage Tank A System
	1622 Ammonia Storage Tank A Nitrogen System
	1623 Ammonia Storage Tank A Air Instrument System
	1624 Ammonia Storage Tank A Pressure Relief System
	1625 Ammonia Storage Tank B System
	1626 Ammonia Storage Tank B Nitrogen System
	1627 Ammonia Storage Tank B Air Instrument System
	1628 Ammonia Storage Tank B Pressure Relief System
	163 Ammonia Forwarding System
	1630 Ammonia Forwarding Manifold
	1631 Ammonia Forwarding Pump A System
	1632 Ammonia Forwarding Pump B System
	1633 Ammonia Forwarding Pump Supply, Outlet and Return Header
	164 Ammonia Vaporiser System
	1641 Ammonia Vaporiser A System
	1642 Ammonia Vaporiser A Nitrogen and Water System
	1643 Ammonia Vaporiser A Air Instrument System
	1644 Ammonia Vaporiser B System

1645	Ammonia Vaporiser B Nitrogen and Water System
1646	Ammonia Vaporiser B Air Instrument System
1647	Ammonia Vaporiser C System
1648	Ammonia Vaporiser C Nitrogen and Water System
1649	Ammonia Vaporiser C Air Instrument System
165	Ammonia Accumulators System
1651	Accumulator A
1652	Accumulator B
1653	Accumulators Air Supply System
166	Ammonia Scrubber System
1660	Ammonia Scrubber System
167	Ammonia Fogging System
1670	Ammonia Fogging System
168	Ammonia Leak Detection and Alarm System
1680	Ammonia Plant Perimeter Gas Detectors
1681	Ammonia Offloading Gas Detector
1682	Ammonia Storage Tank Gas Detector
1683	Ammonia Vaporiser Gas Detector
1684	Ammonia Accumulators Gas Detector
1685	Ammonia Plant Alarms
1686	Ammonia Flame and Heat Detectors
1687	Ammonia Emergency Shutdown
169	Ammonia Distribution System
1690	Ammonia Distribution System

Table 11 SAP Ammonia Main Headings Structure

5.3 Electrical infrastructure

The ammonia plant will be fed via two 3.3kV/415V transformers to a new 415V Ammonia Plant switchboard located between transformers within ammonia bund area.

The supplies for each transformer are from the 3.3kV General Services switch boards GSYY- Section "A" & GSYY- Section "B". The two transformers are identified as AM 1 (Ammonia Plant Tx No.1) & AM 2 (Ammonia Plant Tx No.2).

Transformers AM1 & AM2 both supply the 415V Ammonia Plant Switchboard Sections "A" & "B". The board has a bus Coupler. Fed from here will be supplies to:

- Electric bath vaporiser heaters
- Ammonia forwarding pumps
- Ammonia scrubber pumps

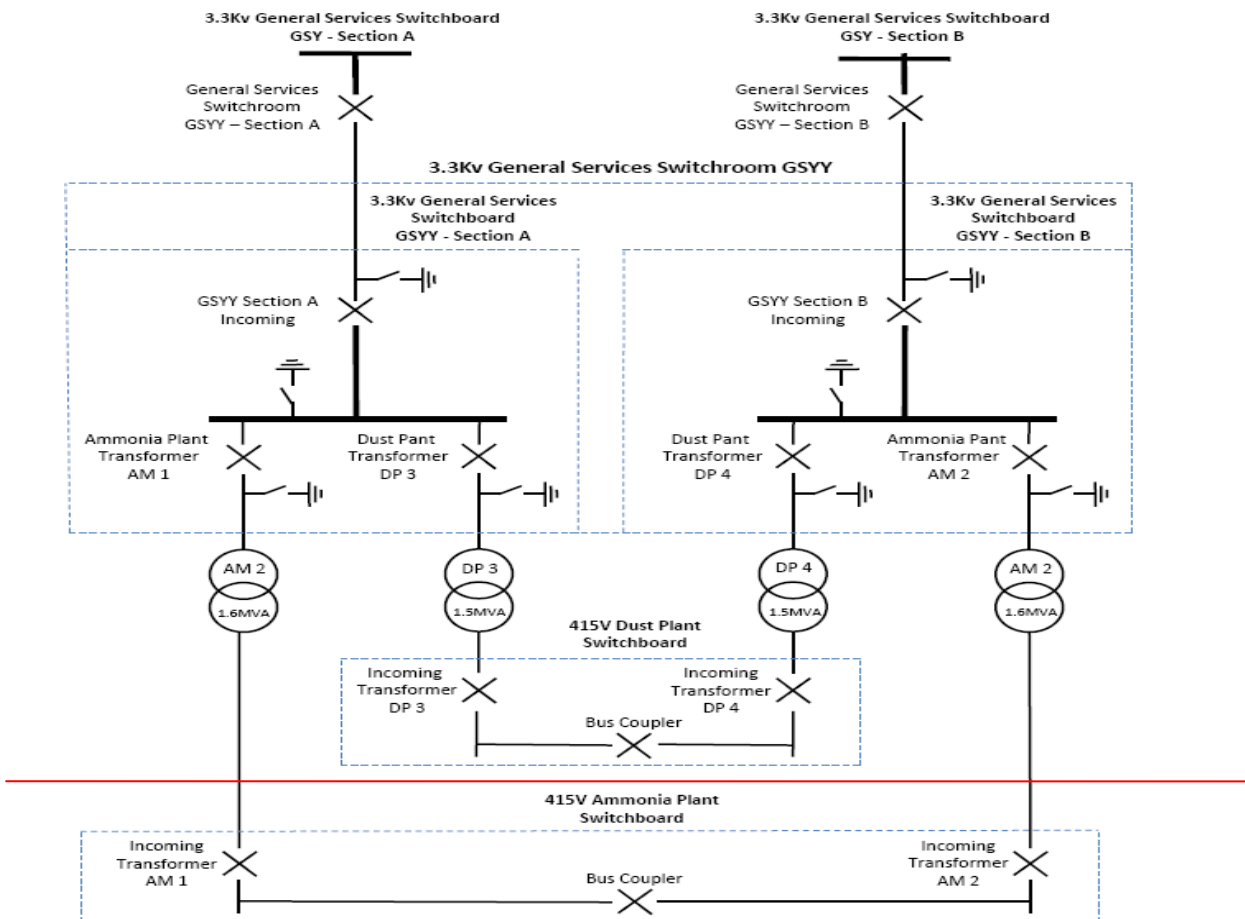


Figure 36 Ammonia Common Plant Electrical General Arrangement

Figure 36 shows the Electrical Arrangement for the Ammonia Common Plant. Red line shows the starting point on the structure. The items below that line were located already on SAP and there were discussed with the other SAP Team Members to find the best location for the new ones. Thus, the following locations were created to install on the system.

RAT-NU-8452-BKR-BFY01GS001	Ammonia Plant Switchboard Incoming Transformer AM1
RAT-NU-8452-BKR-BFY01GS002	Ammonia Plant Switchboard Incoming Transformer AM2
RAT-NU-8452-BKR-BFY01GS003	Ammonia Plant Switchboard Buscoupler
RAT-NU-8452-SWG-BFA01GS001	415V Ammonia Plant Switchboard

Table 12 New Ammonia Electrical Locations

6 CRITICALITY STUDY

The Maintenance Strategy is fundamentally about managing the company asset risks. By doing those strategies it can be demonstrated which plant items are critical and when they were last maintained, when they will be next maintained, how they should be maintained and know why that is the right thing to do. In addition, by identifying critical equipment we can devise maintenance strategies that reduce the risk of failure, and by collecting work history we can optimize those strategies to reduce the cost of maintenance.

Thus, a Maintenance Strategy will facilitate more effective management of the risks, reducing cost, time and effort, and to ensure compliance with safety and environment legislation. In relation with that, SAP provides the tools that are needed to do this and this is an opportunity to maximize the benefits of SAP.

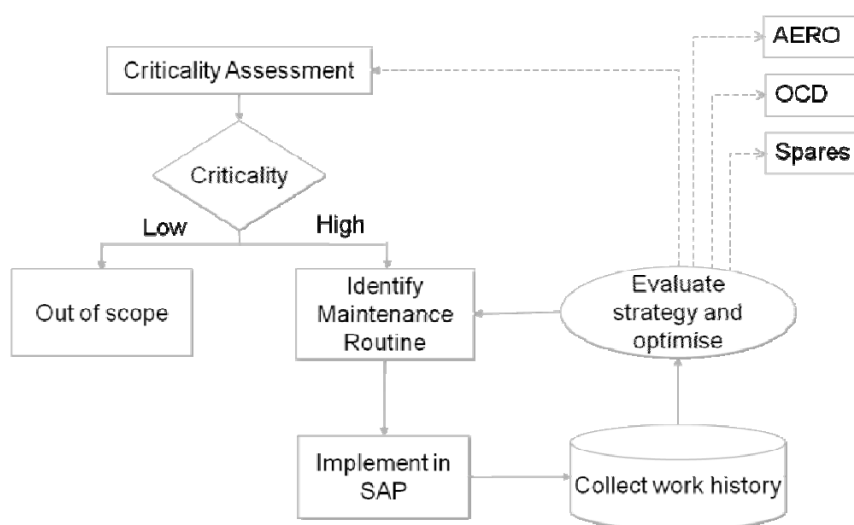


Figure 37 Criticality Study Process

6.1 Criticality Assessment

A critical item is considered when Equipment whose failure could cause or substantially contribute to a major incident or whose purpose is to prevent or limit the effect of a major incident. The aim of this stage is to identify critical equipment 3 areas:

- Safety Critical
- Environmentally Critical
- Operationally Critical

Thus, the data will be broken down by plant area and discipline and will be reviewed with the relevant engineering teams and operational staff. The Consolidated Risk Assessment Matrix (CRAM)⁷⁸ will be used in applying impact scores using a range where 1 is negligible to 6 being catastrophic in Safety, Environmental or Operationally with 5's and 6's in all disciplines classed as critical. The final output of the Criticality Assessment Phase will be that all

⁷⁸ See Appendix XII

functional locations have been reviewed and impact scored for safety, environmentally and operationally with all critical equipment scored 5/6 flagged A, B or C respectively in SAP.

On Figure 38 it can be shown the results for the Critical Items of the 600 ID Fans Functional Locations. The three first columns refer to each location, description of the item and which object type is related. The column 'level' refers to the Functional Location Dropdown levels and shows 'f' which corresponds to a Functional Location that describes a single item of plant. The discipline shows if it refers to an electrical o mechanical item. The last four columns show the score for the three areas mentioned before. For the ID Fans locations Safety on Transformers, Fans, VSD and Buchholz relays is the most critical area. Consequently the Impact Score is the highest of those three areas.

SAP Functional Location or Hierarchy	Description of Plant Item	Object Type	Level	Discipline	Safety	Environment	Operation	Impact Score
RAT-U3-3550-BHZ-HNC10CP014	U3 ID FAN A TFR BUCHHOLZ REL	EUK106 Transformer	f	e	5	1	4	5
RAT-U3-3550-BHZ-HNC20CP014	U3 ID FAN B TFR BUCHHOLZ REL	EUK106 Transformer	f	e	5	1	4	5
RAT-U3-3550-FAN-HNC10AN001	U3 ID FAN A	EUK116 Fan	f	m	5	2	4	5
RAT-U3-3550-FAN-HNC20AN001	U3 ID FAN B	EUK116 Fan	f	m	5	2	4	5
RAT-U3-3550-TFR-HNC10GT001	U3 ID FAN 3A 11/6.6KV TFR	EUK106 Transformer	f	e	5	1	4	5
RAT-U3-3550-TFR-HNC20GT001	U3 ID FAN 3B 11/6.6KV TFR	EUK106 Transformer	f	e	5	1	4	5
RAT-U3-3555-INV-HNC10GU001	U3 VSD FOR ID FAN A		f	e	5	2	4	5
RAT-U3-3555-INV-HNC20GU001	U3 VSD FOR ID FAN B		f	e	5	2	4	5

Figure 38 Critical Items for ID Fans U3 section

7 EVALUATION OF THE PROJECT AND FUTURE ACTIONS

The main objective of this project was to create a design and implementation of a hierarchical functional location structure to accommodate the SCR plant. That was achieved through several months of training and development on technical areas to get a better understanding of the Selective Catalytic Reduction System and commercial areas to gain specialized knowledge on SAP Plant Maintenance for Engineers. In addition this document has outlined the detail and requirements for the PRA-KKS coding structure used to identify plant at Ratcliffe-on-Soar Power Station and it has addressed the coding requirements for successful implementation of the SCR plant.

Thus, the measurable results of the author of this document together with the SAP Development team are:

- Creation of 5000 Functional Locations that refers to Unit 3 and Non Unit Sections of the Ratcliffe SAP Structure.
- 700 of which SCR locations were related to the ID Fans and 2000 related to the Ammonia Common Plant.
- Determination of Criticality Levels (Safety, Environmental and Operational) of some of more than 3000 SCR SAP Functional Locations.
- Started to create some of the maintenance routines for some of the Critical Items.

In addition a collection of history has been done to show how the system has been used from the time that the locations were created on SAP. Figure 39 and 40 show a collection of the ID Fans SAP Notifications and Orders that were raised from November 2011 (month of ID Fans location creation). The idea with this collection of history is to record if the locations have been used and if further training opportunities are required for the employees of the Power Station to better understanding of the new SAP structure.

Notification	Notif.date	Description	Functional loc.	Order	Planner group	Priorit	System status
10114296	06/11/2011	U3 B ID Fan I/L damper	RAT-U3-3550-DMP-B-INLET	1080296374	Z03	1	NOCO ORAS
10114287	06/11/2011	U3 B ID Fan D/C damper	RAT-U3-3550-DMP-B-OUTLET	1080296376	Z03	1	NOCO ORAS
10116507	01/12/2011	u3 B ID FAN LUBE SYSTEM ALARM	RAT-U3-3550-FAN		Z20	2	OSNO
10116802	05/12/2011	u3 B ID FAN VSD alarms	RAT-U3-3555-PNL-VSDB09		Z20	2	OSNO
10117027	06/12/2011	U3 ID Fan "B" Lub oil system alarm.	RAT-U3-3554		Z20	2	OSNO
10117082	07/12/2011	B ID Fan inlet damper	RAT-U3-3550-DMP-HNC02AA001	1080304033	Z03	2	NOCO ORAS
10117457	11/12/2011	u3 A ID FAN OUTLET DAMPER LINKAGE U/S	RAT-U3-3550-DMP-HNC01AA002	1080304101	Z01	3	NOPR ORAS
10118606	24/12/2011	U3 "B" ID Fan lub oil filter diff Alarm	RAT-U3-3554-FLT-HNC20AT001		Z01	1	NOCO
10120990	22/01/2012	B ID Fan vibs alarm p2/5	RAT-U3-3550-VIB-HNC20CY005	1080312970	Z03	2	NOCO ORAS
10121195	24/01/2012	u3 ID Fan B DE bearing vib p2	RAT-U3-3550-VIB	1080314898	Z20	2	NOCO NOPT ORAS
10124843	04/03/2012	U3 ID Fans lub oil leaks	RAT-U3-355		Z20	3	NOPR
10129276	20/04/2012	B' ID fan	RAT-U3-3550-IND		Z20	2	OSNO
10129319	21/04/2012	3B ID Fan lub oil pack alarm	RAT-U3-3554-VLV-HNC20AA004		Z20	2	NOPR

Figure 39 Collection of ID Fans SAP notifications

Order	Order Type	Bas. start date	Description	Functional loc.	Notification	Priority	User status	System status
1080296374	ZU01	07/11/2011	U3 B ID Fan I/L damper	RAT-U3-3550-DMP-B-INLET	10114296	1	COMP	TECO CNF PRT NMAT PRC SETC
1080296376	ZU01	07/11/2011	U3 B ID Fan D/C damper	RAT-U3-3550-DMP-B-OUTLET	10114287	1	COMP	TECO CNF PRT NMAT PRC SETC
1080297777	ZU03	15/11/2011	Replace ID Fan B VSD Circuit boards	RAT-U3-3550-FAN-B-AUTO		1	INPG	REL PRT NMAT PRC SETC
1080299740	ZU01	26/11/2011	A ID Fan brake thruster limit switch	RAT-U3-3550-BKR		3	COMP	TECO PRT MANC NMAT PRC SETC
1080300358	ZU03	26/11/2011	U3 ID Fan Temp Chiller Flush	RAT-U3-3550		1	COMP	CLSD PRT NMAT PRC SETC
1080304101	ZU01	13/12/2011	u3 A ID FAN OUTLET DAMPER LINKAGE U/S	RAT-U3-3550-DMP-HNC01AA002	10117457	3	INPG	REL PCNF PRT MANC NMAT PRC SETC
1080304033	ZU01	13/12/2011	B ID Fan inlet damper	RAT-U3-3550-DMP-HNC02AA001	10117082	2	COMP	CLSD CNF PRT NMAT PRC SETC
1080304384	ZU01	14/12/2011	U3 'B' ID fan O/L damper	RAT-U3-3550-DMP-HNC02AA002		2	INPG	REL PRT NMAT PRC SETC
1080305716	ZU03	22/12/2011	Test Run ID Fans A & B	RAT-U3-3555-INV		3	COMP OBJ	TECO PRT NMAT PRC SETC
1080312124	ZU03	20/01/2012	U3 ID Fan Modify Coupling Gaurds	RAT-U3-3550		2	COMP	TECO PRT GMPS NMAT PRC SETC
1080312970	ZU01	25/01/2012	B ID Fan vibs alarm p2/5	RAT-U3-3550-VIB-HNC20CY005	10120990	2	COMP	TECO CNF PRT NMAT PRC SETC
1080314898	ZU01	01/02/2012	u3 ID Fan B DE bearing vib p2	RAT-U3-3550-VIB	10121195	2	COMP	TECO PRT MANC NMAT PRC SETC
1080317014	ZU03	10/02/2012	Unit 3 ID Fan Work	RAT-U3-3550		2	INPG	REL PRT NMAT PRC SETC
1080326086	ZU03	21/03/2012	U3 ID FAN CONTROL CABLE RE-ROUTE	RAT-U3-3550		3	SCHD	REL MANC NMAT PRC SETC
1080327925	ZU03	28/03/2012	U3 B ID Fan Impeller inspection	RAT-U3-3550-FAN-HNC20AN001		1	COMP	TECO PRT MANC NMAT PRC SETC
1080330990	ZU03	16/04/2012	Plating/repair of ID fan crane leg	RAT-U3-3550		2	INPG	REL PRT NMAT PRC SETC
1080326422	ZU03	16/05/2012	Carry out listed works toU3 ID Fan VSD A	RAT-U3-3555-INV		3	SCHD	REL ESTC MANC NMAT PRC SETC

Figure 40 Collection of ID Fans SAP Work Orders

However, one of the most repeated issues when creating the SAP structure was to deal with one of the company main contractors. Thus, information such a plant items description, files on the wrong format and inconsistency between plant tags and the information received made the process slower than expected and several meetings with internal and external stakeholders were arranged. For that reason the objective set at the beginning of the project to cover a maintenance strategy for the implemented items on SAP had to be postponed for the next months in cooperation with the SCR Engineering Team. Consequently, future actions that have been set for the following months will be:

- Production of planned maintenance routines and Task lists, Risk Assessments and Method Statements.
- Identification of key spares (BOMs).
- Further collection and Monitoring of Maintenance History to make sure that the system has been used.
- Develop an optimum maintenance strategy for the new plant.

All the equipment identified as critical will be reviewed ensuring that appropriate maintenance is being carried out. Where there is no local guidance for specific equipment maintenance generic strategies will be developed with a view to aligning all sites and critical routines end to end process will be managed in SAP.

SAP will allow a meaningful work history to be collected; for example it is not sufficient to record that a sensor was calibrated; we must also record how it was found and what work was done so that we can optimise the intervals between routine maintenance and inspection. Thus, identifying critical equipment and collecting the work history associated with them will allow us to assess the routines entered in SAP and modify them if necessary. Existing processes such as AERO⁷⁹ and outage strategies are currently being developed and written for all critical equipment using industry best practice in failure modes and effects analysis (FMEA). SAP Rules are being developed with templates provided to ensure that Maintenance Plans, Task Lists and the collation of history will be a common process across Ratcliffe Power Station and rest of the Generation sites.

Lastly I will like to mention the amount of effort and interest shown of all my colleagues during all the phases of this project and remark the incredible learning experience that I have been involve for more than ten months working with engineers in a Power Station. It has been an excellent personal and professional opportunity to start my career and I hope that this document will contribute to a better understanding of the computerized management system in a Power Station.

⁷⁹ Consolidated Asset Engineering Risks and Opportunities (AERO)

ANEXO II: E.ON RATCLIFFE ENVIROMENTAL UPDATE PROJECT & RATCLIFFE POWER STATION 2011 ACHIEVEMENTS



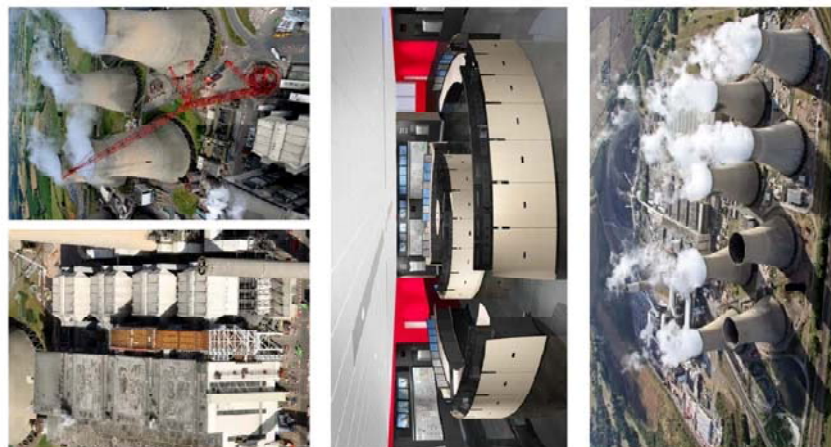
Figure I REUP Outline [4]



Figure II Ratcliffe Power Station 2011 Achievements [4]



Ratcliffe Environmental Upgrade Project Unit 3 Shutdown



Finance & Schedule Information

- Capex cash spend was £138.3M against outturn of £137.7M (0.4% variance).
- Unit 3 outage delivered within 7% of agreed programme.
- Unit 4 interim outage delivered to time, budget and incident free.

Other Information

- Year end Project TRIF of 6.05
- Project Systems Training of 150 staff, and key contract staff.
- 196 Quality Issues raised.
- There were 24 milestones to achieve, with 17,716 tick boxes, of which 16,552 have now been completed.
- Risk - Over 400 risks raised and managed, with over 550 mitigation actions put in place to deal with them.

Key Achievements

- First SCR Retrofit in UK Completed, with 7,000 metres of pipework and over 2,000 cables installed.
- Full Softdesk Conversion in addition to all Plant Integrity Scope.
- Cooling Towers 1B and 2B re-packed with 76,000 man hours completed and approximately 19,000 cubic metres of pack produced and installed, with 0 TRIF.
- 205 tonnes of asbestos removed from Ratcliffe, with 100 separate asbestos enclosures, with over 91,000 man hours completed.
- Fitted 2 new LP rotors, fitted a new IP rotor and overhauled the HP Turbine.
- Boiler weld repair rate at 0.17% was a superb achievement against 10,000 new welds. There were also 3,000 SCR field welds completed.

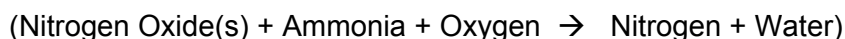
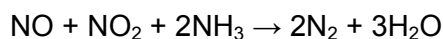
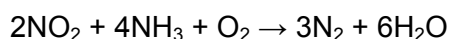
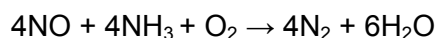
Figure III Ratcliffe U3 Shutdown [4]

ANEXO III a: SELECTIVE CATALYTIC REDUCTION (SCR)

Selective Catalytic Reduction (SCR) is a chemical process by which the nitrogen oxides, formed during combustion, are decomposed to nitrogen and water vapour. This is done by injecting a gaseous reducing agent; typically Ammonia (NH₃) into the flue gas stream and contacting the mixture with a rare metal oxide catalyst. The catalyst is required to promote the reduction reaction by surface adsorption of the reactant gas molecules and subsequent migration of the reaction products from the catalyst into the gas stream.

In power stations, this technology is employed for removal of NO_x from the flue gas of boilers used in power generation and industry. The SCR unit is generally located between the furnace economizer and the air heater and the ammonia is injected into the catalyst chamber through an ammonia injection grid. As in other SCR applications, the temperature of operation is critical and this is because at lower temperatures the injected ammonia may react with sulphur trioxide (SO₃) in flue gas to form ammonium bisulphate (NH₄HSO₄) that could form a solid that deposits on the catalyst surface and reduces catalyst effective area and adversely effects catalyst life.

The NO_x reduction reaction takes place as the gases pass through the catalyst chamber. Before entering the catalyst chamber the ammonia, or other reductant (such as urea), is injected and mixed with the gases. The available surface area and cleanliness of the catalyst surface is a key factor in the NO_x conversion efficiency. The reaction, detailed below, is typically carried out when the flue gas temperature at catalyst / air heater inlet is at or above 305° C [5].



Ammonia slip is also an issue with SCR technology used in power plants because high levels of residual (unreacted) ammonia in the gas stream, downstream of the SCR, are undesirable both from economic and emissions viewpoints. Consequently, the ammonia injection rate ahead of the SCR is continuously regulated to meet NO_x reduction efficiencies while keeping “slip” to within acceptable levels.

A further operational difficulty in coal-fired boilers is the binding of the catalyst by fly ash from the fuel combustion. This requires the usage of sootblowers, sonic horns and careful design of the ductwork and catalyst materials to avoid plugging by the fly ash.

Nowadays, many applicable coal plants in the UK are currently considering the feasibility of an SCR retrofit or are at design/construction and commercial selective catalytic reduction systems are typically found on large utility boilers, industrial boilers, and municipal solid waste boilers and have been shown to reduce NO_x by 70-95%. At Ratcliffe, SCR has been shown to be capable of reducing NO_x emissions by up to 85%, and will allow the power station to comply with more stringent environmental emissions limits due to come into force from 2015. Furthermore, the aim is to be the UK's first coal fired site with SCR installed and

operational.

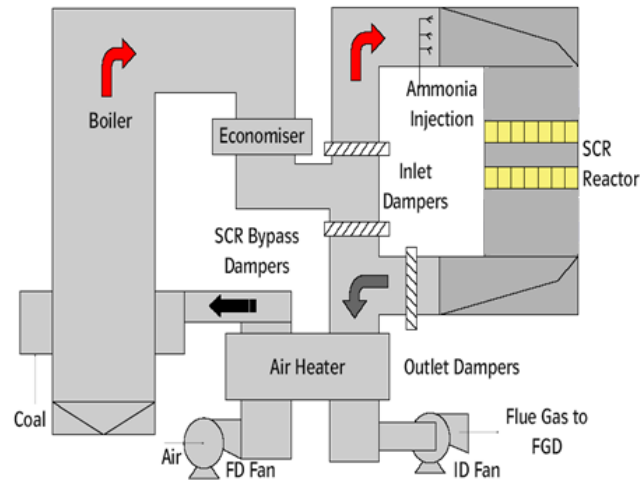


Figure IV Ratcliffe Power Station SCR layout [4]

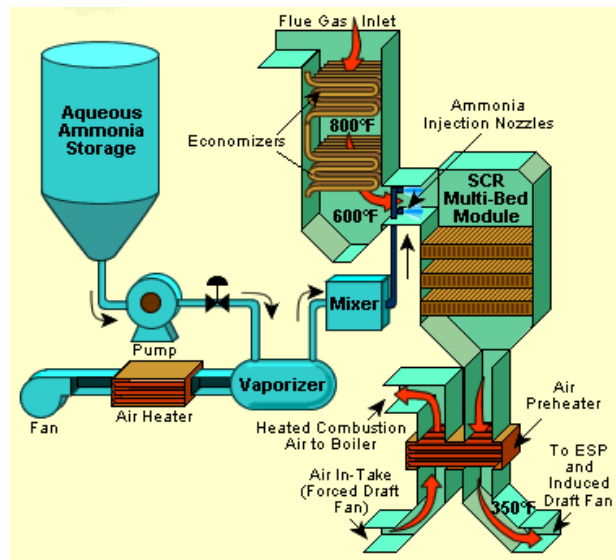


Figure V Example of SCR system in a Power Station [7]

ANEXO III b: EXTRACT FROM ENVIROMENTAL PROTECTION AGENCY – U.S.A. (RCS - TECNOLOGÍA DE CONTROL DE LA CONTAMINACIÓN DEL AIRE) [17]

- **Nombre de la Tecnología:** Reducción Catalítica Selectiva (*Selective Catalytic Reduction, SCR*).
- **Tipo de Tecnología:** Dispositivo de Control - Reducción Química por medio de un agente reductor y un catalizador.
- **Contaminantes Aplicables:** Óxidos de Nitrógeno (NO_x)
- **Límites de Emisión Alcanzables/Reducción:** La RCS es capaz de eficiencias de reducción de NO_x en el rango de 70% al 90%. Reducciones mayores son factibles, pero generalmente no son efectivas en costo.
- **Tipo de Fuente Aplicable:** Punto.
- **Aplicaciones Industriales Típicas:** Unidades estacionarias de combustión de combustible fósil, tales como calderas generadoras de electricidad, calderas industriales, calentadores de proceso, turbinas de gas y motores de combustión interna. Además, la RCS ha sido también aplicada a plantas de ácido nítrico.
- **Características de la emisión:**
 1. Tamaño de la Unidad de Combustión: En los Estados Unidos, la RCS ha sido aplicada a calderas generadoras de electricidad que queman carbón y gas natural de tamaño que varía de 250 a 8,000 MMBtu/hr (25 a 800 MW). La RCS puede ser efectiva en costo para calderas industriales grandes y calentadores de proceso que operan con factores de capacidad altos o moderados (>100 MMBtu/hr ó >10MW para unidades que queman carbón y >50 MMBtu/ hr ó >5MW para unidades que queman gas). La RCS es una tecnología ampliamente usada en turbinas grandes de gas.
 2. Temperatura: La reacción de reducción de NO_x es efectiva solamente dentro de un rango de temperatura dado. El rango óptimo de temperatura depende del tipo de catalizador utilizado y la composición del gas de combustión. Las temperaturas óptimas varían desde 480°F a 800°F (250°C a 427°C). Los sistemas de SCR típicos toleran fluctuaciones en la temperatura de ± 200°F (± 90°C).
 3. Carga de Contaminantes: La SCR puede alcanzar eficiencias de reducción altas (>70%) en concentraciones de NO_x tan bajas como 20 partes por millón (ppm). Niveles más altos de NO_x resultan en un incremento en el rendimiento, sin embargo, a concentraciones por encima de 150 ppm, la razón de reducción no incrementa significativamente. Los niveles altos de azufre y materia particulada (PM) en la corriente del gas residual aumentan el costo el costo de la SCR.
- **Otras Consideraciones:** El escabullimiento de amoníaco se refiere a las emisiones de amoníaco no reaccionado debido a la reacción incompleta del NO_x y el reactivo. Los escabullimientos de amoníaco pueden causar:

- a) formación de sulfatos de amonio, los cuales pueden tapar ó corroer a los componentes del sistema corriente abajo.
- b) la absorción del amoníaco en la ceniza flotante, la cual puede afectar la disposición o la reutilización de la ceniza.

Los niveles permitidos de escabullimiento de amoníaco se comprenden de 2 a 10 ppm. El escabullimiento de amoníaco a estos niveles no resulta en la formación de pluma de contaminante ni en peligros para la salud. La optimización del proceso después de la instalación puede disminuir los niveles de escabullimiento de amoníaco.

Las emisiones de gas de combustión con altos niveles de materia particulada (MP) pueden requerir un soplador de hollín. Los sopladores de hollín son instalados en el reactor del RCS para reducir la deposición de la materia particulada en el catalizador. También reduce el ensuciamiento del equipo corriente abajo a causa de los sulfatos de amoníaco.

La presión del gas residual disminuye significativamente mientras fluye a través del catalizador. **La aplicación de la RCS generalmente requiere la instalación de un ventilador de tiro inducido nuevo ó uno mejorado para recobrar la presión.**

- **Requisitos del Pre-tratamiento de las Emisiones:** El gas de combustión puede requerir calentamiento para subir la temperatura al rango óptimo para la reacción de reducción. El azufre y la MP pueden ser removidos del gas de combustión para reducir la desactivación del catalizador y el ensuciamiento del equipo corriente abajo.
- **Teoría de la Operación**

El proceso de la RCS reduce químicamente la molécula de NO_x a nitrógeno molecular y vapor de agua. Un reactivo a base de nitrógeno tal como el amoníaco o la urea se inyecta en los ductos, corriente abajo de la unidad de combustión. Los gases de combustión se mezclan con el reactivo y entran a un módulo reactor que contiene un catalizador. Los gases de chimenea calientes y el reactivo se difunden a través del catalizador. El reactivo reacciona selectivamente con el NO_x dentro de un rango de temperatura específico y en presencia del catalizador y oxígeno.

La temperatura, la cantidad del agente reductor, el diseño de la rejilla de inyección del amoníaco y la actividad del catalizador son los factores principales que determinan la eficiencia de remoción real. El uso del catalizador resulta en dos ventajas principales del proceso de la RCS sobre la RSNC⁸⁰: eficiencia de control de NO_x más alta y reacciones dentro de un rango más amplio y más bajo. Los beneficios se acompañan por un incremento significativo en los costos de capital y de operación.

El catalizador está compuesto de metales activos o cerámicas con una estructura altamente porosa. Las configuraciones de los catalizadores son generalmente de diseños de panal y de placa de metal plisada (monolito). La composición del catalizador, el tipo y las propiedades físicas afectan el funcionamiento, la confiabilidad, la cantidad de catalizador requerido y el costo. El proveedor del sistema de RCS y el proveedor del catalizador generalmente garantizan la vida del catalizador. Los diseños más nuevos de catalizadores aumentan la actividad del catalizador, el área de superficie por unidad de volumen y el rango de temperatura para la reacción de reducción.

La actividad del catalizador es una medida de la razón de la reacción de reducción de NO_x y es una función de muchas variables incluyendo la composición del catalizador y su estructura, las razones de difusión, las razones de transferencia de masa, la temperatura del gas y la composición del gas. La desactivación del catalizador es causada por:

⁸⁰ RSNC o SNCR: Reducción Selectiva No Catalítica ó Selective Non-Catalytic Reduction

- a) Envenenamiento de los sitios activos por constituyentes del gas de combustión,
- b) Sinterización térmica de los sitios activos debido a las altas temperaturas dentro del reactor,
- c) Taponamiento/cegado/ensuciamiento de los sitios activos por sales de amoníaco y azufre y materia particulada,
- d) Erosión debida a altas velocidades de gas.

A medida que la actividad del catalizador disminuye, la remoción del NO_x disminuye y el escabullimiento de amoníaco aumenta. Cuando el escabullimiento de amoníaco alcanza el nivel máximo del diseño o el permitido por la ley, debe instalarse un nuevo catalizador. Son varias las diferentes localidades corriente abajo de la unidad de combustión donde puede instalarse el sistema de la RCS. La mayoría de las aplicaciones de carbón sitúan el reactor corriente abajo del economizador y corriente arriba del calentador de aire y de los dispositivos de control de particulado (lado caliente). El gas de combustión en ésta localidad está usualmente dentro del rango de temperatura óptima para reacciones de reducción de NO_x que utilizan catalizadores de óxidos de metal. La RCS también puede ser aplicada después del equipo de remoción de azufre y MP (lado frío), sin embargo, puede requerirse el recalentamiento del gas de combustión, lo cual incrementa significativamente los costos de operación.

La RCS es efectiva en costo en unidades que queman gas. Se requiere menos catalizador, ya que la corriente del gas residual tiene niveles más bajos de NO_x , azufre y MP. Las turbinas de gas de ciclo combinado usan frecuentemente la tecnología de RCS para la reducción de NO_x . Un diseño típico de RCS de ciclo combinado coloca la cámara del reactor después del supercalentador dentro de una cavidad del sistema de recuperación de calor del generador de vapor. La temperatura del gas de combustión en ésta área está dentro del rango operativo de catalizadores de base de metal.

La RCS puede ser utilizada separadamente ó en combinación con otras tecnologías de control de combustión de NO_x tales como quemadores de bajo NO_x y requemado de gas natural. La RCS puede ser diseñada para proveer reducciones de NO_x durante todo el año o sólo durante la temporada de ozono.

Ventajas:

- Reducciones más altas de NO_x en comparación a los quemadores de bajo NO_x y la
- Reducción Selectiva No Catalítica (RSNC) es aplicable a fuentes con bajas concentraciones de NO_x
- Las reacciones ocurren dentro de un rango de temperatura más bajo y más amplio que en la RSNC
- No requiere modificaciones a la unidad de combustión

Desventajas:

- Costos de capitales y de operación significativamente más altos que los quemadores de bajo NO_x y la RSNC
- La reconversión de la RSC en calderas industriales es difícil y costosa
- Se requieren grandes cantidades de reactor y catalizador
- Puede requerir limpieza del equipo corriente abajo.
- Resulta en amoníaco en la corriente del gas residual, lo cual puede impactar la visibilidad de la pluma y la reventa o disposición de la ceniza.

ANEXO IV: SAP MAIN MODULES BRIEFING [11]

Project Systems (PS)

Managing Capital Projects, Linked to Plant Maintenance work orders for carrying out work and capturing costs of projects

Materials Management (MM)

Managing Suppliers and the procurement of materials. Linked to Project Systems and Plant Maintenance for managing materials required for each job or project. Also used for procurement of consumables and services.

Warehouse Management (WM)

Manages inventory, i.e. replenishment, picking and goods issues. Receives material reservations for stock.

Sales & Distribution (SD)

Manages Customer Enquiries and Quotations, and ultimately bills the customer. Links to other modules such as Project Systems to allow management of the delivery of the work.

Customer Service (CS)

Like Plant Maintenance, manages work orders to track the cost and progress of jobs. However, this is work performed on assets owned by others, who are billed for this service.

Cross Application (CA)

Cross Application Time Sheets (CATS), used by employees for booking time against projects, work or sales orders and cost centres.

Real Estate (RE)

Manages property, primarily used for Wayleaves and the payments to Landlords (access rights, etc).

Finance and Controlling (FI-CO)

General Ledger, Accounts Payable, Accounts Receivable & Asset Accounting. Statutory, Regulatory and Management Reporting by Company, Cost Centres and Profit Centres.

ANEXO V: PROCESS FLOW DIAGRAM

The following key shows the symbols used to describe the processes on SAP Plant Maintenance Businesses Processes section:

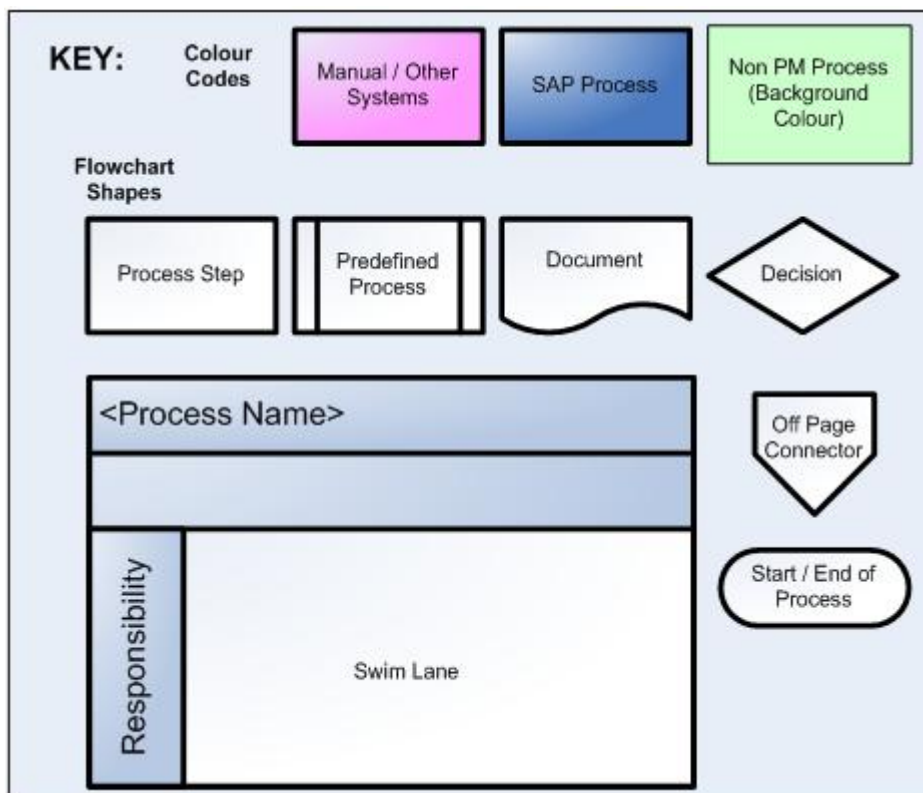


Figure VI Process Flow diagram legend [11]

ANEXO VI: REHEARSAL SIGNOFF

This document is sent to SAP Optimisation Team in order to validate the Data Load into the SAP QGL test mode prior to loaded into Live Mode.

Project Name/Ticket No.	WL197 - Ratcliffe ID Fan FL Data Load
Test System	QGL / Client (100)
Data Loaded By Date	Leon Heard 10.11.2011

Location	RAT
-----------------	------------

Remarks :

The following data objects were loaded into QGL (100):

Can you please check and verify that these files represent the data you submitted an you are happy to continue and have these files loaded to PGL:



PM_FL_WL197.xlsx



PM_FL_LTXT_WL197



PM_ClassData_WL197.xlsx

Please check the data and return a signed copy of this form to the GEN SAP PM OPTIMISATION TEAM mail box.

We confirm our acceptance of the data and that the data has been validated.

All item and value counts are correct, predicted field values are correct.

A selected set of sampling has been completed.

Name	Function	Date	Signature

The Outstanding issues are: (if any, else state 'None')

Severity *	Issue (What is the problem in business terms)	Action Required (what action is needed to correct this?)	By Whom

* Severity 1 Critical error
4 Low business impact

2 High business impact 3 Medium business impact
5 No impact, minor or cosmetic change

ANEXO VII: KKS

The KKS Power Plant Classification System is a standardised system for the classification of power stations. It serves during engineering, construction, operation and maintenance of power stations for identification and classification of the equipment. The system is known in short as KKS which is the abbreviation of the German term Kraftwerk-Kennzeichensystem. KKS will be replaced in future by Reference Designation System for Power Plants, RDS-PP. RDS-PP has almost same structure as KKS - 90 % of the code letters in the function key, other keys much less. The KKS has three different types of codes:

- Process-related code, for identification of systems and equipment according to their functions in the power station process according to their functions in mechanical, civil, electrical and control and instrumentation engineering.
- Point of installation code, for identification of points of installation of electrical, control and instrumentation devices in installation units (e.g. in cabinets, panels, consoles).
- Location code, for identification of locations of equipment and structures.

These three types of code use the same identification scheme, which is subdivided into four breakdown levels. Originally the titles of the breakdown levels were based on the process-related code. With the KKS system the main systems of a power station are identified by using a function key.

KKS Suggested Object Type Assignment		
Level 7 or 8 of KKS Code	Description	Object Type
-A	Assemblies and subassemblies	
AA	Valve	EUK105
AB	Isolating Elements	EUK105
AC	Heat Exchanger	EUK121
AE	Turning, Driving, Lifting & Slewing gear	EUK103
AF	Continuous conveyors, feeders (escalators)	EUK123
AG	Generator	EUK112
AH	HVAC units	EUK121
AJ	Size reduction equipment, only as part of process	
AK	Compacting and packaging equipment, only as part of process	
AM	Mixers, Agitators	
AN	Compressor Units, Fans	EUK116
AP	Pump	EUK104
AS	Adjusting & Tensioning Eqpt	
AT	Cleaning, Drying, Filtering & Separation	EUK113
AU	Braking, Gearbox, Non-Elect Converters	EUK102
AV	Combustion Equipment	EUK125
AX	Test and Monitoring Equipt	EUK109
-B	Transducers for non-electrical to electrical variables and vice-versa	
BB	Storage Equipment (Tanks)	EUK122

Table I Extract of the KKS Object type table used for the level code 8 of Ratcliffe Functional Location Structure

Function Key	Main Groups
A	Grid and distribution systems
B	Power transmission and auxiliary power supply
C	Instrumentation and control equipment
E	Conventional fuel supply and residues disposal
F	Handling of nuclear equipment
G	Water supply and disposal
H	Conventional heat generation
J	Nuclear heat generation
K	Reactor auxiliary systems
L	Steam, water, gas cycles
M	Main machine sets
N	Process energy supply for external users
P	Cooling water system
Q	Auxiliary systems
R	Gas generation and treatment
S	Ancillary systems
U	Structures
W	Renewable energy plants
X	Heavy machinery (not main machine sets)
Z	Workshop and office equipment

Table II KKS main system coding

ANEXO VIII: SCR PRODUCING OF SAP CODES AND DESCRIPTIONS FROM RAW SPREADSHEET DATA

This extract from excel shows the way to work with raw data sent by the main contractors of the SCR project.

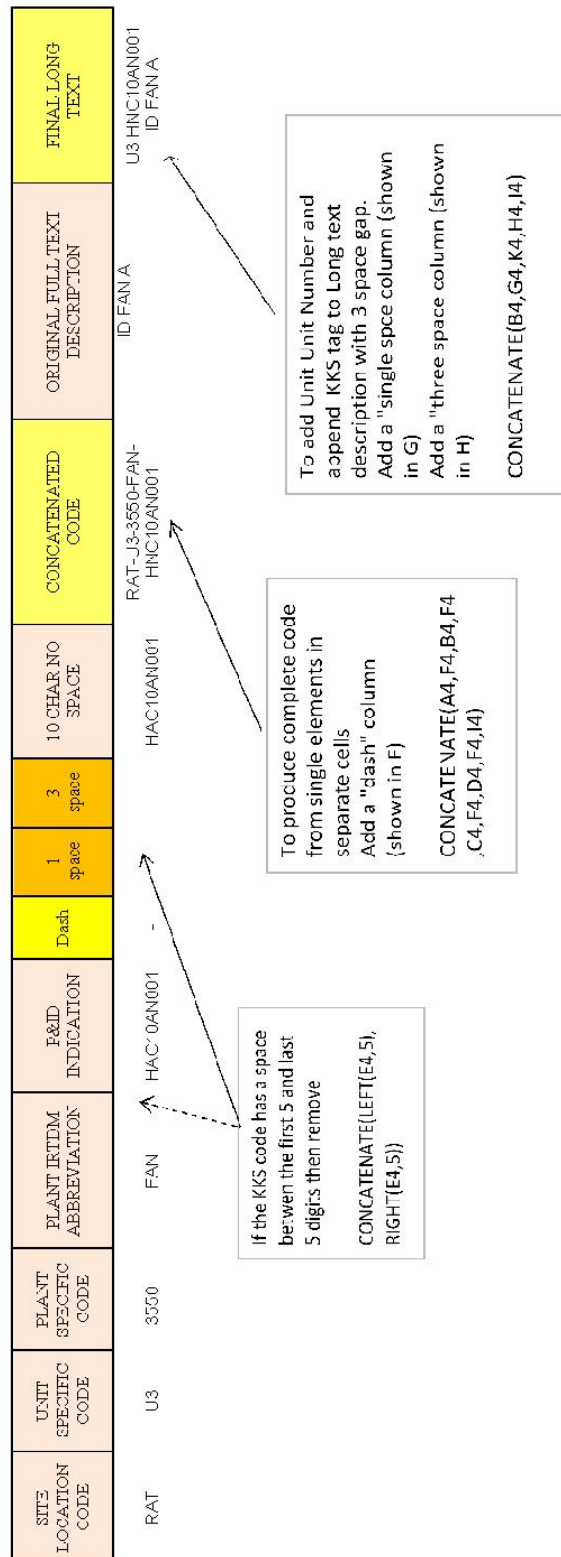


Figure VII SCR producing of SAP codes and descriptions from raw spreadsheet data

ANEXO IX: OBJECT TYPE ASSIGNMENT PRA CODES & TECHNICAL OBJECT TYPES

The following PRA codes for the level 7 on SAP structures were used to create new functional locations for the new SCR plant.

Level 7 of PRA Code	Description	Object Type	New Object Description
ACH	Acoustic Hood		
ACT	Electrical Actuator	EUK101	Actuator
AGT	Agitator		
AHN	Acoustic Horn		
AHY	Hydraulic Actuator	EUK101	Actuator
AIR	Compressed Air Dryer	EUK122	Vessel
ALA	Alarm		
ALT	Alternator	EUK112	Generator
AMP	Amplifier		
ANA	Analyser	EUK109	Instrumentation
APC	Gland Sealing Control Valve	EUK105	Valve
APN	Pneumatic Actuator	EUK101	Actuator
ARR	Grit Arresters		
AUX	Auxiliary		
AVR	Auto Voltage Regulator		
BAR	Barriers and Fences	EUK115	Structure
BAT	Battery	EUK119	Batteries
BBR	Busbar		
BGR	Brushgear		
BHZ	Buchholz		
BKR	Breaker	EUK114	Circuit Breaker
BLD	Blading		
BLR	Boiler	EUK115	Structure
BLT	Belt	EUK123	Conveyor
BNK	Bunker	EUK122	Vessel
BRD	Board	EUK108	Switch Board
BRG	Bearing		
BRK	Brake		
BRN	Burner		
CAS	Casing		
CAT	Catalyst		
CBL	Cable		
CEN	Centrifuge		
CFR	Classifier		
CHM	Chimney	EUK115	Structure
CHU	Chute	EUK115	Structure
CLF	Clarifier		
CLR	Cooler	EUK121	Heat Exchanger
CLU	Clutch		
CMP	Compressor	EUK111	Compressor
CMT	Computer		

CND	Condenser		
CNV	Conveyor	EUK123	Conveyor
COM	Communications		
CON	Controller		
CRN	Crane	EUK117	Crane
CRU	Crusher		
CVR	Cover		
DCT	Duct	EUK115	Structure
DDR	Drum Door		
DET	Detection	EUK109	Instrumentation
DMP	Damper	EUK124	Damper
DOR	Door	EUK115	Structure
DRA	Drainage		
DRM	Drum	EUK122	Vessel
DRV	Drive Coupling	EUK102	Gear Box
DRY	Humidryer		
DSC	Disc	EUK110	Pipework
EAR	Earthing		
ECO	Economiser	EUK115	Structure
ELM	Element	EUK110	Pipework
ENG	Engine	EUK120	Combustion Engine
EQU	Equipment		
ESB	Emergency Stop Button	EUK107	Switch/Isolator
EXC	Excitation	EUK112	Generator
FAN	Fan	EUK116	Fan
FBD	Fuseboards		
FDR	Feeder	EUK123	Conveyor
FIR	Firing System		
FLO	Flow	EUK109	Instrumentation
FLT	Filter	EUK113	Filter
FLV	Flash Vessel	EUK122	Vessel
FUR	Furnace	EUK115	Structure
GDR	Guard Rail	EUK115	Structure
GEN	Generator	EUK112	Generator
GLD	Gland		
GOV	Governor Panel		
GRB	Gearbox	EUK102	Gear Box
GRD	Grid	EUK115	Structure
GSG	Graduated Straightening Grid	EUK115	Structure
HCY	Hydrocyclone		
HDR	Headers And Manifolds	EUK110	Pipework
HFO	Heavy Fuel Oil		
HOP	Hopper	EUK122	Vessel
HMI	Human Machine Interface		
HTR	Heater	EUK125	Heater & Boiler
IGN	Ignition		
IND	Indicator	EUK109	Instrumentation
INS	Instrument	EUK109	Instrumentation
INV	Inverter		
JBX	Junction Box		

JNT	Joint		
LAG	Lagging		
LEA	Acoustic Monitor	EUK109	Instrumentation
LFT	Lift	EUK129	Lift
LIS	Local Isolating Switch	EUK107	Switch/Isolator
LNA	Low NO _x Analyser	EUK109	Instrumentation
LTG	Lighting	EUK130	Lighting
LUB	Lubricating		
LVL	Level Gauge	EUK109	Instrumentation
LVS	Level Switch	EUK107	Switch/Isolator
MAG	Magnetic Separator	EUK123	Conveyor
MTR	Motor	EUK103	Motor
MXR	Mixer (Dust)		
NET	Networking		
NOZ	Nozzle	EUK110	Pipework
NRF	Non Return Flap	EUK110	Pipework
OBS	Oil Burner		
ORI	Orifice	EUK110	Pipework
OTH	Other		
PGS	Pressure Gauge	EUK109	Instrumentation
PLC	P L C		
PMP	Pump	EUK104	Pump
PNL	Control Panel		
PRE	Precipitator		
PRO	Protection	EUK109	Instrumentation
PSW	Pressure Switch	EUK107	Switch/Isolator
PUL	Pulverisor		
PWK	Pipework	EUK110	Pipework
RCL	Reclaimer		
RCT	Rectifier		
RCV	Receiver	EUK111	Compressor
REA	Reactor	EUK115	Structure
REC	Recorder	EUK109	Instrumentation
REG	Regulator		
REL	Relay		
RES	Resister	EUK109	Instrumentation
RIF	Riffle Boxes	EUK110	Pipework
RJB	Reject Box		
RLT	Railtrack		
ROL	Roller	EUK123	Conveyor
RPR	Rapping		
RSR	Reservoir	EUK122	Vessel
RTD	Resistive Thermal Device	EUK109	Instrumentation
RTR	Rotor		
SBL	Soot Blower		
SCN	Screen	EUK115	Structure
SCP	Scraper		
SEN	Sensor	EUK109	Instrumentation
SEP	Separator	EUK122	Vessel
SHF	Shaft		
SHW	Shower		

SIL	Silencer	EUK110	Pipework
SLC	Sluiceway		
SMP	Sampler	EUK109	Instrumentation
SOL	Solenoid	EUK109	Instrumentation
SPL	Supply		
SRN	Strainer	EUK113	Filter
STC	Structure	EUK115	Structure
STN	Station		
STR	Stator		
SWG	Switchgear	EUK108	Switch Board
SWR	Switchrooms	EUK115	Structure
SWT	Switch / Isolator	EUK107	Switch/Isolator
SWX	Auxilliary Switch	EUK107	Switch/Isolator
SYN	Synchronising		
SYS	System		
TCH	Tap Changer	EUK106	Transformer
TCO	Thermocouple	EUK109	Instrumentation
TDS	Top Dead Space		
TEL	Telephone	EUK109	Instrumentation
TES	Test Equipment	EUK109	Instrumentation
TFR	Transformer	EUK106	Transformer
TNK	Tank	EUK122	Vessel
TPG	Tapping Points		
TRA	Transport	EUK126	Mobile Plant
TST	Thermostat	EUK109	Instrumentation
TUB	Tube	EUK110	Pipework
TUR	Turbine	EUK118	Steam Turbine
TXS	Transmittor	EUK109	Instrumentation
VAC	Vacuum		
VIB	Vibration	EUK109	Instrumentation
VLV	Valve	EUK105	Valve
VSL	Vessel	EUK122	Vessel
WBX	Windbox		
WEI	Weigher	EUK109	Instrumentation
WRK	Workstation		
WWH	Wheelwash		

Table III PRA Level 7 code and Technical Object Types for implementation of F.L.'s on SAP

ANEXO X: CLASSIFICATION ATTRIBUTES

Classification Description	Classification Name	Characteristic Value	Characteristic Description	Value
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	1	1 - Negligable
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	2	2 - Minor
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	3	3 - Moderate
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	4	4 - Major
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	5	5 - Severe
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	6	6 - Catastrophic
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	1	1 - Negligable
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	2	2 - Minor
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	3	3 - Moderate
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	4	4 - Major
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	5	5 - Severe
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	6	6 - Catastrophic
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	1	1 - Negligable
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	2	2 - Minor
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	3	3 - Moderate
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	4	4 - Major
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	5	5 - Severe
Sfty/Env/Op Scores	Impact	U_F_IMPACT_SCORES	6	6 - Catastrophic
Compliance		U_F_COMPLIANCE	PEM002	PEM002 Mgmt of Gas Pipelines
Compliance		U_F_COMPLIANCE	PEM003	PEM003 Compliance with PSSR
Compliance		U_F_COMPLIANCE	PEM004	PEM004 Civils-large Reservoirs
Compliance		U_F_COMPLIANCE	PEM101	PEM101 Outage Co-Ord Document
Compliance		U_F_COMPLIANCE	PEM106	PEM106 Access Structures
Compliance		U_F_COMPLIANCE	PEM108	PEM108 On-Load Leak Sealing
Compliance		U_F_COMPLIANCE	PEM109	PEM109 Plant Simulations
Compliance		U_F_COMPLIANCE	PEM112	PEM112 Plant Modifications
Compliance		U_F_COMPLIANCE	PEM200	PEM200 HT Blr headers
Compliance		U_F_COMPLIANCE	PEM201	PEM201 Pressure Vessels
Compliance		U_F_COMPLIANCE	PEM202	PEM202 Chests, casting & BSV
Compliance		U_F_COMPLIANCE	PEM203	PEM203 LT Pipework
Compliance		U_F_COMPLIANCE	PEM204	PEM204 HT Pipework
Compliance		U_F_COMPLIANCE	PEM205	PEM205 Stm & water Chemistry
Compliance		U_F_COMPLIANCE	PEM206	PEM206 Large Fan Impellers
Compliance		U_F_COMPLIANCE	PEM207	PEM207 ST rotors & blading
Compliance		U_F_COMPLIANCE	PEM208	PEM208 Vibration Monitoring
Compliance		U_F_COMPLIANCE	PEM209	PEM209 Excitation
Compliance		U_F_COMPLIANCE	PEM210	PEM210 Power Transformers
Compliance		U_F_COMPLIANCE	PEM211	PEM211 Main Earthing Systems
Compliance		U_F_COMPLIANCE	PEM212	PEM212 Switchgear
Compliance		U_F_COMPLIANCE	PEM213	PEM213 Overhead Lines

Compliance	U_F_COMPLIANCE	PEM215	PEM215 Electrical Generators
Compliance	U_F_COMPLIANCE	PEM216	PEM216 Cable Management
Compliance	U_F_COMPLIANCE	PEM217	PEM217 UPS and Battery Systems
Compliance	U_F_COMPLIANCE	PEM218	PEM218 Civil Structures
Compliance	U_F_COMPLIANCE	PEM219	PEM219 Cooling Towers
Compliance	U_F_COMPLIANCE	PEM220	PEM220 Chimneys and Flues
Compliance	U_F_COMPLIANCE	PEM221	PEM221 Oil Tanks and Bunds
Compliance	U_F_COMPLIANCE	PEM222	PEM222 Protection Systems
Compliance	U_F_COMPLIANCE	PEM223	PEM223 Safety of PF systems
Compliance	U_F_COMPLIANCE	PEM224	PEM224 Gas Turbines
Compliance	U_F_COMPLIANCE	PEM225	PEM225 HT fasteners
Compliance	U_F_COMPLIANCE	SHE015	SHE015 Confined Spaces
Compliance	U_F_COMPLIANCE	SHE019	SHE019 Noise Control
Compliance	U_F_COMPLIANCE	SHE020	SHE020 DSEAR
Compliance	U_F_COMPLIANCE	SHE027	SHE027 Emergency & BC Plan
DSEAR Information	U_F_DSEAR	ZONE 0	ZONE 0 (GASES/VAPOUR)
DSEAR Information	U_F_DSEAR	ZONE 1	ZONE 1 (GASES/VAPOUR)
DSEAR Information	U_F_DSEAR	ZONE 2	ZONE 2 (GASES/VAPOUR)
DSEAR Information	U_F_DSEAR	ZONE 20	ZONE 20 (DUSTS)
DSEAR Information	U_F_DSEAR	ZONE 21	ZONE 21 (DUSTS)
DSEAR Information	U_F_DSEAR	ZONE 22	ZONE 22 (DUSTS)
DSEAR Information	U_F_DSEAR	IIA - METHANE	IIA - METHANE
DSEAR Information	U_F_DSEAR	IIA - PROPANE	IIA - PROPANE
DSEAR Information	U_F_DSEAR	IIA - PETROLEUM	IIA - PETROLEUM
DSEAR Information	U_F_DSEAR	IIA - AMMONIA	IIA - AMMONIA
DSEAR Information	U_F_DSEAR	IIB - ETHYLENE	IIB - ETHYLENE
DSEAR Information	U_F_DSEAR	IIC - HYDROGEN	IIC - HYDROGEN
DSEAR Information	U_F_DSEAR	T1	T1 - 450C
DSEAR Information	U_F_DSEAR	T2	T2 - 300C
DSEAR Information	U_F_DSEAR	T3	T3 - 200C
DSEAR Information	U_F_DSEAR	T4	T4 - 135C
DSEAR Information	U_F_DSEAR	T5	T5 - 100C
DSEAR Information	U_F_DSEAR	T6	T6 - 85C
DSEAR Information	U_F_DSEAR	-	- General Requirements
DSEAR Information	U_F_DSEAR	EX IA & IB	Ex ia & ib - Intrinsic Safety
DSEAR Information	U_F_DSEAR	EX E	Ex e - Increased Safety
DSEAR Information	U_F_DSEAR	EX D	Ex d - Flameproof
DSEAR Information	U_F_DSEAR	EX P	Ex p - Pressurisation
DSEAR Information	U_F_DSEAR	EX Q	Ex q - Powder Filled
DSEAR Information	U_F_DSEAR	EX MA & MB	Ex ma & mb - Encapsulation
DSEAR Information	U_F_DSEAR	EX O	Ex o - Oil Immersion
DSEAR Information	U_F_DSEAR	EX N	Ex n - Non-incendive
Actuator	U_F_ACT	ELEC	ELECTRIC
Actuator	U_F_ACT	HYDR	HYDRAULIC
Actuator	U_F_ACT	PNEU	PNEUMATIC
Compressor	U_F_COMP	AXIAL	AXIAL
Compressor	U_F_COMP	BLOWERS/FANS	BLOWERS/FANS
Compressor	U_F_COMP	CENTRIFUGAL	CENTRIFUGAL
Compressor	U_F_COMP	RECIP	RECIPROCATING
Compressor	U_F_COMP	SCREW	SCREW
Compressor	U_F_COMP	TURB	TURBINE

Control	U_F_CTRL	AVR	AUTO VOLTAGE REGULATORS
Control	U_F_CTRL	SRC	SPEED REGULATING CONTROL
Control	U_F_CTRL	VSD	VARIABLE SPEED DRIVE
DC System	U_F_DCSYST	BATT	BATTERIES
DC System	U_F_DCSYST	CHGR	CHARGERS
DC System	U_F_DCSYST	UPS	UPS
Expansion Joint	U_F_EXPJT	JNT	Joint
Fan	U_F_FAN	ID	INDUCED
Fan	U_F_FAN	FD	FORCED
Fan	U_F_FAN	PA	PA
Fan	U_F_FAN	CLG	COOLING
Fan	U_F_FAN	AXIAL	AXIAL
Fan	U_F_FAN	CENTRIFUGAL	CENTRIFUGAL
Filter	U_F_FLTR	AIR	AIR
Filter	U_F_FLTR	ELEC	ELECTRONIC
Filter	U_F_FLTR	ELMT	ELEMENT
Filter	U_F_FLTR	FUEL	FUEL
Filter	U_F_FLTR	LIGHT	LIGHT
Filter	U_F_FLTR	OIL	OIL
Filter	U_F_FLTR	WATER	WATER
Fire Detector	U_F_FIRE	DET	Detector
Gear box	U_F_GBOX	BEVEL	BEVEL
Gear box	U_F_GBOX	GIRTHGEAR	GIRTHGEAR
Gear box	U_F_GBOX	PINION	PINION
Gear box	U_F_GBOX	SPUR	SPUR
Gear box	U_F_GBOX	WRM	WORM
Gear box	U_F_GBOX	WRM/WHL	WORM/WHEEL
Generator	U_F_GEN	AIRCLD	AIR COOLED
Generator	U_F_GEN	H2CLD	HYROGEN COOLED
Instrumentation	U_F_INST	ANLSER	ANALYSERS
Instrumentation	U_F_INST	CTRL	CONTROL
Instrumentation	U_F_INST	ENV	ENVIRONMENTAL
Instrumentation	U_F_INST	EXP	EXPANSION
Instrumentation	U_F_INST	FLOW	FLOW
Instrumentation	U_F_INST	LVL	LEVEL
Instrumentation	U_F_INST	PRES	PRESSURE
Instrumentation	U_F_INST	TEMP	TEMPERATURE
Instrumentation	U_F_INST	VIB	VIBRATION
Mill	U_F_MILL	BALL	BALL
Mill	U_F_MILL	RBALL	RING AND BALL
Mill	U_F_MILL	RLLR	ROLLER
Motor	U_F_MTR	AC	AC
Motor	U_F_MTR	COMMUTATOR (DC)	COMMUTATOR (DC)
Motor	U_F_MTR	SYNCHRONOUS	SYNCHRONOUS
Motor	U_F_MTR	ASYNCHRONOUS	ASYNCHRONOUS
Pipework media	U_F_PWK	STM	STEAM
Pipework media	U_F_PWK	CW	COOLING WATER
Pipework media	U_F_PWK	FW	FEED WATER
Pipework media	U_F_PWK	SLUDGE	SLUDGE
Pipework media	U_F_PWK	EFF	EFFLUENT

Pipework media	U_F_PWK	CON	CONDENSTATE
Pipework media	U_F_PWK	DEMIN	DEMIN
Pipework media	U_F_PWK	GAS	GAS
Pipework media	U_F_PWK	GRYO	CRYOGENIC
Protection	U_F_PROT	ELECSYST	ELECTRICAL SYSTEMS
Pump	U_F_PMP	MULTISTG	MULTI STAGE
Pump	U_F_PMP	VERT	VERTICAL
Pump	U_F_PMP	SINGSTG	SINGLE STAGE
Pump	U_F_PMP	ENDSUCT	END SUCTION PUMP
Pump	U_F_PMP	SPEC	SPECIALITY
Pump	U_F_PMP	SUB	SUBMERSIBLE
Pump	U_F_PMP	VAC	VACUUM
Pump	U_F_PMP	CENTRIFUGAL	CENTRIFUGAL
Pump	U_F_PMP	RECIP	RECIPROCATING
Sootblower	U_F_SBL	FIXED	FIXED
Sootblower	U_F_SBL	LANCE	LANCE
Switchgear	U_F_SWGR	EHV	EHV
Switchgear	U_F_SWGR	HV	HV
Switchgear	U_F_SWGR	LV	LV
Transformer	U_F_TFR	EARTHING	EARTHING
Transformer	U_F_TFR	INST	INSTRUMENT
Transformer	U_F_TFR	PWR	POWER
Transformer	U_F_TFR	RECTFR	RECTIFIER
Transformer	U_F_TFR	DRY	DRY
Transformer	U_F_TFR	OIL IMMERSSED	OIL IMMERSSED
Valve	U_F_VLV	3WAY	3 WAY
Valve	U_F_VLV	AXIALFLOW	AXIAL FLOW (Flow Control)
Valve	U_F_VLV	BALL	BALL (or Float)
Valve	U_F_VLV	BTRFLY	BUTTERFLY
Valve	U_F_VLV	CHECK	CHECK
Valve	U_F_VLV	DIAPH	DIAPHRAGM
Valve	U_F_VLV	DISC	DISC (Parallel Slide)
Valve	U_F_VLV	EXTERNALSLEEVE	EXTERNAL SLEEVE (Port)
Valve	U_F_VLV	FLAPPER	FLAPPER (Non Return Valve)
Valve	U_F_VLV	GATE	GATE (or Wedge)
Valve	U_F_VLV	GLOBE	GLOBE
Valve	U_F_VLV	MULTIPLEORIF	MULTIPLE ORIFICE
Valve	U_F_VLV	NEEDLE	NEEDLE
Valve	U_F_VLV	PINCH	PINCH
Valve	U_F_VLV	PLUG	PLUG
Valve	U_F_VLV	PLUGANDCAGE	PLUG AND CAGE
Valve	U_F_VLV	RELIEF	RELIEF
Valve	U_F_VLV	SOL	SOLENOID
Valve	U_F_VLV	SPOOL	SPOOL
			BALL
Switchgear	U_F_SWGR	LV	LV
Switchgear	U_F_SWGR	LV	LV
Instrumentation	U_F_INST	PRES	PRESSURE
Instrumentation	U_F_INST	CTRL	CONTROL
Switchgear	U_F_SWGR	LV	LV
Switchgear	U_F_SWGR	LV	LV

Instrumentation	U_F_INST	TEMP	TEMPERATURE
Instrumentation	U_F_INST	TEMP	TEMPERATURE
Instrumentation	U_F_INST	TEMP	TEMPERATURE
Instrumentation	U_F_INST	TEMP	TEMPERATURE
Instrumentation	U_F_INST	CTRL	CONTROL
Switchgear	U_F_SWGR	LV	LV
Instrumentation	U_F_INST	TEMP	TEMPERATURE
Switchgear	U_F_SWGR	LV	LV
Switchgear	U_F_SWGR	LV	LV
Switchgear	U_F_SWGR	LV	LV

Table IV Classification attributes to create a Functional Location on SAP

ANEXO XI: ID FAN COMPONENTS DESCRIPTIONS

- **ID FAN MOTOR**

The fan is driven by a 4300KW, 6.3KV motor with a maximum speed of 745 rpm governed by a VSD system. The motor is equipped with an air cooler and has oil bath lubricated bearings supplied from a common sump. Electric heaters are provided to maintain the sump oil temperature above a preset value.

- **ID FAN BRAKES**

The system is equipped with two brakes fitted to the fan. One is for normal run-down operation and the other for maintenance.

The *run-down brake* is an electrically operated calliper with friction pads bearing on a brake disc attached to the fan drive shaft. This brake is applied or released automatically during the fan start and shutdown sequences. Brake status (released/applied) is indicated by micro switches on the calliper.

The *maintenance brake* is a handwheel actuated calliper brake that also bears against a brake disc attached to the fan drive shaft. This brake is applied to stop rotor movement (windmilling) during maintenance activities.

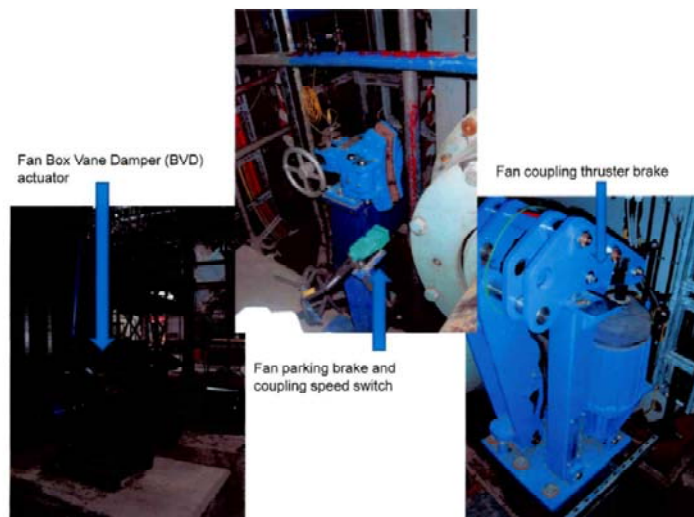


Figure VIII ID Fan brakes and Box Vane Damper actuator

- **ID FAN LUBRICATION OIL SYSTEM**

Each fan is provided with an oil supply “power pack”, for bearing lubrication. This comprises duty/standby lubricating oil pumps, duplex oil coolers (air/oil), duplex oil filter, pressure regulation and an oil tank.

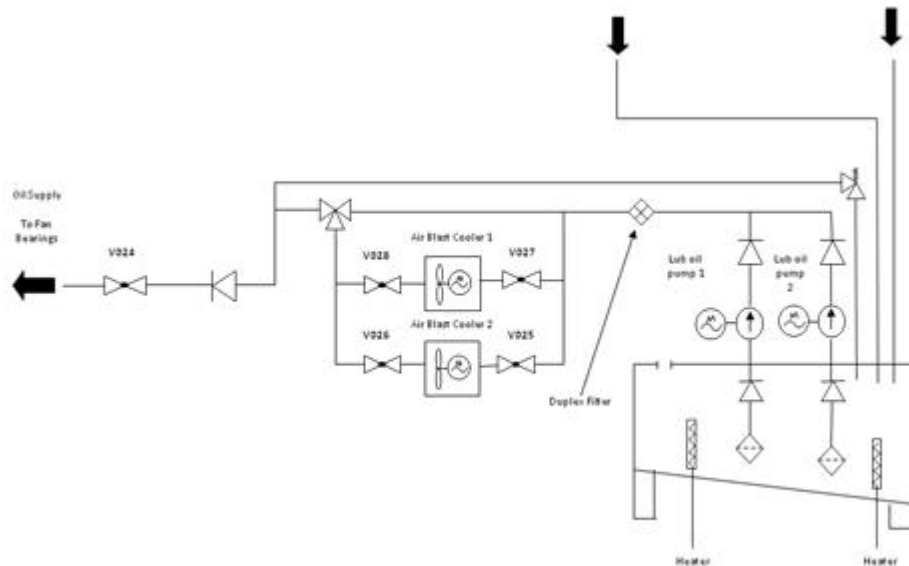


Figure IX: Lubrication Oil Skid diagram



Figure X: ID Fan A Lubrication Oil Skid

- **VARIABLE SPEED DRIVE (VSD)**

As it has set before each ID Fan is a 50% duty axial flow machine directly driven at a Variable Speed Drive (VSD) by an electric motor. The VSD system is more efficient than the pitch control one however requires much more equipment at higher cost. By regulating the speed of the motor the flow, pressure and power of the fans change. To do that it is necessary several electrical and electronic devices.

The VSD for the ID Fans has the following characteristics:

Voltage	6.6kV
Location	Precipitators Switch room upper level
Dimensions	10.5 m in length
Weight	13te
Cooling circuits	(x2) primary to cool VSD & secondary to cool primary

Table V: VSD Table characteristics

This VSD is cooled by two systems to ensure proper removal of heat from the drives without compromising the integrity of the enclosure. A water to water heat exchanger (plate type) is provided in the VSD control unit. The heat in the primary side fluid is removed by the secondary cooling water in the plate heat exchanger. The cooling water system is designed to cater to 4 boiler unit ID Fan VSDs cooling water requirement.

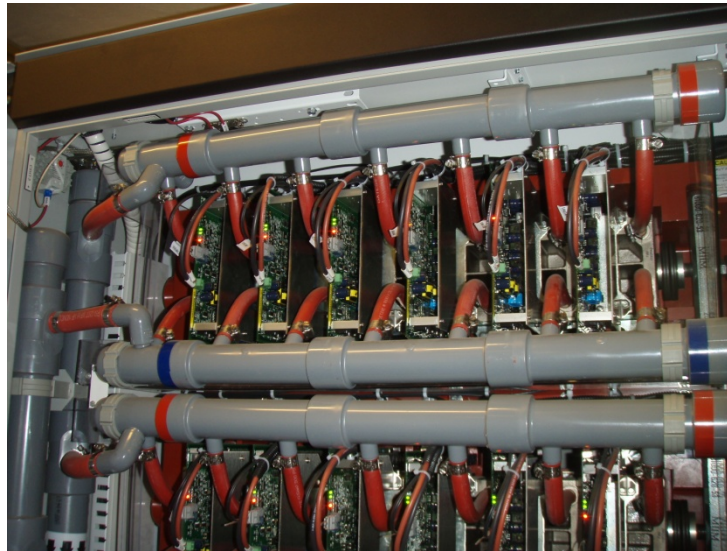


Figure XI: VSD electronics panel

- **VSD PRIMARY COOLING SYSTEM**

The VSD primary cooling system is a pumped closed-circuit comprising of two pumps, one in service the other standby, a reservoir tank and a heat exchanger (See Figure XIV: VSD Primary Cooling System Pumps). Instrumentation is provided to monitor coolant flow,

temperature, pressure and conductivity. The coolant flows through the choke & converters removing heat. The system pressure is still to be determined but it will be a fairly low pressure as it's only a circulating system. The primary coolant is a mixture of ethylene glycol (Anti-freeze) & de-ionised water. This mixture is conditioned by two in-line filters and a cartridge deioniser. The flow through is restricted by an orifice to 0.3l/s and the circuit has isolating valves to allow for cleaning and changing of the cartridge. The filters are 500-micron fine mesh & can be rinsed with clean water. The cartridge is an exchange unit. The mixture is monitored with a conductivity meter and temperature sensors.

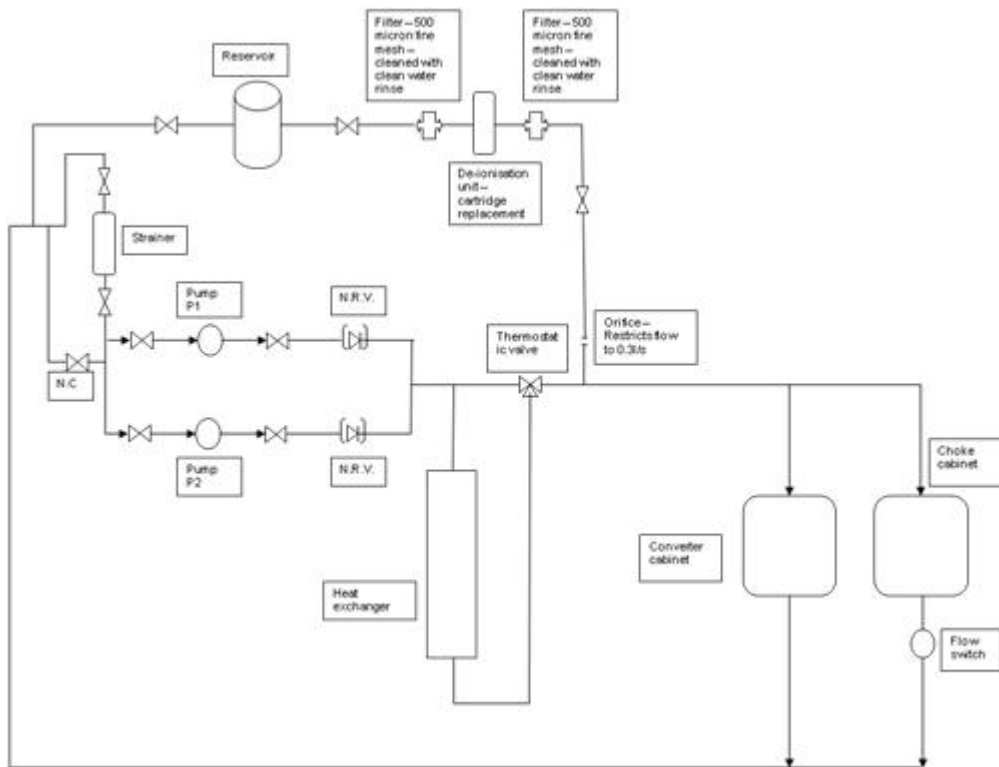


Figure XII: VSD Primary Cooling system drawing



Figure XIV: VSD Primary Cooling System Pumps



Figure XIII Plate Heat Exchanger

• ID FAN VSD SECONDARY COOLING WATER SYSTEM

The system is designed as a closed loop, taking supply from dual redundant secondary water return line headers, (designated C&D respectively) via a culvert. The cooling water is taken from one high pressure manifold in the auxiliary pumphouse with an emergency supply from a low pressure manifold. Is taken from the HP manifold is it is directly off the cooling water pumps discharge legs (supply to the condensers) and of a decent positive pressure and because it is the coolest cooling water temperature (the low pressure manifold is off the return from the condensers)

The secondary water system comprises of (see basis of the design on:

- Pumps suction strainers (coarse filter) – two off – one self clean strainer and one manual duplex strainer.
- 3 x 100% cooling water pumps (2 x working + 1 x standby) which supply two manifolds – common for four boiler units (i.e. 8 off VSDs)
- 2 x 100% supply pipe work (common for 4 units). One supplying 'A' VSDs and the other supplying the 'B'.
- Pump discharge filters (fine filter) – two off – one self clean filter and one manual duplex filter.
- Suction, discharge and return piping with required valves for unit isolation, individual heat exchanger isolation, draining and venting.
- Flow restriction orifices (one per VSD heat exchanger) for flow balancing.
- 2 x 100% return pipe work (common for four units).

In order to minimise biological growth, Sodium hypochlorite (NaOCl) is dosed at the cooling water supply common header. After the chemical treatment the water is filtered to limit the size of the particles entering the heat exchangers. There are two sets of filters on the system. The first set is after the dosing skid injection point but before the booster pumps suction manifold. The second set of filters is downstream of the booster pumps but before the two 100% manifolds that supply the units. Each set of filters compromise of a self cleaning 100% duty simplex strainer with integral back flush designed to be in service continually (except when maintenance is required) and a manual cleaning duplex standby strainer.

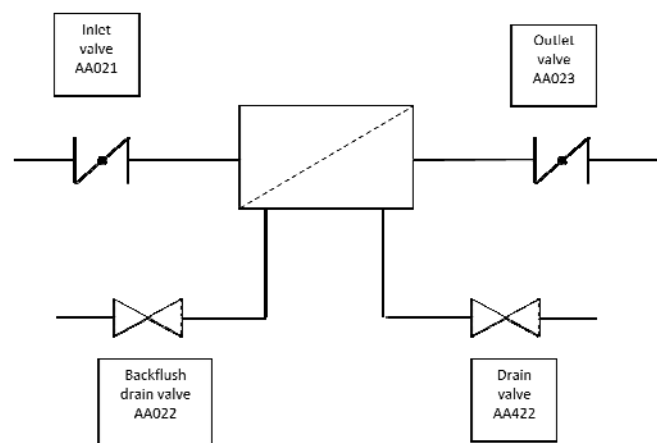


Figure XVI Auto Filter diagram

The dual manifolds can also be configured to allow sections to be taken out of service for maintenance/repair whilst still supplying cooling water to the VSDs in service.

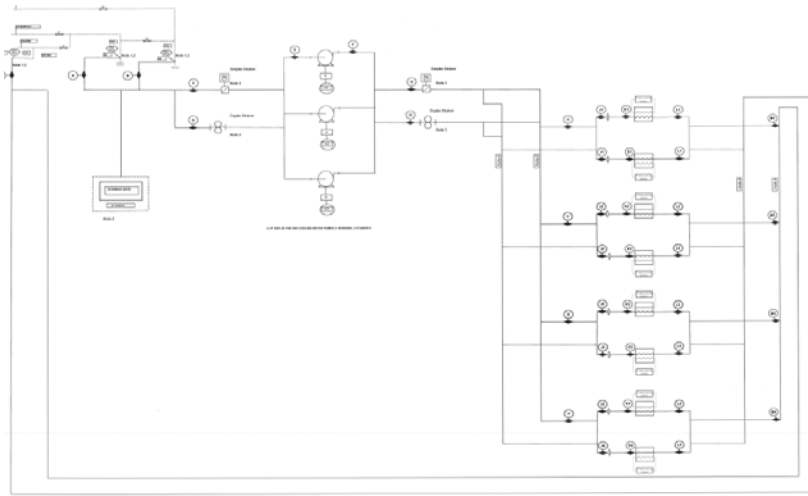


Figure XVII VSD Secondary Cooling Water system diagram

ANEXO XII: AMMONIA COMMON PLANT DIFFERENT PROCESSES DESCRIPTION

• AMMONIA VENT & SCRUBBER SYSTEM

The ammonia offloading, storage, forwarding and vaporisation system is equipped with pressure relief valves, hydrostatic relief valves and vents that relieve any excess pressures in the various systems. Excepting the storage tanks and vapouriser/ accumulator relief vents, these valves and vents discharge to a common vent header which discharges to a knock-out pot ahead of an ammonia scrubbing system. This pot allows ammonia liquid from the header to flash to vapour en-route to the scrubber.

The ammonia scrubbing system is a two-stage gas/liquid contactor which absorbs any ammonia gas/vapour which may be vented from the ammonia storage and evaporation system during transfer operations.

The system comprises a liquid spray venturi eductor and packed scrubbing tower, both mounted on a common base/ sump. This sump contains a neutralising solution of dilute sulphuric acid. Neutralising solution is drawn from the sump by tank mounted centrifugal pumps (Duty/Standby) and recirculated through the venturi and scrubbing tower from where it gravitates back to the sump

• AMMONIA MITIGATION WATER SPRAY SYSTEM

The Ammonia Mitigation Water Spray System is intended to dilute the ammonia gas concentration and minimises the spread of ammonia gas as a result of any ammonia leakage. The system covers the tanker off-loading bay, ammonia unloading skids, ammonia storage tanks including forwarding pumps, vaporisers, accumulators and interconnecting pipe work between these equipment items. It is activated automatically or manually if an ammonia leak is detected. The ammonia tanker off-loading bay is additionally provided with an Ammonia Tanker Fire Exposure Cooling System.

The contained area Ammonia Mitigation Water Spray System provides a water spray discharge over the plan areas of the Unloading Skids, Ammonia Storage Tanks (including Forwarding Pumps), Vaporisers, Accumulators and interconnecting pipe work between these equipment items.

• AMMONIA OFFLOADING & STORAGE

Liquid anhydrous ammonia is delivered in bulk to the site by road tanker. Two tanker discharge points (A/B) are provided, each of which can discharge the tankers' contents to either of the bulk liquid storage tanks.

For the delivery system the structure has differentiated between the ammonia, nitrogen and air instrument lines. Therefore two identical structures have been created for the Offloading A and B systems. Thus, the main items of the this systems are:

Road Tanker Offloading – The road tanker is equipped with a liquid ammonia unloading arm that terminates in a snap-tite coupling at the unloading station. The liquid discharge is routed to the storage tanks' unloading manifold. A second flexible vapour return hose connects the tanker top space to a line connected to the freeboard space in the storage tank. An additional plant air connection is made to the tankers' air brake system which locks the brakes during the transfer process. Transfer of the liquid ammonia from the tanker to the selected storage tank is effected by the tanker mounted pump. Relief valves on the liquid transfer lines are connected via a header to the ammonia vent system.

Offloading Area Sump – The ammonia tanker offloading area is graded to drain to a sump; the level in which is monitored by high and low level switches. The sump is discharged as appropriate by a rainwater pump and ammonia mitigation system water transfer pump. Both pumps take suction from the sump via foot mounted valves and strainers, connected by flexible hoses, and discharge to the Ammonia Plant Contained Area Sump.

Ammonia Tank Manifold – The two tanker offloading points are connected to a manifold that allows ammonia liquid to be transferred to a selected bulk tank and vapour to be discharged from a selected tank. Each of the liquid and vapour lines incorporate a "double block-and bleed" (DBB) valve arrangement that ensures complete (safe) isolation between the up and downstream pipelines.

Bulk Storage Tanks - Two bulk liquid ammonia storage tanks, each of 100 tonne capacity, are provided to store ammonia ahead of the vaporisation system. The tanks are horizontal cylindrical pressure vessels that are both mounted inside a common containment. The ammonia tanks are each equipped with dual liquid level transmitters, a float type (High) level switch and a visual level indicator. The pressure inside the storage tank is monitored by dual pressure transmitters and a local pressure indicator. A single temperature indicator is provided to give local indication the ammonia liquid temperature. Dual mechanical pressure relief valves (24 Bar) are provided to vent any overpressure to an ammonia relief header. This header leads to a knock-out pot from which the ammonia vapour is vented to the atmosphere via a stack above the storage tank canopy roof.

Contained Area Drainage – Because the contained area has no tie-in with existing station drains, area drainage will collect in a sump. This sump is equipped with a single (duty) submersible pump with provision for local/ manual operation in response to sump level alarms. The DPS terminal point for this installation is at the pump outlet flange.

Unloading (tanker lay-by area) drainage – The tanker lay-by area (i.e. between speed bumps) is arranged to drain to a sump which is equipped with an automatic (level controlled) sump pump. This pump transfers effluent/rain water from unloading station lay-by area to the contained area sump via fixed pipework (*see previous paragraph*). Sump level alarms are provided to alert the operator to high sump level conditions.

- **FORWARDING & VAPORISATION**

The forwarding and vaporisation system is provided to take anhydrous ammonia from the bulk storage tanks and discharge it as required to the evaporator units. The latter convert the liquid anhydrous ammonia to ammonia gas.

Forwarding Pumps - The system comprises two (100% duty/standby) skid mounted forwarding pumps that draw from the storage tanks via a forwarding manifold to which both bulk tanks connect.

Ammonia Vaporisers – Three 50% duty ammonia vaporisers are provided to vaporise the liquid ammonia and superheat the resulting ammonia vapour. The evaporators operate in a Duty/Duty/Standby mode and are electrically heated to maintain a preset temperature in the water baths. The bath water level is automatically made-up via a make-up water system. The three skid-mounted evaporators are fed with liquid ammonia from a common inlet manifold connected to the forwarding pumps' common discharge. The water level in the vaporiser is monitored by dual level transmitters and a visual level gauge. When a low bath level is detected the control system initiates a top-up from the potable water system via a solenoid operated valve. A high level overflow allows excess water in the bath to overflow to drain if required.

Venting - Excess pressure in the vapourisers and downstream accumulators is vented via relief valves to a common ammonia vent header. This header discharges to a knock-out pot which vents to atmosphere via a stack above the storage tank canopy.

- **AMMONIA VAPOUR ACCUMULATOR**

The vapour accumulator is provided to accommodate variations in the ammonia flow rate and pressure between the vaporisers and the ammonia distribution system. A single stainless steel pressure vessel, having an approximate capacity of 1.3m³ and maximum operating pressure of 24 Bar, is provided to receive ammonia vapour from the vaporisers.

The vessel discharges to the two ammonia distribution branches, supplying the reactors on the A and B sides, via flow control valves.

Venting - Excess pressure in the vapourisers and downstream accumulators is vented via relief valves to a common ammonia vent header. This header discharges to a knock-out pot which vents to atmosphere via a stack above the storage tank canopy.

- **AMMONIA DISTRIBUTION**

The distribution pipework system supplies the Unit (Side A and Side B) ammonia injection systems via manual shut-off valves. The common ammonia vapour discharge from the accumulators is routed to the Ammonia flow control skids (AFCUs) serving each side of boiler unit SCR's.

Ammonia Flow Control

The flow of ammonia vapour to each of the reactor injection grids (Sides A & B) is regulated by a skid-mounted flow control system. This system controls the flow rate of ammonia vapour to each reactors' AIG in response to the measured NO_x concentration in the reactor inlet duct.

The SCR control system computes the setpoint ammonia mass flow required for the complete conversion of the NO_x. The flow control valve is then modulated in response to the flow meter signal (actual flow) to maintain the required setpoint value. The system provides for duty and standby flow control valves supplying for each reactors' AIG.

Air Dilution/Mixing

The metered flow of ammonia vapour from the AFCU is mixed with, and diluted by, atmospheric air before flowing to the ammonias injection grid. The flow of air is kept constant to ensure that the ammonia distribution from the AIG remains constant regardless of the actual ammonia flow rate.

Dilution Air Supply Skid – Atmospheric air is supplied by two (duty/standby) fixed-speed centrifugal blowers that are equipped with suction filters and silencers.

These blowers each discharge to a common line via pneumatic flow control valves. A pitot flow measuring instrument in the common discharge line provides an actual flow signal that is used to regulate the air flow to a selected (setpoint) value. Automatic blower start is enabled provided at least one ID fan is running or the reactor is (operator) selected to lay-up mode.

Mixing - Dilution air flows from the lay-up air heaters to two static gas mixers (Reactor Sides A and B) into which the ammonia vapour from the flow control skids is flowing. The resulting air/ ammonia mixture flows to the associated reactors' AIG.

Lay-up Heating - Provision is made to heat the dilution air when the reactor is operating in bypass mode or during boiler lay-up periods. Heating is required to keep the catalyst warm and above dew point temperature and requires that the dilution air blowers remain in service.

The dilution air for each reactor side is heated by skid-mounted in duct electrical heater.

Each skid comprises six (4 x Duty/2 x Standby), two element, 42kW layup air heaters. In service, the heaters are individually PLC controlled to maintain the dilution air temperature between 45-50°C (lay-up mode) or >145°C (bypass mode).

- **AMMONIA INJECTION GRID**

As described previously the air/ammonia mixture is distributed across the entire reactor inlet duct area via lances and nozzles connected to a common manifold. The distribution of ammonia to the various "zones" in the duct is set by manual valves on the individual zone ammonia/ air supply pipework.

ANEXO XIII: ID FAN ELECTRICAL DRAWINGS

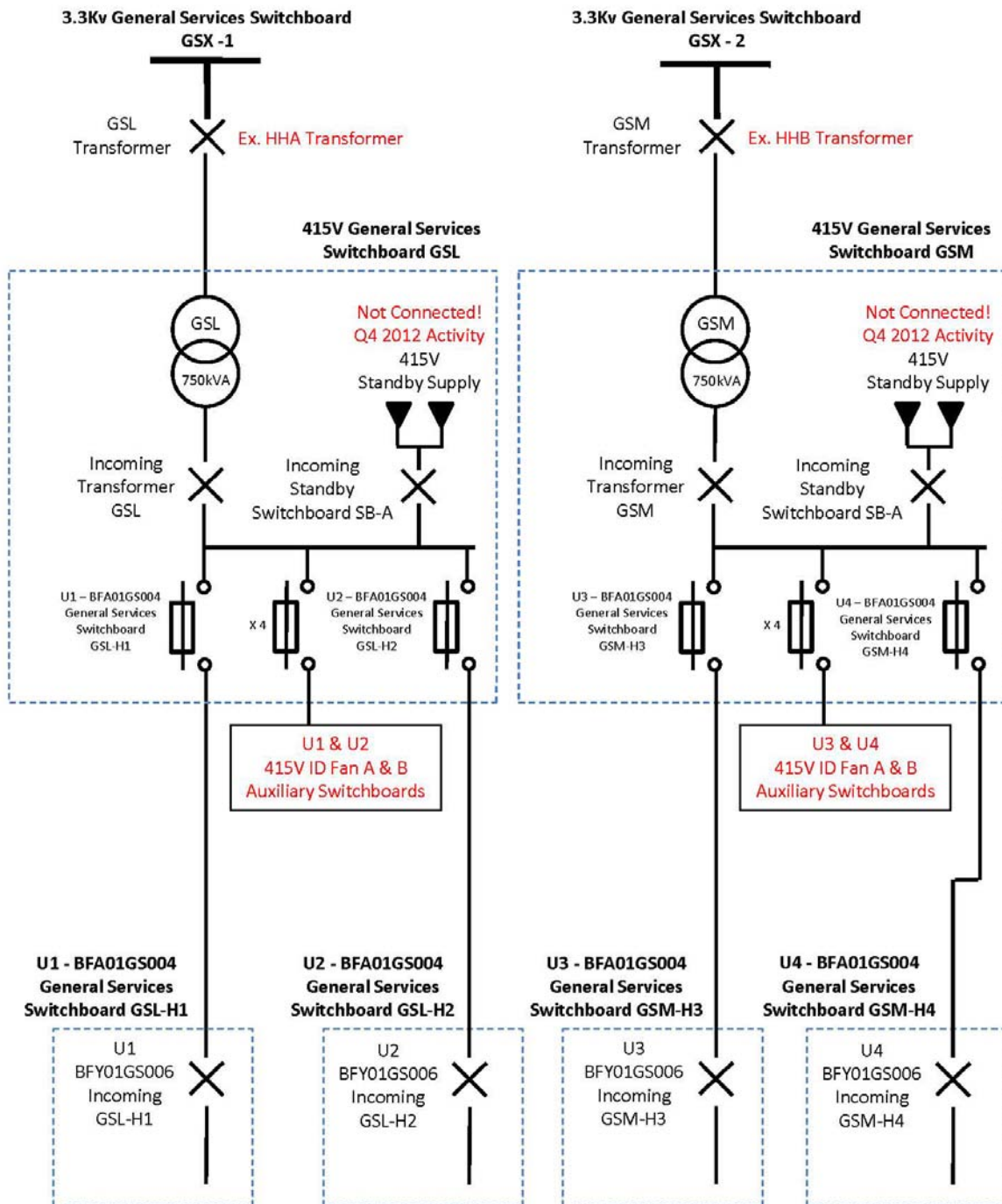


Figure XVIII SCR General Services Single Line Diagram

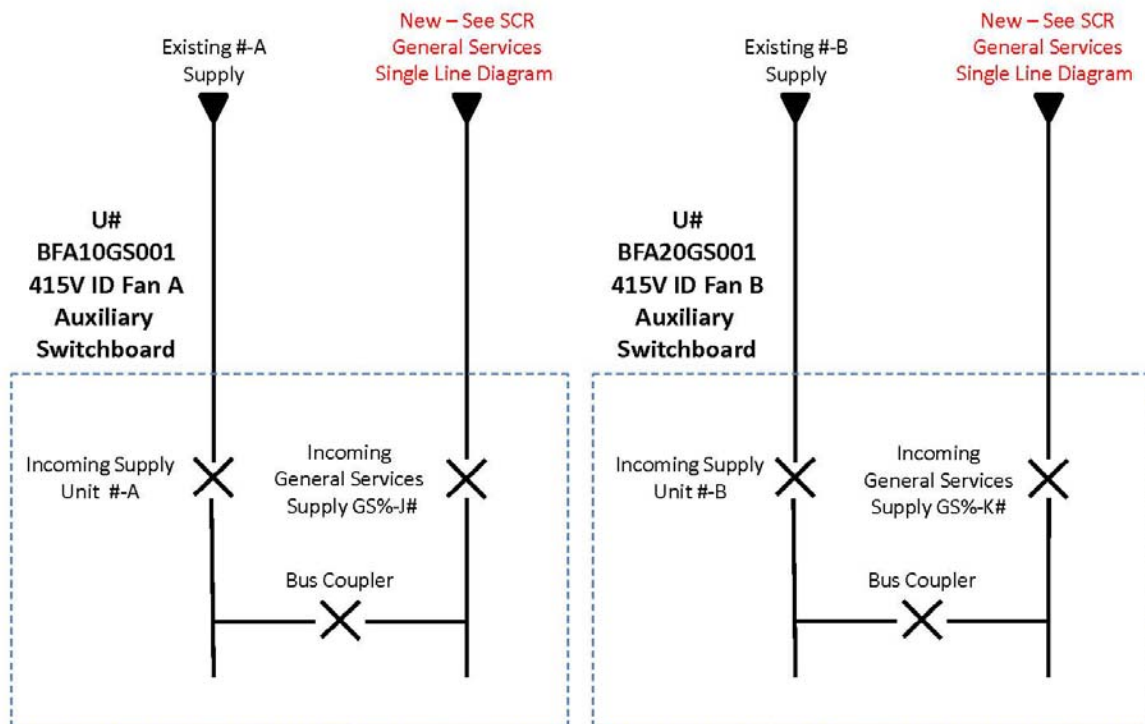


Figure XIX ID Fan Auxiliary Switchboards Single Line Diagram

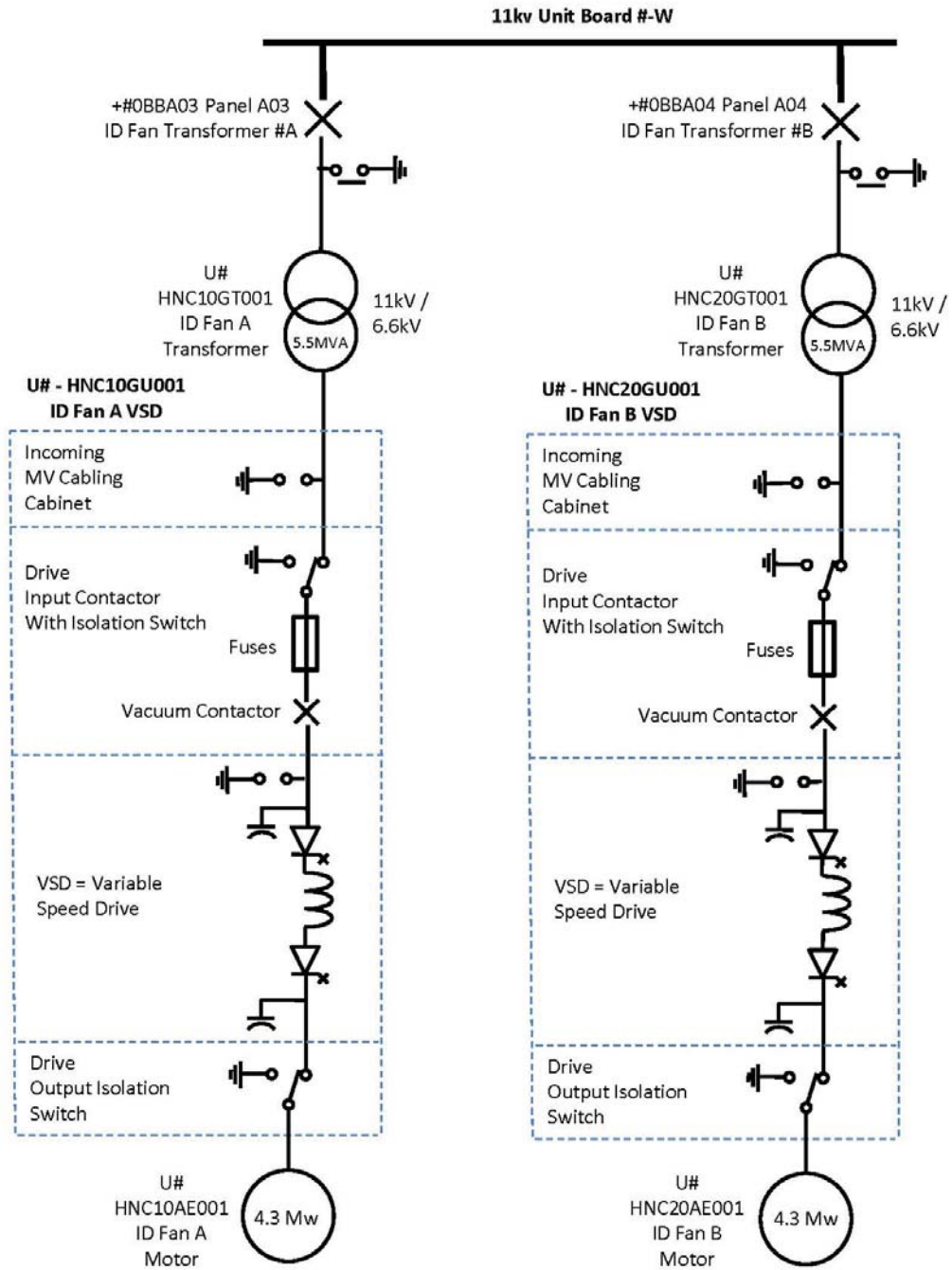


Figure XX SCR ID Fans Single Line Diagram

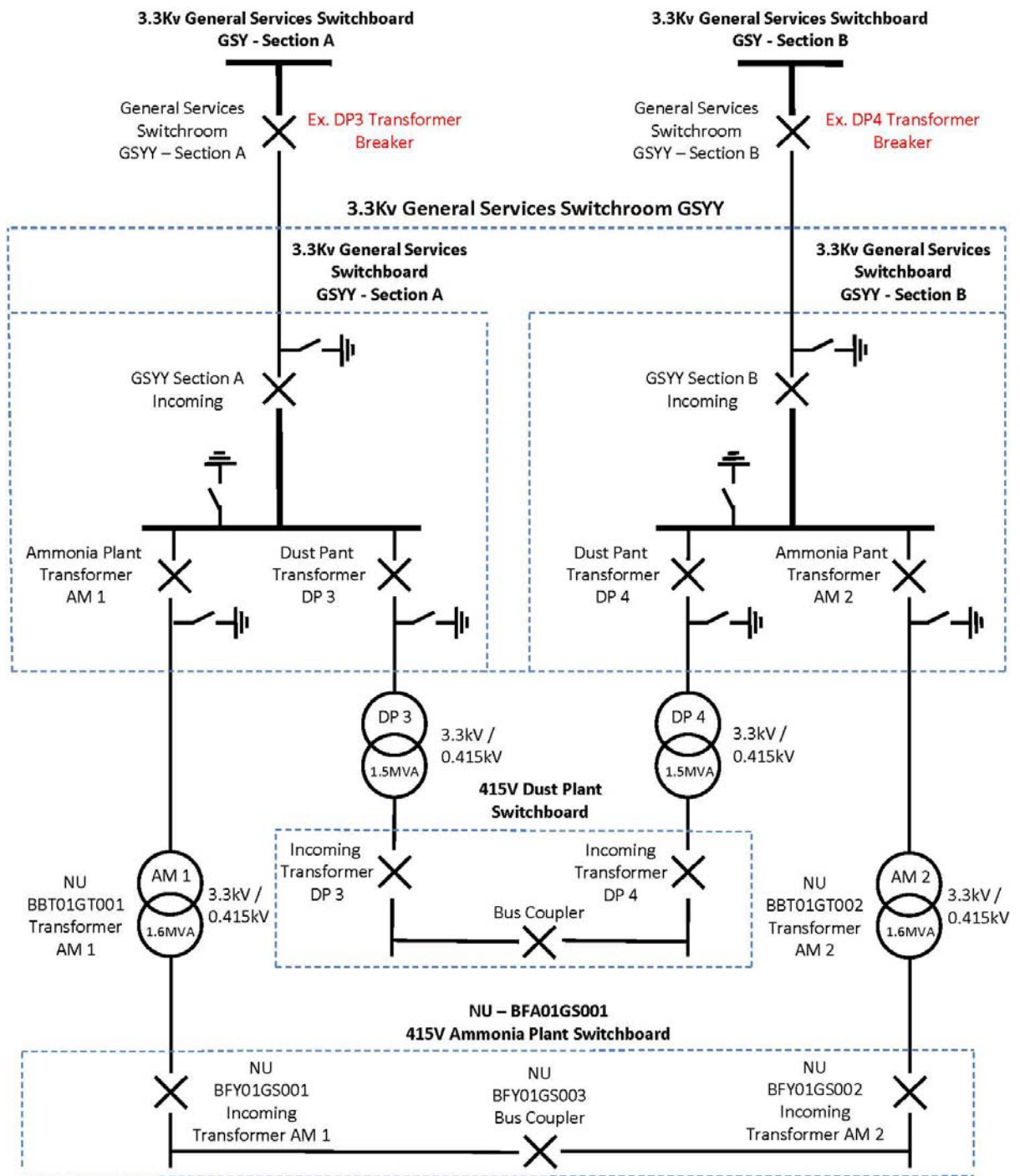


Figure XXII Ammonia Plant Single Line Diagram

ANEXO XIV: ID FANS COMPLETE SAP DESIGN

RAT-NU-3555
ID FAN VSD SYSTEM
RAT-NU-3556
ID FAN VSD SECONDARY COOLING WATER SYSTEM
RAT-NU-3556-ESB
ID FAN VSD SECONDARY COOLING WATER SYSTEM - EMERGENCY STOP
RAT-NU-3556-ESB-PGB01AE001
NU PGB01AE001 ID FAN VSD COOLING WATER PUMP 1 EMERGENCY STOP
RAT-NU-3556-ESB-PGB01AE002
NU PGB01AE002 ID FAN VSD COOLING WATER PUMP 2 EMERGENCY STOP
RAT-NU-3556-ESB-PGB01AE003
NU PGB01AE003 ID FAN VSD COOLING WATER PUMP 3 EMERGENCY STOP
RAT-NU-3556-FLT
ID FAN VSD SECONDARY COOLING WATER SYSTEM - FILTER
RAT-NU-3556-FLT-PGB01AT001
NU PGB01AT001 ID FAN VSD COOLING WATER PUMP(S) SUCTION AUTO CLEAN FILTER
RAT-NU-3556-FLT-PGB01AT002
NU PGB01AT002 ID FAN VSD COOLING WATER PUMP(S) SUCTION MANUAL DUPLEX BASKET FILTER
RAT-NU-3556-FLT-PGB01AT003
NU PGB01AT003 ID FAN VSD COOLING WATER PUMP(S) DISCHARGE AUTO CLEAN FILTER
RAT-NU-3556-FLT-PGB01AT004
NU PGB01AT004 ID FAN VSD COOLING WATER PUMP(S) DISCHARGE MANUAL DUPLEX BASKET FILTER
RAT-NU-3556-HTR
ID FAN VSD SECONDARY COOLING WATER SYSTEM - HEATER
RAT-NU-3556-HTR-PGB01AH101
NU PGB01AH101 ID FAN VSD CW SUPPLY HEADER A TRACE HEATING
RAT-NU-3556-HTR-PGB01AH102
NU PGB01AH102 ID FAN VSD CW SUPPLY HEADER B TRACE HEATING
RAT-NU-3556-HTR-PGB01AH103
NU PGB01AH103 ID FAN VSD CW RETURN HEADER C TRACE HEATING
RAT-NU-3556-HTR-PGB01AH104
NU PGB01AH104 ID FAN VSD CW RETURN HEADER D TRACE HEATING
RAT-NU-3556-HTR-PGB01AH105
NU PGB01AH105 ID FAN VSD COMMON CW VALVE STATIONS TRACE HEATING
RAT-NU-3556-HTR-PGB01AH106
NU PGB01AH106 ID FAN VSD CW HDR SAMPLE AND VENTS TRACE HEATING
RAT-NU-3556-HTR-PGB01AH201
NU PGB01AH201 ID FAN VSD COOLING WATER PUMP 1 ANTI CONDESATION HEATER
RAT-NU-3556-HTR-PGB01AH202
NU PGB01AH202 ID FAN VSD COOLING WATER PUMP 2 ANTI CONDESATION HEATER
RAT-NU-3556-HTR-PGB01AH203
NU PGB01AH203 ID FAN VSD COOLING WATER PUMP 3 ANTI CONDESATION HEATER
RAT-NU-3556-INS

ID FAN VSD SECONDARY COOLING WATER SYSTEM - INSTRUMENT
RAT-NU-3556-INS-PGB01CS001
NU PGB01CS001 ID FAN VSD COOLING WATER PUMP 1 SPEED INDICATOR
RAT-NU-3556-INS-PGB01CS002
NU PGB01CS002 ID FAN VSD COOLING WATER PUMP 2 SPEED INDICATOR
RAT-NU-3556-INS-PGB01CS003
NU PGB01CS003 ID FAN VSD COOLING WATER PUMP 3 SPEED INDICATOR
RAT-NU-3556-INV
ID FAN VSD SECONDARY COOLING WATER SYSTEM - VARIABLE SPEED DRIVE
RAT-NU-3556-INV-PGB01GU001
NU PGB01GU001 ID FAN VSD COOLING WATER PUMP 1 MOTOR VSD
RAT-NU-3556-INV-PGB01GU002
NU PGB01GU002 ID FAN VSD COOLING WATER PUMP 2 MOTOR VSD
RAT-NU-3556-INV-PGB01GU003
NU PGB01GU003 ID FAN VSD COOLING WATER PUMP 3 MOTOR VSD
RAT-NU-3556-MTR
ID FAN VSD SECONDARY COOLING WATER SYSTEM - MOTOR
RAT-NU-3556-MTR-PGB01AE001
NU PGB01AE001 ID FAN VSD COOLING WATER PUMP 1 MOTOR
RAT-NU-3556-MTR-PGB01AE002
NU PGB01AE002 ID FAN VSD COOLING WATER PUMP 2 MOTOR
RAT-NU-3556-MTR-PGB01AE003
NU PGB01AE003 ID FAN VSD COOLING WATER PUMP 3 MOTOR
RAT-NU-3556-MTR-PGB01AE011
NU PGB01AE011 ID FAN VSD COOLING WATER PUMP(S) SUCTION AUTO CLEAN FILTER MOTOR
RAT-NU-3556-MTR-PGB01AE013
NU PGB01AE013 ID FAN VSD COOLING WATER PUMP(S) DISCHARGE AUTO CLEAN FILTER MOTOR
RAT-NU-3556-PGS
ID FAN VSD SECONDARY COOLING WATER SYSTEM - PRESSURE GAUGE
RAT-NU-3556-PGS-PGB01CP001
NU PGB01CP001 ID FAN VSD AUXILIARY COOLING WATER HP SUPPLY PRESSURE INDICATOR
RAT-NU-3556-PGS-PGB01CP002
NU PGB01CP002 ID FAN VSD AUXILIARY COOLING WATER LP SUPPLY PRESSURE INDICATOR
RAT-NU-3556-PGS-PGB01CP009
NU PGB01CP009 ID FAN VSD COOLING WATER PUMP 1 OUTLET PRESSURE INDICATOR
RAT-NU-3556-PGS-PGB01CP010
NU PGB01CP010 ID FAN VSD COOLING WATER PUMP 2 OUTLET PRESSURE INDICATOR
RAT-NU-3556-PGS-PGB01CP011
NU PGB01CP011 ID FAN VSD COOLING WATER PUMP 3 OUTLET PRESSURE INDICATOR
RAT-NU-3556-PGS-PGB01CP018
NU PGB01CP018 ID FAN VSD COOLING WATER PUMP 1 INLET PRESSURE INDICATOR
RAT-NU-3556-PGS-PGB01CP019
NU PGB01CP019 ID FAN VSD COOLING WATER PUMP 2 INLET PRESSURE INDICATOR
RAT-NU-3556-PGS-PGB01CP020

NU PGB01CP020 ID FAN VSD COOLING WATER PUMP 3 INLET PRESSURE INDICATOR
RAT-NU-3556-PMP
ID FAN VSD SECONDARY COOLING WATER SYSTEM - PUMP
RAT-NU-3556-PMP-PGB01AP001
NU PGB01AP001 ID FAN VSD COOLING WATER PUMP 1
RAT-NU-3556-PMP-PGB01AP002
NU PGB01AP002 ID FAN VSD COOLING WATER PUMP 2
RAT-NU-3556-PMP-PGB01AP003
NU PGB01AP003 ID FAN VSD COOLING WATER PUMP 3
RAT-NU-3556-RTD
ID FAN VSD SECONDARY COOLING WATER SYSTEM - RTD
RAT-NU-3556-RTD-PGB01CT101
NU PGB01CT101 ID FAN VSD COOLING WATER MAIN SUPPLY A TRACE HEATING TEMPERATURE ELEMENT
RAT-NU-3556-RTD-PGB01CT102
NU PGB01CT102 ID FAN VSD COOLING WATER MAIN SUPPLY B TRACE HEATING TEMPERATURE ELEMENT
RAT-NU-3556-RTD-PGB01CT103
NU PGB01CT103 ID FAN VSD COOLING WATER MAIN SUPPLY C TRACE HEATING TEMPERATURE ELEMENT
RAT-NU-3556-RTD-PGB01CT104
NU PGB01CT104 ID FAN VSD COOLING WATER MAIN SUPPLY D TRACE HEATING TEMPERATURE ELEMENT
RAT-NU-3556-RTD-PGB01CT106
NU PGB01CT106 ID FAN VSD COOLING WATER MAIN LINE SAMPLE AND VENT TRACE HEATING TEMPERATURE ELEMENT
RAT-NU-3556-SHW
ID FAN VSD SECONDARY COOLING WATER SYSTEM - SHOWER
RAT-NU-3556-SHW-PGB01AW001
NU PGB01AW001 ID FAN VSD PUMP AREA SAFETY SHOWER
RAT-NU-3556-SOL
ID FAN VSD SECONDARY COOLING WATER SYSTEM - SOLENOID
RAT-NU-3556-SOL-PGB01AA419
NU PGB01AA419 ID FAN VSD COOLING WATER PUMP(S) SUCTION AUTO CLEAN FILTER DRAIN VALVE SOLENOID
RAT-NU-3556-SOL-PGB01AA422
NU PGB01AA422 ID FAN VSD COOLING WATER PUMP(S) DISCHARGE AUTO CLEAN FILTER DRAIN VALVE SOLENOID
RAT-NU-3556-TXS
ID FAN VSD SECONDARY COOLING WATER SYSTEM - TRANSMITTER
RAT-NU-3556-TXS-PGB01CP003
NU PGB01CP003 ID FAN VSD COOLING WATER PUMP(S) SUCTION AUTO CLEAN FILTER DIFFERENTIAL PRESSURE TRANSMITTER
RAT-NU-3556-TXS-PGB01CP004
NU PGB01CP004 ID FAN VSD COOLING WATER PUMP SUCTION PRESSURE TRANSMITTER 3
RAT-NU-3556-TXS-PGB01CP005
NU PGB01CP005 ID FAN VSD COOLING WATER PUMP SUCTION PRESSURE TRANSMITTER 2
RAT-NU-3556-TXS-PGB01CP006
NU PGB01CP006 ID FAN VSD COOLING WATER PUMP(S) SUCTION MANUAL DUPLEX BASKET FILTER DIFFERENTIAL PRESSURE TRANSMITTER
RAT-NU-3556-TXS-PGB01CP014
NU PGB01CP014 ID FAN VSD COOLING WATER PUMP(S) DISCHARGE AUTO CLEAN FILTER DIFFERENTIAL PRESSURE TRANSMITTER

RAT-NU-3556-TXS-PGB01CP015
NU PGB01CP015 ID FAN VSD COOLING WATER PUMP(S) DISCHARGE MANUAL DUPLEX BASKET FILTER DIFFERENTIAL PRESSURE TRANSMITTER
RAT-NU-3556-TXS-PGB01CP017
NU PGB01CP017 ID FAN VSD COOLING WATER PUMP SUCTION PRESSURE TRANSMITTER 1
RAT-NU-3556-TXS-PGB01CP021
NU PGB01CP021 ID FAN VSD COOLING WATER PUMP DISCHARGE PRESSURE TRANSMITTER 1
RAT-NU-3556-TXS-PGB01CP022
NU PGB01CP022 ID FAN VSD COOLING WATER PUMP DISCHARGE PRESSURE TRANSMITTER 2
RAT-NU-3556-TXS-PGB01CP023
NU PGB01CP023 ID FAN VSD COOLING WATER PUMP DISCHARGE PRESSURE TRANSMITTER 3
RAT-NU-3556-TXS-PGB01CT001
NU PGB01CT001 ID FAN VSD COOLING WATER PUMP(S) DISCHARGE AUTO CLEAN FILTER OUTLET TEMPERATURE TRANSMITTER
RAT-NU-3556-TXS-PGB01CT002
NU PGB01CT002 ID FAN VSD COOLING WATER PUMP(S) DISCHARGE MANUAL DUPLEX BASKET FILTER OUTLET TEMPERATURE TRANSMITTER
RAT-NU-3556-VLV
ID FAN VSD SECONDARY COOLING WATER SYSTEM - VALVE
RAT-NU-3556-VLV-PGB01AA001
NU PGB01AA001 ID FAN VSD AUXILIARY HP COOLING WATER SUPPLY ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA002
NU PGB01AA002 ID FAN VSD AUXILIARY LP COOLING WATER SUPPLY ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA003
NU PGB01AA003 ID FAN VSD COOLING WATER PUMP(S) SUCTION AUTO CLEAN FILTER INLET ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA005
NU PGB01AA005 ID FAN VSD COOLING WATER PUMP(S) SUCTION AUTO CLEAN FILTER OUTLET ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA006
NU PGB01AA006 ID FAN VSD COOLING WATER PUMP(S) SUCTION MANUAL DUPLEX BASKET FILTER INLET ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA008
NU PGB01AA008 ID FAN VSD COOLING WATER PUMP(S) SUCTION MANUAL DUPLEX BASKET FILTER OUTLET ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA009
NU PGB01AA009 ID FAN VSD COOLING WATER PUMP 1 SUCTION VALVE
RAT-NU-3556-VLV-PGB01AA011
NU PGB01AA011 ID FAN VSD COOLING WATER PUMP 1 DISCHARGE NON-RETURN VALVE
RAT-NU-3556-VLV-PGB01AA012
NU PGB01AA012 ID FAN VSD COOLING WATER PUMP 1 DISCHARGE VALVE
RAT-NU-3556-VLV-PGB01AA013
NU PGB01AA013 ID FAN VSD COOLING WATER PUMP 2 SUCTION VALVE
RAT-NU-3556-VLV-PGB01AA015
NU PGB01AA015 ID FAN VSD COOLING WATER PUMP 2 DISCHARGE NON-RETURN VALVE
RAT-NU-3556-VLV-PGB01AA016
NU PGB01AA016 ID FAN VSD COOLING WATER PUMP 2 DISCHARGE VALVE
RAT-NU-3556-VLV-PGB01AA017
NU PGB01AA017 ID FAN VSD COOLING WATER PUMP 3 SUCTION VALVE
RAT-NU-3556-VLV-PGB01AA019

NU PGB01AA019	ID FAN VSD COOLING WATER PUMP 3 DISCHARGE NON-RETURN VALVE
	RAT-NU-3556-VLV-PGB01AA020
NU PGB01AA020	ID FAN VSD COOLING WATER PUMP 3 DISCHARGE VALVE
	RAT-NU-3556-VLV-PGB01AA021
NU PGB01AA021	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE AUTO CLEAN FILTER INLET ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA023
NU PGB01AA023	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE AUTO CLEAN FILTER OUTLET ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA024
NU PGB01AA024	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE AUTO CLEAN FILTER OUTLET TO HEADER A ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA025
NU PGB01AA025	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE AUTO CLEAN FILTER OUTLET TO HEADER B ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA026
NU PGB01AA026	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE MANUAL DUPLEX BASKET FILTER INLET ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA028
NU PGB01AA028	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE MANUAL DUPLEX BASKET FILTER OUTLET ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA029
NU PGB01AA029	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE MANUAL DUPLEX BASKET FILTER OUTLET TO HEADER A ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA030
NU PGB01AA030	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE MANUAL DUPLEX BASKET FILTER OUTLET TO HEADER B ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA043
NU PGB01AA043	ID FAN VSD AUXILIARY COOLING WATER RETURN HEADER C ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA044
NU PGB01AA044	ID FAN VSD AUXILIARY COOLING WATER RETURN HEADER D ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA060
NU PGB01AA060	ID FAN VSD AUXILIARY COOLING WATER PUMP DISCHARGE RELIEF VALVE 1 (HEADER A) ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA061
NU PGB01AA061	ID FAN VSD AUXILIARY COOLING WATER PUMP DISCHARGE RELIEF VALVE 1 (HEADER B) ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA062
NU PGB01AA062	ID FAN VSD AUXILIARY COOLING WATER PUMP DISCHARGE RELIEF VALVE 2 (HEADER A) ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA063
NU PGB01AA063	ID FAN VSD AUXILIARY COOLING WATER PUMP DISCHARGE RELIEF VALVE 2 (HEADER B) ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA064
NU PGB01AA064	NU ID FAN VSD AUXILIARY COOLING WATER RETURN ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA067
NU PGB01AA067	ID FAN VSD AUXILIARY COOLING WATER PUMP DISCHARGE RELIEF VALVE 3 (HEADER A) ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA068
NU PGB01AA068	ID FAN VSD AUXILIARY COOLING WATER PUMP DISCHARGE RELIEF VALVE 3 (HEADER B) ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA150
NU PGB01AA150	ID FAN VSD AUXILIARY COOLING WATER PUMP ROOM SAFETY SHOWER POTABLE WATER SUPPLY ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA221
NU PGB01AA221	ID FAN VSD COOLING WATER PUMP DISCHARGE RELIEF VALVE 1

RAT-NU-3556-VLV-PGB01AA222
NU PGB01AA222 ID FAN VSD COOLING WATER PUMP DISCHARGE RELIEF VALVE 2
RAT-NU-3556-VLV-PGB01AA223
NU PGB01AA223 ID FAN VSD COOLING WATER PUMP DISCHARGE RELIEF VALVE 3
RAT-NU-3556-VLV-PGB01AA301
NU PGB01AA301 ID FAN VSD COOLING WATER PUMP SUCTION AUTO CLEAN FILTER DIFFERENTIAL PRESSURE TRANSMITTER (INLET) ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA302
NU PGB01AA302 ID FAN VSD COOLING WATER PUMP SUCTION AUTO CLEAN FILTER DIFFERENTIAL PRESSURE TRANSMITTER (OUTLET) ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA303
NU PGB01AA303 ID FAN VSD COOLING WATER PUMP SUCTION PRESSURE TRANSMITTER 3 ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA304
NU PGB01AA304 ID FAN VSD COOLING WATER PUMP SUCTION MANUAL DUPLEX BASKET FILTER DIFFERENTIAL PRESSURE TRANSMITTER (INLET)
RAT-NU-3556-VLV-PGB01AA305
NU PGB01AA305 ID FAN VSD COOLING WATER PUMP SUCTION MANUAL DUPLEX BASKET FILTER DIFFERENTIAL PRESSURE TRANSMITTER (OUTLET)
RAT-NU-3556-VLV-PGB01AA307
NU PGB01AA307 ID FAN VSD COOLING WATER PUMP 1 DISCHARGE PRESSURE GAUGE ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA308
NU PGB01AA308 ID FAN VSD COOLING WATER PUMP 2 DISCHARGE PRESSURE GAUGE ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA309
NU PGB01AA309 ID FAN VSD COOLING WATER PUMP 3 DISCHARGE PRESSURE GAUGE ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA310
NU PGB01AA310 ID FAN VSD COOLING WATER PUMP DISCHARGE PRESSURE TRANSMITTER 1 (HEADER A) 3 WAY ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA311
NU PGB01AA311 ID FAN VSD COOLING WATER PUMP DISCHARGE PRESSURE TRANSMITTER 2 (HEADER A) 3 WAY ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA312
NU PGB01AA312 ID FAN VSD COOLING WATER PUMP DISCHARGE AUTO CLEAN FILTER DIFFERENTIAL PRESSURE TRANSMITTER (INLET) ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA313
NU PGB01AA313 ID FAN VSD COOLING WATER PUMP DISCHARGE AUTO CLEAN FILTER DIFFERENTIAL PRESSURE TRANSMITTER (OUTLET) ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA314
NU PGB01AA314 ID FAN VSD COOLING WATER PUMP DISCHARGE MANUAL DUPLEX BASKET FILTER DIFFERENTIAL PRESSURE TRANSMITTER (INLET)
RAT-NU-3556-VLV-PGB01AA315
NU PGB01AA315 ID FAN VSD COOLING WATER PUMP DISCHARGE MANUAL DUPLEX BASKET FILTER DIFFERENTIAL PRESSURE TRANSMITTER (OUTLET)
RAT-NU-3556-VLV-PGB01AA320
NU PGB01AA320 ID FAN VSD AUXILIARY HP COOLING WATER SUPPLY PRESSURE GAUGE ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA321
NU PGB01AA321 ID FAN VSD AUXILIARY LP COOLING WATER SUPPLY PRESSURE GAUGE ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA322
NU PGB01AA322 ID FAN VSD COOLING WATER PUMP SUCTION PRESSURE TRANSMITTER 2 ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA323
NU PGB01AA323 ID FAN VSD COOLING WATER PUMP SUCTION PRESSURE TRANSMITTER 1 ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA324
NU PGB01AA324 ID FAN VSD COOLING WATER PUMP 1 SUCTION PRESSURE GAUGE ISOLATION VALVE

RAT-NU-3556-VLV-PGB01AA325
NU PGB01AA325 ID FAN VSD COOLING WATER PUMP 2 SUCTION PRESSURE GAUGE ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA326
NU PGB01AA326 ID FAN VSD COOLING WATER PUMP 3 SUCTION PRESSURE GAUGE ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA327
NU PGB01AA327 ID FAN VSD COOLING WATER PUMP DISCHARGE PRESSURE TRANSMITTER 1 (HEADER B) 3 WAY ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA328
NU PGB01AA328 ID FAN VSD COOLING WATER PUMP DISCHARGE PRESSURE TRANSMITTER 2 (HEADER B) 3 WAY ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA329
NU PGB01AA329 ID FAN VSD COOLING WATER PUMP DISCHARGE PRESSURE TRANSMITTER 3 (HEADER B) 3 WAY ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA330
NU PGB01AA330 ID FAN VSD COOLING WATER PUMP DISCHARGE PRESSURE TRANSMITTER 3 (HEADER A) 3 WAY ISOLATION VALVE
RAT-NU-3556-VLV-PGB01AA401
NU PGB01AA401 ID FAN VSD AUXILIARY COOLING WATER HP SUPPLY DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA402
NU PGB01AA402 ID FAN VSD AUXILIARY COOLING WATER LP SUPPLY DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA403
NU PGB01AA403 ID FAN VSD COOLING WATER PUMP1 DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA404
NU PGB01AA404 ID FAN VSD COOLING WATER PUMP1 DISCHARGE DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA405
NU PGB01AA405 ID FAN VSD COOLING WATER PUMP 2 DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA406
NU PGB01AA406 ID FAN VSD COOLING WATER PUMP 2 DISCHARGE DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA407
NU PGB01AA407 ID FAN VSD COOLING WATER PUMP 3 DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA408
NU PGB01AA408 ID FAN VSD COOLING WATER PUMP 3 DISCHARGE DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA409
NU PGB01AA409 ID FAN VSD COOLING WATER SUPPLY HEADER A DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA410
NU PGB01AA410 ID FAN VSD COOLING WATER SUPPLY HEADER B DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA417
NU PGB01AA417 ID FAN VSD COOLING WATER RETURN HEADER D DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA418
NU PGB01AA418 ID FAN VSD COOLING WATER RETURN HEADER C DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA419
NU PGB01AA419 ID FAN VSD COOLING WATER PUMP(S) SUCTION AUTO CLEAN FILTER DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA420
NU PGB01AA420 ID FAN VSD COOLING WATER PUMP(S) SUCTION MANUAL DUPLEX BASKET FILTER 1 DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA421
NU PGB01AA421 ID FAN VSD COOLING WATER PUMP(S) SUCTION MANUAL DUPLEX BASKET FILTER 2 DRAIN VALVE
RAT-NU-3556-VLV-PGB01AA422

NU PGB01AA422	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE AUTO CLEAN FILTER DRAIN VALVE
	RAT-NU-3556-VLV-PGB01AA423
NU PGB01AA423	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE MANUAL DUPLEX BASKET FILTER 1 DRAIN VALVE
	RAT-NU-3556-VLV-PGB01AA424
NU PGB01AA424	ID FAN VSD COOLING WATER PUMP(S) DISCHARGE MANUAL DUPLEX BASKET FILTER 2 DRAIN VALVE
	RAT-NU-3556-VLV-PGB01AA441
NU PGB01AA441	ID FAN VSD AUXILIARY COOLING WATER COMMON RETURN DRAIN VALVE
	RAT-NU-3556-VLV-PGB01AA501
NU PGB01AA501	ID FAN VSD COOLING WATER PUMP 1 DISCHARGE VENT VALVE
	RAT-NU-3556-VLV-PGB01AA502
NU PGB01AA502	ID FAN VSD COOLING WATER PUMP 2 DISCHARGE VENT VALVE
	RAT-NU-3556-VLV-PGB01AA503
NU PGB01AA503	ID FAN VSD COOLING WATER PUMP 3 DISCHARGE VENT VALVE
	RAT-NU-3556-VLV-PGB01AA504
NU PGB01AA504	ID FAN VSD COOLING WATER SUPPLY HEADER A (GRID LINE F) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA505
NU PGB01AA505	ID FAN VSD COOLING WATER SUPPLY HEADER B (GRID LINE F) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA506
NU PGB01AA506	ID FAN VSD COOLING WATER SUPPLY HEADER A (GRID LINE H) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA507
NU PGB01AA507	ID FAN VSD COOLING WATER SUPPLY HEADER B (GRID LINE H) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA508
NU PGB01AA508	ID FAN VSD COOLING WATER SUPPLY HEADER A (BETWEEN UNIT 1 & 2) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA509
NU PGB01AA509	ID FAN VSD COOLING WATER SUPPLY HEADER B (BETWEEN UNIT 1 & 2) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA510
NU PGB01AA510	ID FAN VSD COOLING WATER SUPPLY HEADER A (BETWEEN UNIT 2 & 3) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA511
NU PGB01AA511	ID FAN VSD COOLING WATER SUPPLY HEADER B (BETWEEN UNIT 2 & 3) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA520
NU PGB01AA520	ID FAN VSD COOLING WATER RETURN HEADER D (GRID LINE F) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA521
NU PGB01AA521	ID FAN VSD COOLING WATER RETURN HEADER C (GRID LINE F) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA522
NU PGB01AA522	ID FAN VSD COOLING WATER RETURN HEADER D (GRID LINE H) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA523
NU PGB01AA523	ID FAN VSD COOLING WATER RETURN HEADER C (GRID LINE H) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA572
NU PGB01AA572	ID FAN VSD COOLING WATER SUPPLY HEADER A (BETWEEN UNIT 3 & 4) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA573
NU PGB01AA573	ID FAN VSD COOLING WATER SUPPLY HEADER B (BETWEEN UNIT 3 & 4) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA574
NU PGB01AA574	ID FAN VSD COOLING WATER RETURN HEADER C (BETWEEN UNIT 1 & 2) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA575

NU PGB01AA575	ID FAN VSD COOLING WATER RETURN HEADER D (BETWEEN UNIT 1 & 2) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA576
NU PGB01AA576	ID FAN VSD COOLING WATER RETURN HEADER C (BETWEEN UNIT 2 & 3) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA577
NU PGB01AA577	ID FAN VSD COOLING WATER RETURN HEADER D (BETWEEN UNIT 2 & 3) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA578
NU PGB01AA578	ID FAN VSD COOLING WATER RETURN HEADER C (BETWEEN UNIT 3 & 4) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA579
NU PGB01AA579	ID FAN VSD COOLING WATER RETURN HEADER D (BETWEEN UNIT 3 & 4) VENT VALVE
	RAT-NU-3556-VLV-PGB01AA601
NU PGB01AA601	ID FAN VSD AUXILIARY COOLING WATER HP SUPPLY SAMPLING ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA602
NU PGB01AA602	ID FAN VSD AUXILIARY COOLING WATER LP SUPPLY SAMPLING ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA603
NU PGB01AA603	ID FAN VSD COOLING WATER SUPPLY HEADER A SAMPLING ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA604
NU PGB01AA604	ID FAN VSD COOLING WATER SUPPLY HEADER B SAMPLING ISOLATION VALVE
	RAT-NU-3556-VLV-PGB01AA605
NU PGB01AA605	ID FAN VSD AUXILIARY COOLING WATER COMMON RETURN SAMPLING ISOLATION VALVE
	RAT-NU-3558
	ID FAN VSD SECONDARY COOLING WATER CHEMICAL DOSING SYSTEM
	RAT-NU-3558-VLV
	ID FAN VSD SECONDARY COOLING WATER CHEMICAL DOSING SYSTEM - VALVE
	RAT-NU-3558-VLV-PGB01AA105
NU PGB01AA105	ID FAN VSD COOLING WATER CHEMICAL (DOSING) SUPPLY 1 ISOLATION VALVE
	RAT-NU-3558-VLV-PGB01AA106
NU PGB01AA106	ID FAN VSD COOLING WATER CHEMICAL (DOSING) SUPPLY 2 ISOLATION VALVE
	RAT-NU-3558-VLV-PGB01AA107
NU PGB01AA107	ID FAN VSD COOLING WATER CHEMICAL (DOSING) SUPPLY 3 ISOLATION VALVE
	RAT-NU-3558-VLV-PGB01AA108
NU PGB01AA108	ID FAN VSD COOLING WATER CHEMICAL (DOSING) SUPPLY 4 ISOLATION VALVE
	RAT-NU-3558-VLV-PGB01AA109
NU PGB01AA109	ID FAN VSD COOLING WATER CHEMICAL (DOSING) SUPPLY 5 ISOLATION VALVE
	RAT-NU-3558-VLV-PGB01AA110
NU PGB01AA110	ID FAN VSD COOLING WATER CHEMICAL (DOSING) SUPPLY 6 ISOLATION VALVE
	RAT-U3-3550-ACT-HNC01AA001
	U3 HNC01AA001 ID FAN A INLET DAMPER ACTUATOR
	RAT-U3-3550-ACT-HNC01AA002
	U3 HNC01AA002 ID FAN A OUTLET DAMPER ACTUATOR
	RAT-U3-3550-ACT-HNC02AA001
	U3 HNC02AA001 ID FAN B INLET DAMPER ACTUATOR
	RAT-U3-3550-ACT-HNC02AA002
	U3 HNC02AA002 ID FAN B OUTLET DAMPER ACTUATOR
	RAT-U3-3550-ACT-HNC10AA020

U3 HNC10AA020 ID FAN A BOX VANE CONTROL ACTUATOR
RAT-U3-3550-ACT-HNC20AA020
U3 HNC20AA020 ID FAN B BOX VANE CONTROL ACTUATOR
RAT-U3-3550-BHZ
U3 ID FAN - BUCHHOLZ RELAY
RAT-U3-3550-BHZ-HNC10CP014
U3 HNC10CP014 ID FAN A TRANSFORMER BUCHHOLZ RELAY
RAT-U3-3550-BHZ-HNC20CP014
U3 HNC20CP014 ID FAN B TRANSFORMER BUCHHOLZ RELAY
RAT-U3-3550-BRG-HNC10AE001
U3 HNC10AE001 ID FAN A MOTOR DRIVE END / NON DRIVE END BEARINGS
RAT-U3-3550-BRG-HNC10AN001
U3 HNC10AN001 ID FAN A DRIVE END / NON DRIVE END BEARINGS
RAT-U3-3550-BRG-HNC20AE001
U3 HNC20AE001 ID FAN B MOTOR DRIVE END / NON DRIVE END BEARINGS
RAT-U3-3550-BRG-HNC20AN001
U3 HNC20AN001 ID FAN B DRIVE END / NON DRIVE END BEARINGS
RAT-U3-3550-BRK-HNC10AU002
U3 HNC10AU002 ID FAN A RUN DOWN BRAKE THRUSTER
RAT-U3-3550-BRK-HNC10AU005
U3 HNC10AU005 ID FAN A PARKING BRAKE
RAT-U3-3550-BRK-HNC20AU002
U3 HNC20AU002 ID FAN B RUN DOWN BRAKE THRUSTER
RAT-U3-3550-BRK-HNC20AU005
U3 HNC20AU005 ID FAN B PARKING BRAKE
RAT-U3-3550-DMP-HNC01AA001
U3 HNC01AA001 ID FAN A INLET DAMPER
RAT-U3-3550-DMP-HNC01AA002
U3 HNC01AA002 ID FAN A OUTLET DAMPER
RAT-U3-3550-DMP-HNC02AA001
U3 HNC02AA001 ID FAN B INLET DAMPER
RAT-U3-3550-DMP-HNC02AA002
U3 HNC02AA002 ID FAN B OUTLET DAMPER
RAT-U3-3550-DMP-HNC10AA020
U3 HNC10AA020 ID FAN A BOX VANE CONTROL
RAT-U3-3550-DMP-HNC20AA020
U3 HNC20AA020 ID FAN B BOX VANE CONTROL
RAT-U3-3550-DRV-HNC10AE001
U3 HNC10AE001 ID FAN A MOTOR / FAN COUPLING
RAT-U3-3550-DRV-HNC20AE001
U3 HNC20AE001 ID FAN B MOTOR / FAN COUPLING
RAT-U3-3550-FAN-HNC10AN001
U3 HNC10AN001 ID FAN A
RAT-U3-3550-FAN-HNC20AN001

U3 HNC20AN001 ID FAN B
RAT-U3-3550-HTR-HNC10AH003
U3 HNC10AH003 ID FAN A MOTOR DRIVE END SUMP OIL HEATER
RAT-U3-3550-HTR-HNC10AH004
U3 HNC10AH004 ID FAN A MOTOR NON DRIVE END SUMP OIL HEATER
RAT-U3-3550-HTR-HNC20AH003
U3 HNC20AH003 ID FAN B MOTOR DRIVE END SUMP OIL HEATER
RAT-U3-3550-HTR-HNC20AH004
U3 HNC20AH004 ID FAN B MOTOR NON DRIVE END SUMP OIL HEATER
RAT-U3-3550-IND
U3 ID FAN - INDICATOR
RAT-U3-3550-IND-HNC10CG020
U3 HNC10CG020 ID FAN A VANE CONTROL ACTUATOR POSITION INDICATOR
RAT-U3-3550-IND-HNC10CT021
U3 HNC10CT021 ID FAN A TRANSFORMER LIQUID TEMPERATURE INDICATOR
RAT-U3-3550-IND-HNC20CG020
U3 HNC20CG020 ID FAN B VANE CONTROL ACTUATOR POSITION INDICATOR
RAT-U3-3550-IND-HNC20CT021
U3 HNC20CT021 ID FAN B TRANSFORMER LIQUID TEMPERATURE INDICATOR
RAT-U3-3550-INS-HNC10DS001
U3 HNC10DS001 ID FAN A COUPLING SPEED MONITOR 1
RAT-U3-3550-INS-HNC10DS002
U3 HNC10DS002 ID FAN A COUPLING SPEED MONITOR 2
RAT-U3-3550-INS-HNC20DS001
U3 HNC20DS001 ID FAN B COUPLING SPEED MONITOR 1
RAT-U3-3550-INS-HNC20DS002
U3 HNC20DS002 ID FAN B COUPLING SPEED MONITOR 2
RAT-U3-3550-LIS
U3 ID FAN - LOCAL ISOLATING SWITCH
RAT-U3-3550-LIS-HNC01GS001
U3 HNC01GS001 ID FAN A INLET DAMPER ISOLATOR
RAT-U3-3550-LIS-HNC01GS002
U3 HNC01GS002 ID FAN A OUTLET DAMPER ISOLATOR
RAT-U3-3550-LIS-HNC02GS001
U3 HNC02GS001 ID FAN B INLET DAMPER ISOLATOR
RAT-U3-3550-LIS-HNC02GS002
U3 HNC02GS002 ID FAN B OUTLET DAMPER ISOLATOR
RAT-U3-3550-LIS-HNC10GS020
U3 HNC10GS020 ID FAN A BOX VANE CONTROL ACTUATOR POWER ELECTRONICS ISOLATOR
RAT-U3-3550-LIS-HNC20GS020
U3 HNC20GS020 ID FAN B BOX VANE CONTROL ACTUATOR POWER ELECTRONICS ISOLATOR
RAT-U3-3550-LVL
U3 ID FAN - LEVEL GAUGE
RAT-U3-3550-LVL-HNC10CL006

U3 HNC10CL006	ID FAN A TRANSFORMER LIQUID LEVEL GAUGE
	RAT-U3-3550-LVL-HNC20CL006
U3 HNC20CL006	ID FAN B TRANSFORMER LIQUID LEVEL GAUGE
	RAT-U3-3550-LVS
U3 ID FAN - LEVEL SWITCH	
	RAT-U3-3550-LVS-HNC10CL003
U3 HNC10CL003	ID FAN A MOTOR DRIVE END BEARING OIL LEVEL SWITCH
	RAT-U3-3550-LVS-HNC10CL004
U3 HNC10CL004	ID FAN A MOTOR NON DRIVE END BEARING OIL LEVEL SWITCH
	RAT-U3-3550-LVS-HNC20CL003
U3 HNC20CL003	ID FAN B MOTOR DRIVE END BEARING OIL LEVEL SWITCH
	RAT-U3-3550-LVS-HNC20CL004
U3 HNC20CL004	ID FAN B MOTOR NON DRIVE END BEARING OIL LEVEL SWITCH
	RAT-U3-3550-MTR-HNC10AE001
U3 HNC10AE001	ID FAN A MOTOR
	RAT-U3-3550-MTR-HNC20AE001
U3 HNC20AE001	ID FAN B MOTOR
	RAT-U3-3550-PNL
U3 ID FAN - CONTROL PANEL	
	RAT-U3-3550-PNL-HNC01GH001
U3 HNC01GH001	ID FAN SENSONICS MONITORING PANEL
	RAT-U3-3550-PNL-HNC01GH002
U3 HNC01GH002	ID FAN PRESSURE TRANSMITTER CUBICLE
	RAT-U3-3550-PNL-HNC10GH001
U3 HNC10GH001	ID FAN A BOX VANE DAMPER CONTROL ACTUATOR LOCAL CONTROL ENCLOSURE
	RAT-U3-3550-PNL-HNC10GH002
U3 HNC10GH002	ID FAN A RUN DOWN BRAKE THRUSTER CONTROLLER ENCLOSURE
	RAT-U3-3550-PNL-HNC20GH001
U3 HNC20GH001	ID FAN B BOX VANE DAMPER CONTROL ACTUATOR LOCAL CONTROL ENCLOSURE
	RAT-U3-3550-PNL-HNC20GH002
U3 HNC20GH002	ID FAN B RUN DOWN BRAKE THRUSTER CONTROLLER ENCLOSURE
	RAT-U3-3550-RTD
U3 ID FAN - RTD	
	RAT-U3-3550-RTD-HNC10CT001
U3 HNC10CT001	ID FAN A MOTOR DRIVE END BEARING TEMPERATURE ELEMENT
	RAT-U3-3550-RTD-HNC10CT002
U3 HNC10CT002	ID FAN A MOTOR NON DRIVE END BEARING TEMPERATURE ELEMENT
	RAT-U3-3550-RTD-HNC10CT003
U3 HNC10CT003	ID FAN A MOTOR DRIVE END FRAME COLD INLET AIR TEMPERATURE ELEMENT 1
	RAT-U3-3550-RTD-HNC10CT004
U3 HNC10CT004	ID FAN A MOTOR FRAME HOT OUTLET AIR TEMPERATURE ELEMENT
	RAT-U3-3550-RTD-HNC10CT005
U3 HNC10CT005	ID FAN A MOTOR NON DRIVE END FRAME COLD INLET AIR TEMPERATURE ELEMENT 2
	RAT-U3-3550-RTD-HNC10CT006

U3 HNC10CT006	ID FAN A MOTOR WINDING PHASE 1 TEMPERATURE ELEMENT 1
	RAT-U3-3550-RTD-HNC10CT007
U3 HNC10CT007	ID FAN A MOTOR WINDING PHASE 1 TEMPERATURE ELEMENT 2
	RAT-U3-3550-RTD-HNC10CT008
U3 HNC10CT008	ID FAN A MOTOR WINDING PHASE 1 TEMPERATURE ELEMENT 3
	RAT-U3-3550-RTD-HNC10CT009
U3 HNC10CT009	ID FAN A MOTOR WINDING PHASE 2 TEMPERATURE ELEMENT 1
	RAT-U3-3550-RTD-HNC10CT010
U3 HNC10CT010	ID FAN A MOTOR WINDING PHASE 2 TEMPERATURE ELEMENT 2
	RAT-U3-3550-RTD-HNC10CT011
U3 HNC10CT011	ID FAN A MOTOR WINDING PHASE 2 TEMPERATURE ELEMENT 3
	RAT-U3-3550-RTD-HNC10CT012
U3 HNC10CT012	ID FAN A MOTOR WINDING PHASE 3 TEMPERATURE ELEMENT 1
	RAT-U3-3550-RTD-HNC10CT013
U3 HNC10CT013	ID FAN A MOTOR WINDING PHASE 3 TEMPERATURE ELEMENT 2
	RAT-U3-3550-RTD-HNC10CT014
U3 HNC10CT014	ID FAN A MOTOR WINDING PHASE 3 TEMPERATURE ELEMENT 3
	RAT-U3-3550-RTD-HNC10CT019
U3 HNC10CT019	ID FAN A MOTOR DRIVE END SUMP OIL TEMPERATURE ELEMENT
	RAT-U3-3550-RTD-HNC10CT020
U3 HNC10CT020	ID FAN A MOTOR NON DRIVE END SUMP OIL TEMPERATURE ELEMENT
	RAT-U3-3550-RTD-HNC20CT001
U3 HNC20CT001	ID FAN B MOTOR DRIVE END BEARING TEMPERATURE ELEMENT
	RAT-U3-3550-RTD-HNC20CT002
U3 HNC20CT002	ID FAN B MOTOR NON DRIVE END BEARING TEMPERATURE ELEMENT
	RAT-U3-3550-RTD-HNC20CT003
U3 HNC20CT003	ID FAN B MOTOR DRIVE END FRAME COLD INLET AIR TEMPERATURE ELEMENT 1
	RAT-U3-3550-RTD-HNC20CT004
U3 HNC20CT004	ID FAN B MOTOR FRAME HOT OUTLET AIR TEMPERATURE ELEMENT
	RAT-U3-3550-RTD-HNC20CT005
U3 HNC20CT005	ID FAN B MOTOR NON DRIVE END FRAME COLD INLET AIR TEMPERATURE ELEMENT 2
	RAT-U3-3550-RTD-HNC20CT006
U3 HNC20CT006	ID FAN B MOTOR WINDING PHASE 1 TEMPERATURE ELEMENT 1
	RAT-U3-3550-RTD-HNC20CT007
U3 HNC20CT007	ID FAN B MOTOR WINDING PHASE 1 TEMPERATURE ELEMENT 2
	RAT-U3-3550-RTD-HNC20CT008
U3 HNC20CT008	ID FAN B MOTOR WINDING PHASE 1 TEMPERATURE ELEMENT 3
	RAT-U3-3550-RTD-HNC20CT009
U3 HNC20CT009	ID FAN B MOTOR WINDING PHASE 2 TEMPERATURE ELEMENT 1
	RAT-U3-3550-RTD-HNC20CT010
U3 HNC20CT010	ID FAN B MOTOR WINDING PHASE 2 TEMPERATURE ELEMENT 2
	RAT-U3-3550-RTD-HNC20CT011
U3 HNC20CT011	ID FAN B MOTOR WINDING PHASE 2 TEMPERATURE ELEMENT 3
	RAT-U3-3550-RTD-HNC20CT012

U3 HNC20CT012	ID FAN B MOTOR WINDING PHASE 3 TEMPERATURE ELEMENT 1
	RAT-U3-3550-RTD-HNC20CT013
U3 HNC20CT013	ID FAN B MOTOR WINDING PHASE 3 TEMPERATURE ELEMENT 2
	RAT-U3-3550-RTD-HNC20CT014
U3 HNC20CT014	ID FAN B MOTOR WINDING PHASE 3 TEMPERATURE ELEMENT 3
	RAT-U3-3550-RTD-HNC20CT019
U3 HNC20CT019	ID FAN B MOTOR DRIVE END SUMP OIL TEMPERATURE ELEMENT
	RAT-U3-3550-RTD-HNC20CT020
U3 HNC20CT020	ID FAN B MOTOR NON DRIVE END SUMP OIL TEMPERATURE ELEMENT
	RAT-U3-3550-SEN
	U3 ID FAN - SENSOR
	RAT-U3-3550-SEN-HNC10CS001
U3 HNC10CS001	ID FAN A COUPLING SPEED SENSOR 1
	RAT-U3-3550-SEN-HNC10CS002
U3 HNC10CS002	ID FAN A COUPLING SPEED SENSOR 2
	RAT-U3-3550-SEN-HNC20CS001
U3 HNC20CS001	ID FAN B COUPLING SPEED SENSOR 1
	RAT-U3-3550-SEN-HNC20CS002
U3 HNC20CS002	ID FAN B COUPLING SPEED SENSOR 2
	RAT-U3-3550-SWT-AIDBCE-1
U3 HNC10GH002	ID FAN A RUN DOWN BRAKE CONTROLLER ENCLOSURE SUPPLY 1
	RAT-U3-3550-SWT-AIDBCE-2
U3 HNC10GH002	ID FAN A RUN DOWN BRAKE CONTROLLER ENCLOSURE SUPPLY 2
	RAT-U3-3550-SWT-BIDBCE-1
U3 HNC20GH002	ID FAN B RUN DOWN BRAKE CONTROLLER ENCLOSURE SUPPLY 1
	RAT-U3-3550-SWT-BIDBCE-2
U3 HNC20GH002	ID FAN B RUN DOWN BRAKE CONTROLLER ENCLOSURE SUPPLY 2
	RAT-U3-3550-SWT-HNC01AA001
U3 HNC01AA001	ID FAN A INLET DAMPER 415V CONTACTOR
	RAT-U3-3550-SWT-HNC02AA001
U3 HNC02AA001	ID FAN B INLET DAMPER 415V CONTACTOR
	RAT-U3-3550-SWT-HNC10AA020
U3 HNC10AA020	ID FAN A BOX VANE CONTROL ACTUATOR POWER ELECTRONICS
	RAT-U3-3550-SWT-HNC10AH003
U3 HNC10AH003	ID FAN A MOTOR DE BEARING HEATER 415V CONTACTOR
	RAT-U3-3550-SWT-HNC10AH004
U3 HNC10AH004	ID FAN A MOTOR NDE BEARING HEATER 415V CONTACTOR
	RAT-U3-3550-SWT-HNC10AU002
U3 HNC10AU002	ID FAN A RUN DOWN BRAKE 415V ISOLATOR
	RAT-U3-3550-SWT-HNC20AA020
U3 HNC20AA020	ID FAN B BOX VANE CONTROL ACTUATOR POWER ELECTRONICS
	RAT-U3-3550-SWT-HNC20AH003
U3 HNC20AH003	ID FAN B MOTOR DE BEARING HEATER 415V CONTACTOR
	RAT-U3-3550-SWT-HNC20AH004

U3 HNC20AH004 ID FAN B MOTOR NDE BEARING HEATER 415V CONTACTOR
RAT-U3-3550-SWT-HNC20AU002
U3 HNC20AU002 ID FAN B RUN DOWN BRAKE 415V ISOLATOR
RAT-U3-3550-SWX
U3 ID FAN - AUXILIARY SWITCH
RAT-U3-3550-SWX-HNC10CG003
U3 HNC10CG003 ID FAN A RUN DOWN BRAKE POSITION SWITCH 1
RAT-U3-3550-SWX-HNC10CG004
U3 HNC10CG004 ID FAN A RUN DOWN BRAKE POSITION SWITCH 2
RAT-U3-3550-SWX-HNC10CG005
U3 HNC10CG005 ID FAN A PARKING BRAKE POSITION SWITCH
RAT-U3-3550-SWX-HNC10CG020
U3 HNC10CG020 ID FAN A BOX VANE DAMPER CONTROL CLOSED LIMIT SWITCH
RAT-U3-3550-SWX-HNC20CG003
U3 HNC20CG003 ID FAN B RUN DOWN BRAKE POSITION SWITCH 1
RAT-U3-3550-SWX-HNC20CG004
U3 HNC20CG004 ID FAN B RUN DOWN BRAKE POSITION SWITCH 2
RAT-U3-3550-SWX-HNC20CG005
U3 HNC20CG005 ID FAN B PARKING BRAKE POSITION SWITCH
RAT-U3-3550-SWX-HNC20CG020
U3 HNC20CG020 ID FAN B BOX VANE DAMPER CONTROL CLOSED LIMIT SWITCH
RAT-U3-3550-TFR-BJA01GT001
U3 BJA01GT001 ID FAN 415/110V TRANSFORMER
RAT-U3-3550-VIB
U3 ID FAN - VIBRATION
RAT-U3-3550-VIB-HNC10CY001
U3 HNC10CY001 ID FAN A MOTOR DRIVE END BEARING VIBRATION ELEMENT
RAT-U3-3550-VIB-HNC10CY002
U3 HNC10CY002 ID FAN A MOTOR NON DRIVE END BEARING VIBRATION ELEMENT
RAT-U3-3550-VIB-HNC10CY005
U3 HNC10CY005 ID FAN A DRIVE END BEARING VIBRATION ELEMENT
RAT-U3-3550-VIB-HNC10CY006
U3 HNC10CY006 ID FAN A NON DRIVE END BEARING VIBRATION ELEMENT
RAT-U3-3550-VIB-HNC20CY001
U3 HNC20CY001 ID FAN B MOTOR DRIVE END BEARING VIBRATION ELEMENT
RAT-U3-3550-VIB-HNC20CY002
U3 HNC20CY002 ID FAN B MOTOR NON DRIVE END BEARING VIBRATION ELEMENT
RAT-U3-3550-VIB-HNC20CY005
U3 HNC20CY005 ID FAN B DRIVE END BEARING VIBRATION ELEMENT
RAT-U3-3550-VIB-HNC20CY006
U3 HNC20CY006 ID FAN B NON DRIVE END BEARING VIBRATION ELEMENT
RAT-U3-3553
U3 ID FAN A LUBRICATION SYSTEM
RAT-U3-3553-CLR

U3 ID FAN A LUBRICATION SYSTEM - COOLER
RAT-U3-3553-CLR-HNC10AN002
U3 HNC10AN002 ID FAN A LUBE OIL MAIN AIR BLAST OIL COOLER
RAT-U3-3553-CLR-HNC10AN003
U3 HNC10AN003 ID FAN A LUBE OIL AUXILIARY AIR BLAST OIL COOLER
RAT-U3-3553-FLO
U3 ID FAN A LUBRICATION SYSTEM - FLOW GLASS
RAT-U3-3553-FLO-HNC10CF001
U3 HNC10CF001 ID FAN A DRIVE END BEARING LUBE OIL FLOW GLASS
RAT-U3-3553-FLO-HNC10CF002
U3 HNC10CF002 ID FAN A NON DRIVE END BEARING LUBE OIL FLOW GLASS
RAT-U3-3553-FLT
U3 ID FAN A LUBRICATION SYSTEM - FILTER
RAT-U3-3553-FLT-HNC10AT001
U3 HNC10AT001 ID FAN A LUBE OIL DUPLEX FILTER
RAT-U3-3553-HTR
U3 ID FAN A LUBRICATION SYSTEM - HEATER
RAT-U3-3553-HTR-HNC10AE002
U3 HNC10AE002 ID FAN A LUBE OIL MAIN PUMP MOTOR ANTI COND HEATER
RAT-U3-3553-HTR-HNC10AE003
U3 HNC10AE003 ID FAN A LUBE OIL AUX PUMP MOTOR ANTI COND HEATER
RAT-U3-3553-HTR-HNC10AH001
U3 HNC10AH001 ID FAN A LUBE OIL TANK IMMERSION HEATER 1
RAT-U3-3553-HTR-HNC10AH002
U3 HNC10AH002 ID FAN A LUBE OIL TANK IMMERSION HEATER 2
RAT-U3-3553-HTR-HNC10AN002
U3 HNC10AN002 ID FAN A LUBE OIL MAIN AIR BLAST OIL COOLER ANTI COND HEATER
RAT-U3-3553-HTR-HNC10AN003
U3 HNC10AN003 ID FAN A LUBE OIL AUX AIR BLAST OIL COOLER ANTI COND HEATER
RAT-U3-3553-LVL
U3 ID FAN A LUBRICATION SYSTEM - LEVEL GLASS
RAT-U3-3553-LVL-HNC10CL001
U3 HNC10CL001 ID FAN A LUBE OIL TANK LEVEL GLASS
RAT-U3-3553-LVS
U3 ID FAN A LUBRICATION SYSTEM - LEVEL SWITCH
RAT-U3-3553-LVS-HNC10CL002
U3 HNC10CL002 ID FAN A LUBE OIL TANK LOW LEVEL SWITCH
RAT-U3-3553-LVS-HNC10CL005
U3 HNC10CL005 ID FAN A LUBE OIL TANK LOW LOW LEVEL SWITCH
RAT-U3-3553-MTR
U3 ID FAN A LUBRICATION SYSTEM - MOTOR
RAT-U3-3553-MTR-HNC10AE002
U3 HNC10AE002 ID FAN A LUBE OIL MAIN PUMP MOTOR
RAT-U3-3553-MTR-HNC10AE003

U3 HNC10AE003 ID FAN A LUBE OIL AUXILIARY PUMP MOTOR
RAT-U3-3553-ORI
U3 ID FAN A LUBRICATION SYSTEM - ORIFICE
RAT-U3-3553-ORI-HNC10BP001
U3 HNC10BP001 ID FAN A NON DRIVE END BEARING ORIFICE PLATE
RAT-U3-3553-ORI-HNC10BP002
U3 HNC10BP002 ID FAN A DRIVE END BEARING ORIFICE PLATE
RAT-U3-3553-PGS
U3 ID FAN A LUBRICATION SYSTEM - PRESSURE GAUGE
RAT-U3-3553-PGS-HNC10CP004
U3 HNC10CP004 ID FAN A MAIN LUBE OIL PUMP PRESSURE INDICATOR
RAT-U3-3553-PGS-HNC10CP005
U3 HNC10CP005 ID FAN A AUXILIARY LUBE OIL PUMP PRESSURE INDICATOR
RAT-U3-3553-PGS-HNC10CP006
U3 HNC10CP006 ID FAN A LUBE OIL TANK OUTPUT PRESSURE INDICATOR
RAT-U3-3553-PGS-HNC10CP010
U3 HNC10CP010 ID FAN A DRIVE END BEARING LUBE OIL PRESSURE INDICATOR
RAT-U3-3553-PGS-HNC10CP013
U3 HNC10CP013 ID FAN A NON DRIVE END BEARING LUBE OIL PRESSURE INDICATOR
RAT-U3-3553-PMP
U3 ID FAN A LUBRICATION SYSTEM - PUMP
RAT-U3-3553-PMP-HNC10AP002
U3 HNC10AP002 ID FAN A LUBE OIL MAIN PUMP
RAT-U3-3553-PMP-HNC10AP003
U3 HNC10AP003 ID FAN A LUBE OIL AUXILIARY PUMP
RAT-U3-3553-PSW
U3 ID FAN A LUBRICATION SYSTEM - PRESSURE SWITCH
RAT-U3-3553-PSW-HNC10CP001
U3 HNC10CP001 ID FAN A MAIN LUBE OIL PUMP PRESSURE SWITCH
RAT-U3-3553-PSW-HNC10CP002
U3 HNC10CP002 ID FAN A AUXILIARY LUBE OIL PUMP PRESSURE SWITCH
RAT-U3-3553-PSW-HNC10CP003
U3 HNC10CP003 ID FAN A LUBE OIL TANK OUTPUT PRESSURE SWITCH
RAT-U3-3553-PSW-HNC10CP007
U3 HNC10CP007 ID FAN A LUBE OIL DUPLEX FILTER DIFFERENTIAL PRESSURE SWITCH
RAT-U3-3553-PSW-HNC10CP008
U3 HNC10CP008 ID FAN A DRIVE END BEARING LUBE OIL LOW PRESSURE SWITCH
RAT-U3-3553-PSW-HNC10CP009
U3 HNC10CP009 ID FAN A DRIVE END BEARING LUBE OIL LOW LOW PRESSURE SWITCH
RAT-U3-3553-PSW-HNC10CP011
U3 HNC10CP011 ID FAN A NON DRIVE END BEARING LUBE OIL LOW PRESSURE SWITCH
RAT-U3-3553-PSW-HNC10CP012
U3 HNC10CP012 ID FAN A NON DRIVE END BEARING LUBE OIL LOW LOW PRESSURE SWITCH
RAT-U3-3553-PWK

U3 ID FAN A LUBRICATION SYSTEM - PIPEWORK
RAT-U3-3553-PWK-A-LUBOIL
U3 ID FAN A LUBE OIL PIPEWORK
RAT-U3-3553-RTD
U3 ID FAN A LUBRICATION SYSTEM - RESISTIVE THERMAL DEVICE
RAT-U3-3553-RTD-HNC10CT015
U3 HNC10CT015 ID FAN A LUBE OIL TANK TEMPERATURE ELEMENT 1
RAT-U3-3553-RTD-HNC10CT016
U3 HNC10CT016 ID FAN A LUBE OIL TANK TEMPERATURE ELEMENT 2
RAT-U3-3553-RTD-HNC10CT017
U3 HNC10CT017 ID FAN A DRIVE END BEARING TEMPERATURE ELEMENT
RAT-U3-3553-RTD-HNC10CT018
U3 HNC10CT018 ID FAN A NON DRIVE END BEARING TEMPERATURE ELEMENT
RAT-U3-3553-SWT
U3 ID FAN A LUBRICATION SYSTEM - SWITCH
RAT-U3-3553-SWT-HNC10AE002
U3 HNC10AE002 ID FAN A LUBE OIL MAIN PUMP MOTOR 415V CONTACTOR
RAT-U3-3553-SWT-HNC10AE003
U3 HNC10AE003 ID FAN A LUBE OIL AUX PUMP MOTOR 415V CONTACTOR
RAT-U3-3553-SWT-HNC10AH001
U3 HNC10AH001 ID FAN A LUBE OIL TANK IMMERSION HEATER 1 415V CONTACTOR
RAT-U3-3553-SWT-HNC10AH002
U3 HNC10AH002 ID FAN A LUBE OIL TANK IMMERSION HEATER 2 415V CONTACTOR
RAT-U3-3553-SWT-HNC10AN002
U3 HNC10AN002 ID FAN A LUBE OIL MAIN AIR BLAST OIL COOLER 415V CONTACTOR
RAT-U3-3553-SWT-HNC10AN003
U3 HNC10AN003 ID FAN A LUBE OIL AUX AIR BLAST OIL COOLER 415V CONTACTOR
RAT-U3-3553-SWX
U3 ID FAN A LUBRICATION SYSTEM - INDICATOR
RAT-U3-3553-SWX-HNC10CT024
U3 HNC10CT024 ID FAN A LUBE OIL TANK OUTPUT TEMPERATURE ALARM SWITCH
RAT-U3-3553-TNK
U3 ID FAN A LUBRICATION SYSTEM - TANK
RAT-U3-3553-TNK-HNC10BB001
U3 HNC10BB001 ID FAN A LUBE OIL TANK
RAT-U3-3553-TXS
U3 ID FAN A LUBRICATION SYSTEM - TRANSMITTER
RAT-U3-3553-TXS-HNC10CT015
U3 HNC10CT015 ID FAN A LUBE OIL TANK TEMPERATURE TRANSMITTER 1
RAT-U3-3553-TXS-HNC10CT016
U3 HNC10CT016 ID FAN A LUBE OIL TANK TEMPERATURE TRANSMITTER 2
RAT-U3-3553-VLV
U3 ID FAN A LUBRICATION SYSTEM - VALVE
RAT-U3-3553-VLV-HNC10AA001

U3 HNC10AA001 ID FAN A MAIN LUBE OIL PUMP INLET NON RETURN VALVE
RAT-U3-3553-VLV-HNC10AA002
U3 HNC10AA002 ID FAN A MAIN LUBE OIL PUMP OUTLET NON RETURN VALVE
RAT-U3-3553-VLV-HNC10AA003
U3 HNC10AA003 ID FAN A AUXILIARY LUBE OIL PUMP INLET NON RETURN VALVE
RAT-U3-3553-VLV-HNC10AA004
U3 HNC10AA004 ID FAN A AUXILIARY LUBE OIL PUMP OUTLET NON RETURN VALVE
RAT-U3-3553-VLV-HNC10AA005
U3 HNC20AA005 ID FAN A LUBE OIL MAIN AIR BLAST COOLER INLET ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA006
U3 HNC20AA006 ID FAN A LUBE OIL MAIN AIR BLAST COOLER OUTLET ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA007
U3 HNC10AA007 ID FAN A LUBE OIL AUXILIARY AIR BLAST COOLER INLET ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA008
U3 HNC10AA008 ID FAN A LUBE OIL AUXILIARY AIR BLAST COOLER OUTLET ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA009
U3 HNC10AA009 ID FAN A LUBE OIL SYSTEM TEMPERATURE CONTROL VALVE
RAT-U3-3553-VLV-HNC10AA010
U3 HNC10AA010 ID FAN A LUBE OIL SYSTEM OUTLET NON RETURN VALVE
RAT-U3-3553-VLV-HNC10AA011
U3 HNC10AA011 ID FAN A LUBE OIL SYSTEM ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA012
U3 HNC10AA012 ID FAN A DRIVE END BEARING LUBE OIL NEEDLE VALVE
RAT-U3-3553-VLV-HNC10AA013
U3 HNC10AA013 ID FAN A NON DRIVE END BEARING LUBE OIL NEEDLE VALVE
RAT-U3-3553-VLV-HNC10AA251
U3 HNC10AA251 ID FAN A LUBE OIL PRESSURE RELIEF VALVE
RAT-U3-3553-VLV-HNC10AA301
U3 HNC10AA301 ID FAN A DRIVE END BEARING LUBE OIL PRESSURE INDICATOR ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA302
U3 HNC10AA302 ID FAN A DRIVE END BEARING LUBE OIL LOW PRESSURE SWITCH ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA303
U3 HNC10AA303 ID FAN A DRIVE END BEARING LUBE OIL LOW LOW PRESSURE SWITCH ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA304
U3 HNC10AA304 ID FAN A NON DRIVE END BEARING LUBE OIL PRESSURE INDICATOR ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA305
U3 HNC10AA305 ID FAN A NON DRIVE END BEARING LUBE OIL LOW PRESSURE SWITCH ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA306
U3 HNC10AA306 ID FAN A NON DRIVE END BEARING LUBE OIL LOW LOW PRESSURE SWITCH ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA307
U3 HNC10AA307 ID FAN A MAIN LUBE OIL PUMP PRESSURE INDICATOR ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA308
U3 HNC10AA308 ID FAN A MAIN LUBE OIL PUMP PRESSURE SWITCH ISOLATION VALVE
RAT-U3-3553-VLV-HNC10AA309

U3 HNC10AA309	ID FAN A AUXILIARY LUBE OIL PUMP PRESSURE INDICATOR ISOLATION VALVE
	RAT-U3-3553-VLV-HNC10AA310
U3 HNC10AA310	ID FAN A AUXILIARY LUBE OIL PUMP PRESSURE SWITCH ISOLATION VALVE
	RAT-U3-3553-VLV-HNC10AA311
U3 HNC10AA311	ID FAN A LUBE OIL DUPLEX FILTER DIFFERENTIAL PRESSURE SWITCH INLET ISOLATION VALVE
	RAT-U3-3553-VLV-HNC10AA312
U3 HNC10AA312	ID FAN A LUBE OIL DUPLEX FILTER DIFFERENTIAL PRESSURE SWITCH OUTLET ISOLATION VALVE
	RAT-U3-3553-VLV-HNC10AA313
U3 HNC10AA313	ID FAN A LUBE OIL SYSTEM OUTLET PRESSURE SWITCH ISOLATION VALVE
	RAT-U3-3553-VLV-HNC10AA314
U3 HNC10AA314	ID FAN A LUBE OIL SYSTEM OUTLET PRESSURE INDICATOR ISOLATION VALVE
	RAT-U3-3553-VLV-HNC10AA401
U3 HNC10AA401	ID FAN A LUBE OIL TANK DRAIN VALVE
	RAT-U3-3554
	U3 ID FAN B LUBRICATION SYSTEM
	RAT-U3-3554-CLR
	U3 ID FAN B LUBRICATION SYSTEM - COOLER
	RAT-U3-3554-CLR-HNC20AN002
U3 HNC20AN002	ID FAN B LUBE OIL MAIN AIR BLAST OIL COOLER
	RAT-U3-3554-CLR-HNC20AN003
U3 HNC20AN003	ID FAN B LUBE OIL AUXILIARY AIR BLAST OIL COOLER
	RAT-U3-3554-FLO
	U3 ID FAN B LUBRICATION SYSTEM - FLOW GLASS
	RAT-U3-3554-FLO-HNC20CF001
U3 HNC20CF001	ID FAN B DRIVE END BEARING LUBE OIL FLOW GLASS
	RAT-U3-3554-FLO-HNC20CF002
U3 HNC20CF002	ID FAN B NON DRIVE END BEARING LUBE OIL FLOW GLASS
	RAT-U3-3554-FLT
	U3 ID FAN B LUBRICATION SYSTEM - FILTER
	RAT-U3-3554-FLT-HNC20AT001
U3 HNC20AT001	ID FAN B LUBE OIL DUPLEX FILTER
	RAT-U3-3554-HTR
	U3 ID FAN B LUBRICATION SYSTEM - HEATER
	RAT-U3-3554-HTR-HNC20AE002
U3 HNC20AE002	ID FAN B LUBE OIL MAIN PUMP MOTOR ANTI COND HEATER
	RAT-U3-3554-HTR-HNC20AE003
U3 HNC20AE003	ID FAN B LUBE OIL AUX PUMP MOTOR ANTI COND HEATER
	RAT-U3-3554-HTR-HNC20AH001
U3 HNC20AH001	ID FAN B LUBE OIL TANK IMMERSION HEATER 1
	RAT-U3-3554-HTR-HNC20AH002
U3 HNC20AH002	ID FAN B LUBE OIL TANK IMMERSION HEATER 2
	RAT-U3-3554-HTR-HNC20AN002
U3 HNC20AN002	ID FAN B LUBE OIL MAIN AIR BLAST OIL COOLER ANTI COND HEATER
	RAT-U3-3554-HTR-HNC20AN003

U3 HNC20AN003 ID FAN B LUBE OIL AUX AIR BLAST OIL COOLER ANTI COND HEATER
RAT-U3-3554-LVL
U3 ID FAN B LUBRICATION SYSTEM - LEVEL GLASS
RAT-U3-3554-LVL-HNC20CL001
U3 HNC20CL001 ID FAN B LUBE OIL TANK LEVEL GLASS
RAT-U3-3554-LVS
U3 ID FAN B LUBRICATION SYSTEM - LEVEL SWITCH
RAT-U3-3554-LVS-HNC20CL002
U3 HNC20CL002 ID FAN B LUBE OIL TANK LOW LEVEL SWITCH
RAT-U3-3554-LVS-HNC20CL005
U3 HNC20CL005 ID FAN B LUBE OIL TANK LOW LOW LEVEL SWITCH
RAT-U3-3554-MTR
U3 ID FAN B LUBRICATION SYSTEM - MOTOR
RAT-U3-3554-MTR-HNC20AE002
U3 HNC20AE002 ID FAN B LUBE OIL MAIN PUMP MOTOR
RAT-U3-3554-MTR-HNC20AE003
U3 HNC20AE003 ID FAN B LUBE OIL AUXILIARY PUMP MOTOR
RAT-U3-3554-ORI
U3 ID FAN B LUBRICATION SYSTEM - ORIFICE
RAT-U3-3554-ORI-HNC20BP001
U3 HNC20BP001 ID FAN B NON DRIVE END BEARING ORIFICE PLATE
RAT-U3-3554-ORI-HNC20BP002
U3 HNC20BP002 ID FAN B DRIVE END BEARING ORIFICE PLATE
RAT-U3-3554-PGS
U3 ID FAN B LUBRICATION SYSTEM - PRESSURE GAUGE
RAT-U3-3554-PGS-HNC20CP004
U3 HNC20CP004 ID FAN B MAIN LUBE OIL PUMP PRESSURE INDICATOR
RAT-U3-3554-PGS-HNC20CP005
U3 HNC20CP005 ID FAN B AUXILIARY LUBE OIL PUMP PRESSURE INDICATOR
RAT-U3-3554-PGS-HNC20CP006
U3 HNC20CP006 ID FAN B LUBE OIL TANK OUTPUT PRESSURE INDICATOR
RAT-U3-3554-PGS-HNC20CP010
U3 HNC20CP010 ID FAN B DRIVE END BEARING LUBE OIL PRESSURE INDICATOR
RAT-U3-3554-PGS-HNC20CP013
U3 HNC20CP013 ID FAN B NON DRIVE END BEARING LUBE OIL PRESSURE INDICATOR
RAT-U3-3554-PMP
U3 ID FAN B LUBRICATION SYSTEM - PUMP
RAT-U3-3554-PMP-HNC20AP002
U3 HNC20AP002 ID FAN B LUBE OIL MAIN PUMP
RAT-U3-3554-PMP-HNC20AP003
U3 HNC20AP003 ID FAN B LUBE OIL AUXILIARY PUMP
RAT-U3-3554-PSW
U3 ID FAN B LUBRICATION SYSTEM - PRESSURE SWITCH
RAT-U3-3554-PSW-HNC20CP001

U3 HNC20CP001	ID FAN B MAIN LUBE OIL PUMP PRESSURE SWITCH
	RAT-U3-3554-PSW-HNC20CP002
U3 HNC20CP002	ID FAN B AUXILIARY LUBE OIL PUMP PRESSURE SWITCH
	RAT-U3-3554-PSW-HNC20CP003
U3 HNC20CP003	ID FAN B LUBE OIL TANK OUTPUT PRESSURE SWITCH
	RAT-U3-3554-PSW-HNC20CP007
U3 HNC20CP007	ID FAN B LUBE OIL DUPLEX FILTER DIFFERENTIAL PRESSURE SWITCH
	RAT-U3-3554-PSW-HNC20CP008
U3 HNC20CP008	ID FAN B DRIVE END BEARING LUBE OIL LOW PRESSURE SWITCH
	RAT-U3-3554-PSW-HNC20CP009
U3 HNC20CP009	ID FAN B DRIVE END BEARING LUBE OIL LOW LOW PRESSURE SWITCH
	RAT-U3-3554-PSW-HNC20CP011
U3 HNC20CP011	ID FAN B NON DRIVE END BEARING LUBE OIL LOW PRESSURE SWITCH
	RAT-U3-3554-PSW-HNC20CP012
U3 HNC20CP012	ID FAN B NON DRIVE END BEARING LUBE OIL LOW LOW PRESSURE SWITCH
	RAT-U3-3554-PWK
	U3 ID FAN B LUBRICATION SYSTEM - PIPEWORK
	RAT-U3-3554-PWK-B-LUBOIL
	U3 ID FAN B LUBE OIL PIPEWORK
	RAT-U3-3554-RTD
	U3 ID FAN B LUBRICATION SYSTEM - RESISTIVE THERMAL DEVICE
	RAT-U3-3554-RTD-HNC20CT015
U3 HNC20CT015	ID FAN B LUBE OIL TANK TEMPERATURE ELEMENT 1
	RAT-U3-3554-RTD-HNC20CT016
U3 HNC20CT016	ID FAN B LUBE OIL TANK TEMPERATURE ELEMENT 2
	RAT-U3-3554-RTD-HNC20CT017
U3 HNC20CT017	ID FAN B DRIVE END BEARING TEMPERATURE ELEMENT
	RAT-U3-3554-RTD-HNC20CT018
U3 HNC20CT018	ID FAN B NON DRIVE END BEARING TEMPERATURE ELEMENT
	RAT-U3-3554-SWT
	U3 ID FAN B LUBRICATION SYSTEM - SWITCH
	RAT-U3-3554-SWT-HNC20AE002
U3 HNC20AE002	ID FAN B LUBE OIL MAIN PUMP MOTOR 415V CONTACTOR
	RAT-U3-3554-SWT-HNC20AE003
U3 HNC20AE003	ID FAN B LUBE OIL AUX PUMP MOTOR 415V CONTACTOR
	RAT-U3-3554-SWT-HNC20AH001
U3 HNC20AH001	ID FAN B LUBE OIL TANK IMMERSION HEATER 1 415V CONTACTOR
	RAT-U3-3554-SWT-HNC20AH002
U3 HNC20AH002	ID FAN B LUBE OIL TANK IMMERSION HEATER 2 415V CONTACTOR
	RAT-U3-3554-SWT-HNC20AN002
U3 HNC20AN002	ID FAN B LUBE OIL MAIN AIR BLAST OIL COOLER 415V CONTACTOR
	RAT-U3-3554-SWT-HNC20AN003
U3 HNC20AN003	ID FAN B LUBE OIL AUX AIR BLAST OIL COOLER 415V CONTACTOR
	RAT-U3-3554-SWX

U3 ID FAN B LUBRICATION SYSTEM - INDICATOR
RAT-U3-3554-SWX-HNC20CT024
U3 HNC20CT024 ID FAN B LUBE OIL TANK OUTPUT TEMPERATURE ALARM SWITCH
RAT-U3-3554-TNK
U3 ID FAN B LUBRICATION SYSTEM - TANK
RAT-U3-3554-TNK-HNC20BB001
U3 HNC20BB001 ID FAN B LUBE OIL TANK
RAT-U3-3554-TXS
U3 ID FAN B LUBRICATION SYSTEM - TRANSMITTER
RAT-U3-3554-TXS-HNC20CT015
U3 HNC20CT015 ID FAN B LUBE OIL TANK TEMPERATURE TRANSMITTER 1
RAT-U3-3554-TXS-HNC20CT016
U3 HNC20CT016 ID FAN B LUBE OIL TANK TEMPERATURE TRANSMITTER 2
RAT-U3-3554-VLV
U3 ID FAN B LUBRICATION SYSTEM - VALVE
RAT-U3-3554-VLV-HNC20AA001
U3 HNC20AA001 ID FAN B MAIN LUBE OIL PUMP INLET NON RETURN VALVE
RAT-U3-3554-VLV-HNC20AA002
U3 HNC20AA002 ID FAN B MAIN LUBE OIL PUMP OUTLET NON RETURN VALVE
RAT-U3-3554-VLV-HNC20AA003
U3 HNC20AA003 ID FAN B AUXILIARY LUBE OIL PUMP INLET NON RETURN VALVE
RAT-U3-3554-VLV-HNC20AA004
U3 HNC20AA004 ID FAN B AUXILIARY LUBE OIL PUMP OUTLET NON RETURN VALVE
RAT-U3-3554-VLV-HNC20AA005
U3 HNC20AA005 ID FAN B LUBE OIL MAIN AIR BLAST COOLER INLET ISOLATION VALVE
RAT-U3-3554-VLV-HNC20AA006
U3 HNC20AA006 ID FAN B LUBE OIL MAIN AIR BLAST COOLER OUTLET ISOLATION VALVE
RAT-U3-3554-VLV-HNC20AA007
U3 HNC20AA007 ID FAN B LUBE OIL AUXILIARY AIR BLAST COOLER INLET ISOLATION VALVE
RAT-U3-3554-VLV-HNC20AA008
U3 HNC20AA008 ID FAN B LUBE OIL AUXILIARY AIR BLAST COOLER OUTLET ISOLATION VALVE
RAT-U3-3554-VLV-HNC20AA009
U3 HNC20AA009 ID FAN B LUBE OIL SYSTEM TEMPERATURE CONTROL VALVE
RAT-U3-3554-VLV-HNC20AA010
U3 HNC20AA010 ID FAN B LUBE OIL SYSTEM OUTLET NON RETURN VALVE
RAT-U3-3554-VLV-HNC20AA011
U3 HNC20AA011 ID FAN B LUBE OIL SYSTEM ISOLATION VALVE
RAT-U3-3554-VLV-HNC20AA012
U3 HNC20AA012 ID FAN B DRIVE END BEARING LUBE OIL NEEDLE VALVE
RAT-U3-3554-VLV-HNC20AA013
U3 HNC20AA013 ID FAN B NON DRIVE END BEARING LUBE OIL NEEDLE VALVE
RAT-U3-3554-VLV-HNC20AA251
U3 HNC20AA251 ID FAN B LUBE OIL PRESSURE RELIEF VALVE
RAT-U3-3554-VLV-HNC20AA301

U3 HNC20AA301	ID FAN B DRIVE END BEARING LUBE OIL PRESSURE INDICATOR ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA302
U3 HNC20AA302	ID FAN B DRIVE END BEARING LUBE OIL LOW PRESSURE SWITCH ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA303
U3 HNC20AA303	ID FAN B DRIVE END BEARING LUBE OIL LOW LOW PRESSURE SWITCH ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA304
U3 HNC20AA304	ID FAN B NON DRIVE END BEARING LUBE OIL PRESSURE INDICATOR ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA305
U3 HNC20AA305	ID FAN B NON DRIVE END BEARING LUBE OIL LOW PRESSURE SWITCH ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA306
U3 HNC20AA306	ID FAN B NON DRIVE END BEARING LUBE OIL LOW LOW PRESSURE SWITCH ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA307
U3 HNC20AA307	ID FAN B MAIN LUBE OIL PUMP PRESSURE INDICATOR ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA308
U3 HNC20AA308	ID FAN B MAIN LUBE OIL PUMP PRESSURE SWITCH ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA309
U3 HNC20AA309	ID FAN B AUXILIARY LUBE OIL PUMP PRESSURE INDICATOR ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA310
U3 HNC20AA310	ID FAN B AUXILIARY LUBE OIL PUMP PRESSURE SWITCH ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA311
U3 HNC20AA311	ID FAN B LUBE OIL DUPLEX FILTER DIFFERENTIAL PRESSURE SWITCH INLET ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA312
U3 HNC20AA312	ID FAN B LUBE OIL DUPLEX FILTER DIFFERENTIAL PRESSURE SWITCH OUTLET ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA313
U3 HNC20AA313	ID FAN B LUBE OIL SYSTEM OUTLET PRESSURE SWITCH ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA314
U3 HNC20AA314	ID FAN B LUBE OIL SYSTEM OUTLET PRESSURE INDICATOR ISOLATION VALVE
	RAT-U3-3554-VLV-HNC20AA401
U3 HNC20AA401	ID FAN B LUBE OIL TANK DRAIN VALVE
	RAT-U3-3555
	U3 ID FAN VSD SYSTEM
	RAT-U3-3555-CLR
	U3 ID FAN VSD SYSTEM - COOLER
	RAT-U3-3555-CLR-HTEXCHR-A
	U3 ID FAN A VSD HEAT EXCHANGER
	RAT-U3-3555-CLR-HTEXCHR-B
	U3 ID FAN B VSD HEAT EXCHANGER
	RAT-U3-3555-FLT
	U3 ID FAN VSD SYSTEM - FILTER
	RAT-U3-3555-FLT-VSDA
	U3 ID FAN A VSD PRIMARY COOLANT FILTERS
	RAT-U3-3555-FLT-VSDB
	U3 ID FAN B VSD PRIMARY COOLANT FILTERS
	RAT-U3-3555-HTR

U3 ID FAN VSD SYSTEM - HEATER
RAT-U3-3555-HTR-HNC10AH101
U3 HNC10AH101 ID FAN A VSD CABINET SPACE HEATER
RAT-U3-3555-HTR-HNC20AH101
U3 HNC20AH101 ID FAN B VSD CABINET SPACE HEATER
RAT-U3-3555-INV
U3 ID FAN VSD SYSTEM - VARIABLE SPEED DRIVE
RAT-U3-3555-INV-HNC10GU001
U3 HNC10GU001 VSD FOR ID FAN A
RAT-U3-3555-INV-HNC20GU001
U3 HNC20GU001 VSD FOR ID FAN B
RAT-U3-3555-PMP
U3 ID FAN VSD SYSTEM - PUMP
RAT-U3-3555-PMP-VSDAP1
U3 ID FAN A VSD PRIMARY COOLANT PUMP 1
RAT-U3-3555-PMP-VSDAP2
U3 ID FAN A VSD PRIMARY COOLANT PUMP 2
RAT-U3-3555-PMP-VSDBP1
U3 ID FAN B VSD PRIMARY COOLANT PUMP 1
RAT-U3-3555-PMP-VSDBP2
U3 ID FAN B VSD PRIMARY COOLANT PUMP 2
RAT-U3-3555-PNL
U3 ID FAN VSD SYSTEM - CONTROL PANEL
RAT-U3-3555-PNL-VSDA01
U3 ID FAN A VSD INCOMING LINE CABINET
RAT-U3-3555-PNL-VSDA02
U3 ID FAN A VSD INPUT CONTACTOR CABINET
RAT-U3-3555-PNL-VSDA03
U3 ID FAN A VSD LINE REACTOR CABINET
RAT-U3-3555-PNL-VSDA04
U3 ID FAN A VSD INPUT & OUTPUT - HV CABLE CONNECTIONS CABINET
RAT-U3-3555-PNL-VSDA05
U3 ID FAN A VSD INVERTER / RECTIFIER CABINET
RAT-U3-3555-PNL-VSDA06
U3 ID FAN A VSD MOTOR FILTER CAPACITORS CABINET
RAT-U3-3555-PNL-VSDA07
U3 ID FAN A VSD LINE FILTER CAPACITORS CABINET
RAT-U3-3555-PNL-VSDA08
U3 ID FAN A VSD CHOKE CABINET
RAT-U3-3555-PNL-VSDA09
U3 ID FAN A VSD PUMPING CABINET
RAT-U3-3555-PNL-VSDA10
U3 ID FAN A VSD OUTPUT EARTHING / SWITCH CABINET
RAT-U3-3555-PNL-VSDB01

U3 ID FAN B VSD INCOMING LINE CABINET
RAT-U3-3555-PNL-VSDB02
U3 ID FAN B VSD INPUT CONTACTOR CABINET
RAT-U3-3555-PNL-VSDB03
U3 ID FAN B VSD LINE REACTOR CABINET
RAT-U3-3555-PNL-VSDB04
U3 ID FAN B VSD INPUT & OUTPUT - HV CABLE CONNECTIONS CABINET
RAT-U3-3555-PNL-VSDB05
U3 ID FAN B VSD INVERTER / RECTIFIER CABINET
RAT-U3-3555-PNL-VSDB06
U3 ID FAN B VSD MOTOR FILTER CAPACITORS CABINET
RAT-U3-3555-PNL-VSDB07
U3 ID FAN B VSD LINE FILTER CAPACITORS CABINET
RAT-U3-3555-PNL-VSDB08
U3 ID FAN B VSD CHOKE CABINET
RAT-U3-3555-PNL-VSDB09
U3 ID FAN B VSD PUMPING CABINET
RAT-U3-3555-PNL-VSDB10
U3 ID FAN B VSD OUTPUT EARTHING / SWITCH CABINET
RAT-U3-3555-RSR
U3 ID FAN VSD SYSTEM - RESERVOIR
RAT-U3-3555-RSR-VSDA
U3 ID FAN A VSD PRIMARY COOLANT RESERVOIR
RAT-U3-3555-RSR-VSDB
U3 ID FAN B VSD PRIMARY COOLANT RESERVOIR
RAT-U3-3555-SRN
U3 ID FAN VSD SYSTEM - STRAINER
RAT-U3-3555-SRN-VSDA
U3 ID FAN A VSD PRIMARY COOLANT STRAINER
RAT-U3-3555-SRN-VSDB
U3 ID FAN B VSD PRIMARY COOLANT STRAINER
RAT-U3-3555-VLV
U3 ID FAN VSD SYSTEM - VALVE
RAT-U3-3555-VLV-PCSAVLV
U3 ID FAN A VSD PRIMARY COOLANT VALVES
RAT-U3-3555-VLV-PCSBVLV
U3 ID FAN B VSD PRIMARY COOLANT VALVES
RAT-U3-3556
U3 ID FAN VSD SECONDARY COOLING WATER SYSTEM
RAT-U3-3556-HTR
U3 ID FAN VSD SECONDARY COOLING WATER SYSTEM - HEATER
RAT-U3-3556-HTR-PGB10AH101
U3 PGB10AH101 ID FAN VSD A SIDE CW HEAT EXCHANGER TRACE HEATING
RAT-U3-3556-HTR-PGB20AH101

U3 PGB20AH101 ID FAN VSD B SIDE CW HEAT EXCHANGER TRACE HEATING
RAT-U3-3556-INS
U3 ID FAN VSD SECONDARY COOLING WATER SYSTEM - INSTRUMENT
RAT-U3-3556-INS-PGB10CF002
U3 PGB10CF002 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER OUTLET FLOW INDICATOR
RAT-U3-3556-INS-PGB20CF002
U3 PGB20CF002 ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER OUTLET FLOW INDICATOR
RAT-U3-3556-ORI
U3 ID FAN VSD SECONDARY COOLING WATER SYSTEM - ORIFICE
RAT-U3-3556-ORI-PGB10BP001
U3 PGB10BP001 ID FAN A VSD PLATE HEAT EXCHANGER SECONDARY COOLING WATER FLOW RESTRICTION ORIFICE
RAT-U3-3556-ORI-PGB20BP001
U3 PGB20BP001 ID FAN B VSD PLATE HEAT EXCHANGER SECONDARY COOLING WATER FLOW RESTRICTION ORIFICE
RAT-U3-3556-PWK
U3 ID FAN VSD SECONDARY COOLING WATER SYSTEM - PIPEWORK
RAT-U3-3556-PWK-PGB10BR101
U3 PGB10BR101 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER INLET HOSE
RAT-U3-3556-PWK-PGB10BR102
U3 PGB10BR102 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER OUTLET HOSE
RAT-U3-3556-PWK-PGB20BR101
U3 PGB20BR101 ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER INLET HOSE
RAT-U3-3556-PWK-PGB20BR102
U3 PGB20BR102 ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER OUTLET HOSE
RAT-U3-3556-RTD
U3 ID FAN VSD SECONDARY COOLING WATER SYSTEM - RESISTIVE THERMAL DEVICE
RAT-U3-3556-RTD-PGB10CT101
U3 PGB10CT101 ID FAN VSD COOLING WATER VALVE STATION TO HEAT EXCHANGER A TRACE HEATING TEMPERATURE ELEMENT
RAT-U3-3556-RTD-PGB20CT101
U3 PGB20CT101 ID FAN VSD COOLING WATER VALVE STATION TO HEAT EXCHANGER B TRACE HEATING TEMPERATURE ELEMENT
RAT-U3-3556-RTD-PGB20CT105
U3 PGB20CT105 ID FAN VSD COOLING WATER VALVE STATION TRACE HEATING TEMPERATURE ELEMENT
RAT-U3-3556-TXS
U3 ID FAN VSD SECONDARY COOLING WATER SYSTEM - TRANSMITTER
RAT-U3-3556-TXS-PGB10CF001
U3 PGB10CF001 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER OUTLET FLOW TRANSMITTER
RAT-U3-3556-TXS-PGB20CF001
U3 PGB20CF001 ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER OUTLET FLOW TRANSMITTER
RAT-U3-3556-VLV
U3 ID FAN VSD SECONDARY COOLING WATER SYSTEM - VALVE
RAT-U3-3556-VLV-PGB01AA031
U3 PGB01AA031 ID FAN VSD COOLING WATER SUPPLY HEADER 1 ISOLATION VALVE
RAT-U3-3556-VLV-PGB01AA032
U3 PGB01AA032 ID FAN VSD COOLING WATER SUPPLY HEADER 2 ISOLATION VALVE

RAT-U3-3556-VLV-PGB01AA033
U3 PGB01AA033 ID FAN VSD COOLING WATER RETURN HEADER 1 ISOLATION VALVE
RAT-U3-3556-VLV-PGB01AA034
U3 PGB01AA034 ID FAN VSD COOLING WATER RETURN HEADER 2 ISOLATION VALVE
RAT-U3-3556-VLV-PGB01AA318
U3 PGB01AA318 ID FAN VSD HEAT EXCHANGER COOLING WATER SUPPLY PRESSURE GAUGE ISOLATION VALVE
RAT-U3-3556-VLV-PGB01AA411
U3 PGB01AA411 ID FAN VSD COOLING WATER SUPPLY HEADER DRAIN VALVE
RAT-U3-3556-VLV-PGB01AA412
U3 PGB01AA412 ID FAN VSD COOLING WATER RETURN HEADER DRAIN VALVE
RAT-U3-3556-VLV-PGB10AA001
U3 PGB10AA001 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER INLET ISOLATION VALVE
RAT-U3-3556-VLV-PGB10AA002
U3 PGB10AA002 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER OUTLET ISOLATION VALVE
RAT-U3-3556-VLV-PGB10AA003
U3 PGB10AA003 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER OUTLET NON RETURN VALVE
RAT-U3-3556-VLV-PGB10AA004
U3 PGB10AA004 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER INLET ISOLATION VALVE FOR FLUSHING / CLEANING
RAT-U3-3556-VLV-PGB10AA005
U3 PGB10AA005 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER INLET NON RETURN VALVE FOR FLUSHING / CLEANING
RAT-U3-3556-VLV-PGB10AA006
U3 PGB10AA006 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER OUTLET DRAIN ISOLATION VALVE FOR FLUSHING / CLEANING
RAT-U3-3556-VLV-PGB10AA101
U3 PGB10AA101 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER INLET ISOLATION VALVE
RAT-U3-3556-VLV-PGB10AA102
U3 PGB10AA102 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER OUTLET ISOLATION VALVE
RAT-U3-3556-VLV-PGB10AA301
U3 PGB10AA301 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER INLET INSTRUMENT ISOLATION VALVE (PRESSURE TEST PORT)
RAT-U3-3556-VLV-PGB10AA302
U3 PGB10AA302 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER OUTLET INSTRUMENT ISOLATION VALVE (PRESSURE TEST PORT)
RAT-U3-3556-VLV-PGB10AA401
U3 PGB10AA401 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER INLET DRAIN ISOLATION VALVE
RAT-U3-3556-VLV-PGB10AA402
U3 PGB10AA402 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER OUTLET DRAIN ISOLATION VALVE
RAT-U3-3556-VLV-PGB10AA501
U3 PGB10AA501 ID FAN VSD A SIDE HEAT EXCHANGER COOLING WATER INLET VENT ISOLATION VALVE
RAT-U3-3556-VLV-PGB20AA001
U3 PGB20AA001 ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER INLET ISOLATION VALVE
RAT-U3-3556-VLV-PGB20AA002
U3 PGB20AA002 ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER OUTLET ISOLATION VALVE
RAT-U3-3556-VLV-PGB20AA003
U3 PGB20AA003 ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER OUTLET NON RETURN VALVE
RAT-U3-3556-VLV-PGB20AA004

U3 PGB20AA004	ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER INLET ISOLATION VALVE FOR FLUSHING / CLEANING
	RAT-U3-3556-VLV-PGB20AA005
U3 PGB20AA005	ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER INLET NON RETURN VALVE FOR FLUSHING / CLEANING
	RAT-U3-3556-VLV-PGB20AA006
U3 PGB20AA006	ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER OUTLET DRAIN ISOLATION VALVE FOR FLUSHING / CLEANING
	RAT-U3-3556-VLV-PGB20AA101
U3 PGB20AA101	ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER INLET ISOLATION VALVE
	RAT-U3-3556-VLV-PGB20AA102
U3 PGB20AA102	ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER OUTLET ISOLATION VALVE
	RAT-U3-3556-VLV-PGB20AA301
U3 PGB20AA301	ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER INLET INSTRUMENT ISOLATION VALVE (PRESSURE TEST PORT)
	RAT-U3-3556-VLV-PGB20AA302
U3 PGB20AA302	ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER OUTLET INSTRUMENT ISOLATION VALVE (PRESSURE TEST PORT)
	RAT-U3-3556-VLV-PGB20AA401
U3 PGB20AA401	ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER INLET DRAIN ISOLATION VALVE
	RAT-U3-3556-VLV-PGB20AA402
U3 PGB20AA402	ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER OUTLET DRAIN ISOLATION VALVE
	RAT-U3-3556-VLV-PGB20AA501
U3 PGB20AA501	ID FAN VSD B SIDE HEAT EXCHANGER COOLING WATER INLET VENT ISOLATION VALVE
	RAT-U3-8411-FBD
	U3 ID FAN A - FUSE BOARD
	RAT-U3-8411-FBD-BJA01GS004
U3 BJA01GS004	ID FAN Q-SUPPLY 110V 10 WAY GENERAL DIST BOARD
	RAT-U3-8411-SWG-BFA10GS001
U3 BFA10GS001	415V ID FAN A AUXILIARY SWITCHBOARD
	RAT-U3-8411-SWT-IS-BC-AXB
U3 BUS COUPLER A-XB 415V SWITCHBOARD INCOMING 415V ISOLATOR	
	RAT-U3-8411-SWT-IS-GSM-AXB
U3 GSM A-XB 415V SWITCHBOARD INCOMING 415V ISOLATOR	
	RAT-U3-8412-FBD
	U3 ID FAN B - FUSE BOARD
	RAT-U3-8412-FBD-BJA01GS002
U3 BJA01GS002	ID FAN 4-WAY LTG & POWER DB
	RAT-U3-8412-SWG-BFA20GS001
U3 BFA20GS001	415V ID FAN B AUXILIARY SWITCHBOARD
	RAT-U3-8412-SWT-IS-BC-BXB
U3 BUS COUPLER 415V SWITCHBOARD INCOMING 415V ISOLATOR	
	RAT-U3-8412-SWT-IS-GSM-BXB
U3 GSM B-XB 415V SWITCHBOARD INCOMING 415V ISOLATOR	

ANEXO XV: AMMONIA PLANT SAP DESIGN

RAT-NU-16
AMMONIA COMMON PLANT
RAT-NU-160
AMMONIA COMMON SYSTEM
RAT-NU-1600
AMMONIA COMMON SYSTEM (SPARE)
RAT-NU-1601
AMMONIA SAFETY SHOWERS
RAT-NU-1601-SHW
AMMONIA SAFETY SHOWERS - SHOWER
RAT-NU-1601-SHW-HSJ01AW001
NU HSJ01AW001 ANHYDROUS AMMONIA STORAGE TANK AREA SAFETY SHOWER 1
RAT-NU-1601-SHW-HSJ01AW002
NU HSJ01AW002 ANHYDROUS AMMONIA STORAGE TANK AREA SAFETY SHOWER 2
RAT-NU-1601-SHW-HSJ01AW003
NU HSJ01AW003 AMMONIA OFFLOADING AREA SAFETY SHOWER 1
RAT-NU-1601-SHW-HSJ01AW004
NU HSJ01AW004 AMMONIA OFFLOADING AREA SAFETY SHOWER 2
RAT-NU-1601-SWT
AMMONIA SAFETY SHOWERS - SWITCH
RAT-NU-1601-SWT-GKB01CF001
NU GKB01CF001 AMMONIA OFFLOADING AREA SAFETY SHOWER 1 INITIATED PROXIMITY SWITCH
RAT-NU-1601-SWT-GKB01CF002
NU GKB01CF002 AMMONIA OFFLOADING AREA SAFETY SHOWER 2 INITIATED PROXIMITY SWITCH
RAT-NU-1601-SWT-GKB01CF003
NU GKB01CF003 ANHYDROUS AMMONIA STORAGE TANK AREA SAFETY SHOWER 1 INITIATED PROXIMITY SWITCH
RAT-NU-1601-SWT-GKB01CF004
NU GKB01CF004 ANHYDROUS AMMONIA STORAGE TANK AREA SAFETY SHOWER 2 INITIATED PROXIMITY SWITCH
RAT-NU-1602
AMMONIA PLANT AREA SUMP
RAT-NU-1602-ESB
AMMONIA PLANT AREA SUMP - ESB
RAT-NU-1602-ESB-HSN01AP001
NU HSN01AP001 AMMONIA PLANT CONTAINED AREA SUMP PUMP MOTOR E-STOP
RAT-NU-1602-ESB-HSN01AP002
NU HSN01AP002 AMMONIA OFFLOADING AREA SUMP PUMP MOTOR E-STOP
RAT-NU-1602-HTR
AMMONIA PLANT AREA SUMP - HEATER
RAT-NU-1602-HTR-HSN01AE001
NU HSN01AE001 AMMONIA PLANT CONTAINED AREA SUMP PUMP MOTOR ANTI CONDENSATION HEATER
RAT-NU-1602-HTR-HSN01AE002
NU HSN01AE002 AMMONIA OFFLOADING AREA SUMP PUMP MOTOR ANTI CONDENSATION HEATER

RAT-NU-1602-LIS
AMMONIA PLANT AREA SUMP - LOCAL ISOLATING SWITCH
RAT-NU-1602-LIS-HSN01GS001
NU HSN01GS001 AMMONIA PLANT CONTAINED AREA SUMP PUMP MOTOR ISOLATOR
RAT-NU-1602-LIS-HSN01GS002
NU HSN01GS002 AMMONIA OFFLOADING AREA SUMP PUMP MOTOR ISOLATOR
RAT-NU-1602-MTR
AMMONIA PLANT AREA SUMP - MOTOR
RAT-NU-1602-MTR-HSN01AE001
NU HSN01AE001 AMMONIA PLANT CONTAINED AREA SUMP PUMP MOTOR
RAT-NU-1602-MTR-HSN01AE002
NU HSN01AE002 AMMONIA OFFLOADING AREA SUMP PUMP MOTOR
RAT-NU-1602-PMP
AMMONIA PLANT AREA SUMP - PUMP
RAT-NU-1602-PMP-HSN01AP001
NU HSN01AP001 AMMONIA PLANT CONTAINED AREA SUMP PUMP
RAT-NU-1602-PMP-HSN01AP002
NU HSN01AP002 AMMONIA OFFLOADING AREA SUMP PUMP
RAT-NU-1602-SEN
AMMONIA PLANT AREA SUMP - SENSOR
RAT-NU-1602-SEN-HSN01CM001
NU HSN01CM001 AMMONIA PLANT CONTAINED AREA SUMP PUMP MOTOR MOISTURE SENSOR
RAT-NU-1602-SEN-HSN01CM002
NU HSN01CM002 AMMONIA OFFLOADING AREA SUMP PUMP MOTOR MOISTURE SENSOR
RAT-NU-1602-SWT
AMMONIA PLANT AREA SUMP - SWITCH
RAT-NU-1602-SWT-HSN01CT101
NU HSN01CT101 AMMONIA PLANT CONTAINED AREA SUMP PUMP MOTOR BI-METALLIC SWITCH 2
RAT-NU-1602-SWT-HSN01CT102
NU HSN01CT102 AMMONIA OFFLOADING AREA SUMP PUMP MOTOR BI-METALLIC SWITCH 2
RAT-NU-1602-TCO
AMMONIA PLANT AREA SUMP - THERMOCOUPLE
RAT-NU-1602-TCO-HSJ01CT107
NU HSJ01CT107 OFFLOADING AREA SUMP DUTY PUMP THERMISTOR
RAT-NU-1602-TCO-HSJ01CT108
NU HSJ01CT108 OFFLOADING AREA SUMP STANDBY MOTOR THERMISTOR
RAT-NU-1602-TCO-HSN01CT001
NU HSN01CT001 AMMONIA PLANT CONTAINED AREA SUMP PUMP MOTOR THERMISTOR
RAT-NU-1602-TCO-HSN01CT002
NU HSN01CT002 AMMONIA OFFLOADING AREA SUMP PUMP MOTOR THERMISTOR
RAT-NU-1602-TXS
AMMONIA PLANT AREA SUMP - TRANSMITTER
RAT-NU-1602-TXS-HSN01CQ001
NU HSN01CQ001 CONTAINED AREA SUMP CONDUCTIVITY TRANSMITTER 1

RAT-NU-1602-TXS-HSN01CQ002
NU HSN01CQ002 CONTAINED AREA SUMP CONDUCTIVITY TRANSMITTER 2
RAT-NU-1603
AMMONIA PLANT AIR SUPPLY / RECEIVER SYSTEM
RAT-NU-1603-APN
AMMONIA PLANT AIR SUPPLY / RECEIVER SYSTEM - PNEUMATIC ACTUATOR
RAT-NU-1603-APN-QEB01AA146
NU QEB01AA146 AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER SIS INSTRUMENT AIR SHUT-OFF VALVE 1 ACTUATOR
RAT-NU-1603-APN-QEB01AA147
NU QEB01AA147 AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER SIS INSTRUMENT AIR SHUT-OFF VALVE 2 ACTUATOR
RAT-NU-1603-PGS
AMMONIA PLANT AIR SUPPLY / RECEIVER SYSTEM - PRESSURE GAUGE
RAT-NU-1603-PGS-QEB01CP010
NU QEB01CP010 AMMONIA PLANT INSTRUMENT AIR RECEIVER A PRESSURE INDICATOR
RAT-NU-1603-PGS-QEB01CP011
NU QEB01CP011 AMMONIA PLANT INSTRUMENT AIR RECEIVER B PRESSURE INDICATOR
RAT-NU-1603-RCV
AMMONIA PLANT AIR SUPPLY / RECEIVER SYSTEM - RECEIVER
RAT-NU-1603-RCV-QEB01BB001
NU QEB01BB001 AMMONIA PLANT INSTRUMENT AIR RECEIVER A
RAT-NU-1603-RCV-QEB01BB002
NU QEB01BB002 AMMONIA PLANT INSTRUMENT AIR RECEIVER B
RAT-NU-1603-SOL
AMMONIA PLANT AIR SUPPLY / RECEIVER SYSTEM - SOLENOID
RAT-NU-1603-SOL-QEB01AA146
NU QEB01AA146 AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER SIS INSTRUMENT AIR SHUT-OFF VALVE 1 SOLENOID
RAT-NU-1603-SOL-QEB01AA147
NU QEB01AA147 AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER SIS INSTRUMENT AIR SHUT-OFF VALVE 2 SOLENOID
RAT-NU-1603-SWX
AMMONIA PLANT AIR SUPPLY / RECEIVER SYSTEM - AUXILIARY SWITCH
RAT-NU-1603-SWX-QEB01CG146
NU QEB01CG146 AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER SIS INSTRUMENT AIR SHUT-OFF VALVE 1 LIMIT SWITCH
RAT-NU-1603-SWX-QEB01CG147
NU QEB01CG147 AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER SIS INSTRUMENT AIR SHUT-OFF VALVE 2 LIMIT SWITCH
RAT-NU-1603-TXS
AMMONIA PLANT AIR SUPPLY / RECEIVER SYSTEM - TRANSMITTER
RAT-NU-1603-TXS-QEB01CP012
NU QEB01CP012 AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER PRESSURE TRANSMITTER
RAT-NU-1603-VLV
AMMONIA PLANT AIR SUPPLY / RECEIVER SYSTEM - VALVE
RAT-NU-1603-VLV-QEB01AA100
NU QEB01AA100 AMMONIA PLANT INSTRUMENT AIR SUPPLY ISOLATION VALVE 1 (AT TERMINAL POINT)
RAT-NU-1603-VLV-QEB01AA101

NU QEB01AA101	AMMONIA PLANT INSTRUMENT AIR SUPPLY ISOLATION VALVE 2 (NEAR BUND WALL)
	RAT-NU-1603-VLV-QEB01AA106
NU QEB01AA106	AMMONIA PLANT INSTRUMENT AIR RECEIVER A AIR INLET ISOLATION VALVE
	RAT-NU-1603-VLV-QEB01AA107
NU QEB01AA107	AMMONIA PLANT INSTRUMENT AIR RECEIVER B AIR INLET ISOLATION VALVE
	RAT-NU-1603-VLV-QEB01AA108
NU QEB01AA108	AMMONIA PLANT INSTRUMENT AIR RECEIVER A AIR OUTLET ISOLATION VALVE
	RAT-NU-1603-VLV-QEB01AA109
NU QEB01AA109	AMMONIA PLANT INSTRUMENT AIR RECEIVER B AIR OUTLET ISOLATION VALVE
	RAT-NU-1603-VLV-QEB01AA144
NU QEB01AA144	AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER SIS INSTRUMENT AIR SHUT-OFF VALVE 2 AIR SUPPLY ISOLATION VALVE
	RAT-NU-1603-VLV-QEB01AA145
NU QEB01AA145	AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER SIS INSTRUMENT AIR SHUT-OFF VALVE 1 AIR SUPPLY ISOLATION VALVE
	RAT-NU-1603-VLV-QEB01AA146
NU QEB01AA146	AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER SIS INSTRUMENT AIR SHUT-OFF VALVE 1
	RAT-NU-1603-VLV-QEB01AA147
NU QEB01AA147	AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER SIS INSTRUMENT AIR SHUT-OFF VALVE 2
	RAT-NU-1603-VLV-QEB01AA221
NU QEB01AA221	AMMONIA PLANT INSTRUMENT AIR RECEIVER A SAFETY RELIEF VALVE
	RAT-NU-1603-VLV-QEB01AA222
NU QEB01AA222	AMMONIA PLANT INSTRUMENT AIR RECEIVER B SAFETY RELIEF VALVE
	RAT-NU-1603-VLV-QEB01AA310
NU QEB01AA310	AMMONIA PLANT INSTRUMENT AIR RECEIVER A PRESSURE INDICATOR ISOLATION VALVE
	RAT-NU-1603-VLV-QEB01AA311
NU QEB01AA311	AMMONIA PLANT INSTRUMENT AIR RECEIVER B PRESSURE INDICATOR ISOLATION VALVE
	RAT-NU-1603-VLV-QEB01AA312
NU QEB01AA312	AMMONIA PLANT INSTRUMENT AIR SUPPLY HEADER PRESSURE TRANSMITTER ISOLATION VALVE
	RAT-NU-1603-VLV-QEB01AA401
NU QEB01AA401	AMMONIA PLANT INSTRUMENT AIR SUPPLY LINE DRAIN ISOLATION VALVE
	RAT-NU-1603-VLV-QEB01AA402
NU QEB01AA402	AMMONIA PLANT INSTRUMENT AIR RECEIVER A DRAIN VALVE
	RAT-NU-1603-VLV-QEB01AA403
NU QEB01AA403	AMMONIA PLANT INSTRUMENT AIR RECEIVER B DRAIN VALVE
	RAT-NU-1604
	AMMONIA PLANT SWITCHROOM AND ELECTRICAL AUXILIARIES
	RAT-NU-1604-CLR
	AMMONIA PLANT SWITCHROOM - COOLER
	RAT-NU-1604-CLR-SAC01AH001
NU SAC01AH001	AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 1
	RAT-NU-1604-CLR-SAC01AH002
NU SAC01AH002	AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 2
	RAT-NU-1604-CLR-SAC01AH003
NU SAC01AH003	AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 3
	RAT-NU-1604-CLR-SAC01AH004

NU SAC01AH004	AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 4
	RAT-NU-1604-CLR-SAC01AH005
NU SAC01AH005	AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 5
	RAT-NU-1604-CLR-SAC01AH006
NU SAC01AH006	AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 6
	RAT-NU-1604-CLR-SAC01AH007
NU SAC01AH007	AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 7
	RAT-NU-1604-DMP
	AMMONIA PLANT SWITCHROOM - DAMPER
	RAT-NU-1604-DMP-SAC01AA001
NU SAC01AA001	AMMONIA PLANT SWITCHROOM GRP HOUSING MOTORISED DAMPER 1
	RAT-NU-1604-DMP-SAC01AA002
NU SAC01AA002	AMMONIA PLANT SWITCHROOM GRP HOUSING MOTORISED DAMPER 2
	RAT-NU-1604-FAN
	AMMONIA PLANT SWITCHROOM - FAN
	RAT-NU-1604-FAN-SAC01AN001
NU SAC01AN001	AMMONIA PLANT SWITCHROOM GRP HOUSING EXTRACTION FAN 1
	RAT-NU-1604-FAN-SAC01AN002
NU SAC01AN002	AMMONIA PLANT SWITCHROOM GRP HOUSING EXTRACTION FAN 2
	RAT-NU-1604-FBD
	AMMONIA PLANT SWITCHROOM - FUSEBOARD
	RAT-NU-1604-FBD-BLA01GS001
NU BLA01GS001	SMALL POWER & LIGHTING TP&N DISTRIBUTION BOARD 1
	RAT-NU-1604-FBD-HSJ01GP001
NU HSJ01GP001	AMMONIA PLANT EXTERNAL LIGHTING DISTRIBUTION PILLAR
	RAT-NU-1604-FBD-HSJ01GP002
NU HSJ01GP002	FIRE SUPPRESSION BOTTLE STORE LIGHTING AND SMALL POWER SP&N DISTRIBUTION BOARD
	RAT-NU-1604-HTR
	AMMONIA PLANT SWITCHROOM - HEATER
	RAT-NU-1604-HTR-SAC01AH008
NU SAC01AH008	AMMONIA PLANT SWITCHROOM GRP HOUSING 3KW FAN HEATER NO.1
	RAT-NU-1604-HTR-SAC01AH009
NU SAC01AH009	AMMONIA PLANT SWITCHROOM GRP HOUSING 3KW FAN HEATER NO.2
	RAT-NU-1604-HTR-SAC01AH010
NU SAC01AH010	AMMONIA PLANT SWITCHROOM GRP HOUSING 3KW FAN HEATER NO.3
	RAT-NU-1604-INS
	AMMONIA PLANT SWITCHROOM - INSTRUMENT
	RAT-NU-1604-INS-SAC01CT001
NU SAC01CT001	AMMONIA PLANT SWITCHROOM GRP HOUSING 3KW FAN HEATER NO.1 FROST THERMOSTAT
	RAT-NU-1604-INS-SAC01CT002
NU SAC01CT002	AMMONIA PLANT SWITCHROOM GRP HOUSING 3KW FAN HEATER NO.2 FROST THERMOSTAT
	RAT-NU-1604-INS-SAC01CT003
NU SAC01CT003	AMMONIA PLANT SWITCHROOM GRP HOUSING 3KW FAN HEATER NO.3 FROST THERMOSTAT
	RAT-NU-1604-PLC

AMMONIA PLANT SWITCHROOM - PLC
RAT-NU-1604-PLC-HSJ01EY001
NU HSJ01EY001 AMMONIA PLANT SAFETY SYSTEM PANEL - PLC
RAT-NU-1604-PLC-HSJ01EY002
NU HSJ01EY002 AMMONIA PLANT SIS INTERFACE PANEL
RAT-NU-1604-PLC-HSJ01GK001
NU HSJ01GK001 AMMONIA PLANT CONTROL SYSTEM PANEL (PLC)
RAT-NU-1604-PLC-HSJ01GK002
NU HSJ01GK002 AMMONIA PLANT PLC HMI
RAT-NU-1604-PNL
AMMONIA PLANT SWITCHROOM - CONTROL PANEL
RAT-NU-1604-PNL-SAC01GH001
NU SAC01GH001 AMMONIA PLANT SWITCHROOM GRP HOUSING HVAC CONTROL PANEL
RAT-NU-1604-PNL-SAC01GH002
NU SAC01GH002 AMMONIA PLANT SWITCHROOM GRP HOUSING FAN CONTROL PANEL
RAT-NU-1604-PNL-SGY01GH100
NU SGY01GH100 AMMONIA PLANT SWITCHROOM GRP HOUSING PROTEC FIRE ALARM SYSTEM PANEL
RAT-NU-1604-SWG
AMMONIA PLANT SWITCHROOM - SWITCHGEAR
RAT-NU-1604-SWG-BFA01GS002
NU BFA01GS002 AMMONIA PLANT UPS
RAT-NU-1604-SWG-BFY01GV001
NU BFY01GV001 AMMONIA PLANT SW/BD SECTION 2A LIGHTNING PROTECTION SURGE SUPPRESSOR
RAT-NU-1604-SWG-BFY01GV002
NU BFY01GV002 AMMONIA PLANT SW/BD SECTION 2K LIGHTNING PROTECTION SURGE SUPPRESSOR
RAT-NU-1604-SWT
AMMONIA PLANT SWITCHROOM - SWITCH
RAT-NU-1604-SWT-SAC01GS001
NU SAC01GS001 AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 1 ISOLATOR
RAT-NU-1604-SWT-SAC01GS002
NU SAC01GS002 AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 2 ISOLATOR
RAT-NU-1604-SWT-SAC01GS003
NU SAC01GS003 AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 3 ISOLATOR
RAT-NU-1604-SWT-SAC01GS004
NU SAC01GS004 AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 4 ISOLATOR
RAT-NU-1604-SWT-SAC01GS005
NU SAC01GS005 AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 5 ISOLATOR
RAT-NU-1604-SWT-SAC01GS006
NU SAC01GS006 AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 6 ISOLATOR
RAT-NU-1604-SWT-SAC01GS007
NU SAC01GS007 AMMONIA PLANT SWITCHROOM GRP HOUSING AIR CONDITIONING UNIT 7 ISOLATOR
RAT-NU-1604-SWT-SAC01GS008
NU SAC01GS008 AMMONIA PLANT SWITCHROOM GRP HOUSING 3KW FAN HEATER NO.1 SWT SPUR
RAT-NU-1604-SWT-SAC01GS009

NU SAC01GS009	AMMONIA PLANT SWITCHROOM GRP HOUSING 3KW FAN HEATER NO.2 SWT SPUR
	RAT-NU-1604-SWT-SAC01GS010
NU SAC01GS010	AMMONIA PLANT SWITCHROOM GRP HOUSING 3KW FAN HEATER NO.3 SWITCHED SPUR
	RAT-NU-1604-SWT-SAC01GS011
NU SAC01GS011	AMMONIA PLANT SWITCHROOM GRP HOUSING EXTRACTION FAN 1 SWITCHED SPUR
	RAT-NU-1604-SWT-SAC01GS012
NU SAC01GS012	AMMONIA PLANT SWITCHROOM GRP HOUSING EXTRACTION FAN 2 SWITCHED SPUR
	RAT-NU-1604-SWT-SAC01GS013
NU SAC01GS013	AMMONIA PLANT SWITCHROOM GRP HOUSING MOTORISED DAMPER 1 SWITCHED SPUR
	RAT-NU-1604-SWT-SAC01GS014
NU SAC01GS014	AMMONIA PLANT SWITCHROOM GRP HOUSING MOTORISED DAMPER 2 SWITCHED SPUR
	RAT-NU-1604-SWT-SGY01GS100
NU SGY01GS100	AMMONIA PLANT SWITCHROOM GRP HOUSING PROTEC FIRE ALARM SYSTEM NON SWITCHED SPUR
	RAT-NU-161
	AMMONIA DELIVERY SYSTEM
	RAT-NU-1610
	AMMONIA OFFLOADING COMMON SYSTEM
	RAT-NU-1610-HTR
	AMMONIA OFFLOADING COMMON - HEATER
	RAT-NU-1610-HTR-HSJ01AH014
NU HSJ01AH014	AMMONIA OFFLOADING AREA FOGGING SPRINKLER TRACE HEATING
	RAT-NU-1611
	AMMONIA OFFLOADING STATION A
	RAT-NU-1611-APN
	AMMONIA OFFLOADING STATION A - PNEUMATIC ACTUATOR
	RAT-NU-1611-APN-HSJ01AA001
NU HSJ01AA001	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE AUTOMATED VALVE 1 PNEUMATIC ACTUATOR
	RAT-NU-1611-APN-HSJ01AA002
NU HSJ01AA002	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE AUTOMATED VALVE 2 PNEUMATIC ACTUATOR
	RAT-NU-1611-APN-HSJ01AA018
NU HSJ01AA018	AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE AUTOMATED VALVE 1 PNEUMATIC ACUATOR
	RAT-NU-1611-APN-HSJ01AA019
NU HSJ01AA019	AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE AUTOMATED VALVE 2 PNEUMATIC ACUATOR
	RAT-NU-1611-SOL
	AMMONIA OFFLOADING STATION A - SOLENOID
	RAT-NU-1611-SOL-HSJ01AA001
NU HSJ01AA001	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE AUTOMATED VALVE 1 SOLENOID
	RAT-NU-1611-SOL-HSJ01AA002
NU HSJ01AA002	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE AUTOMATED VALVE 2 SOLENOID
	RAT-NU-1611-SOL-HSJ01AA018
NU HSJ01AA018	AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE AUTOMATED VALVE 1 SOLENOID
	RAT-NU-1611-SOL-HSJ01AA019
NU HSJ01AA019	AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE AUTOMATED VALVE 2 SOLENOID VALVE

RAT-NU-1611-SWX
AMMONIA OFFLOADING STATION A - AUXILIARY SWITCH
RAT-NU-1611-SWX-HSJ01CG001
NU HSJ01CG001 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE AUTOMATED VALVE 1 LIMIT SWITCH
RAT-NU-1611-SWX-HSJ01CG002
NU HSJ01CG002 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE AUTOMATED VALVE 2 LIMIT SWITCH
RAT-NU-1611-SWX-HSJ01CG018
NU HSJ01CG018 AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE AUTOMATED VALVE 1 LIMIT SWITCH
RAT-NU-1611-SWX-HSJ01CG019
NU HSJ01CG019 AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE AUTOMATED VALVE 2 LIMIT SWITCH
RAT-NU-1611-VLV
AMMONIA OFFLOADING STATION A - VALVE
RAT-NU-1611-VLV-HSJ01AA001
NU HSJ01AA001 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE AUTOMATED VALVE 1
RAT-NU-1611-VLV-HSJ01AA002
NU HSJ01AA002 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE AUTOMATED VALVE 2
RAT-NU-1611-VLV-HSJ01AA003
NU HSJ01AA003 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE MANUAL ISOLATION VALVE 2
RAT-NU-1611-VLV-HSJ01AA004
NU HSJ01AA004 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE MANUAL ISOLATION VALVE 3
RAT-NU-1611-VLV-HSJ01AA018
NU HSJ01AA018 AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE TO TANKER AUTOMATED VALVE 1
RAT-NU-1611-VLV-HSJ01AA019
NU HSJ01AA019 AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE TO TANKER AUTOMATED VALVE 2
RAT-NU-1611-VLV-HSJ01AA020
NU HSJ01AA020 AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE TO TANKER MANUAL ISOLATION VALVE 2
RAT-NU-1611-VLV-HSJ01AA021
NU HSJ01AA021 AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE TO TANKER MANUAL ISOLATION VALVE 3
RAT-NU-1611-VLV-HSJ01AA167
NU HSJ01AA167 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE MANUAL ISOLATION VALVE 1
RAT-NU-1611-VLV-HSJ01AA168
NU HSJ01AA168 AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE MANUAL ISOLATION VALVE 1
RAT-NU-1611-VLV-HSJ01AA251
NU HSJ01AA251 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE HYDROSTATIC RELIEF VALVE 1
RAT-NU-1611-VLV-HSJ01AA252
NU HSJ01AA252 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE HYDROSTATIC RELIEF VALVE 2
RAT-NU-1611-VLV-HSJ01AA253
NU HSJ01AA253 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE HYDROSTATIC RELIEF VALVE 3
RAT-NU-1611-VLV-HSJ01AA254
NU HSJ01AA254 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE HYDROSTATIC RELIEF VALVE 4
RAT-NU-1611-VLV-HSJ01AA320
NU HSJ01AA320 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE PRESSURE INDICATOR ISOLATION VALVE
RAT-NU-1611-VLV-HSJ01AA321

NU HSJ01AA321	AMMONIA OFFLOADING STATION - A (VAPOUR) RETURN LINE TO TANKER PRESSURE INDICATOR ISOLATION VALVE
	RAT-NU-1611-VLV-HSJ01AA401
NU HSJ01AA401	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE BLEED 2 ISOLATION VALVE 1
	RAT-NU-1611-VLV-HSJ01AA402
NU HSJ01AA402	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE BLEED 2 ISOLATION VALVE 2
	RAT-NU-1611-VLV-HSJ01AA403
NU HSJ01AA403	AMMONIA OFFLOADING STATION - A VAPOUR RETURN LINE BLEED 2 ISOLATION VALVE 1
	RAT-NU-1611-VLV-HSJ01AA404
NU HSJ01AA404	AMMONIA OFFLOADING STATION - A VAPOUR RETURN LINE BLEED 2 ISOLATION VALVE 2
	RAT-NU-1611-VLV-HSJ01AA405
NU HSJ01AA405	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE BLEED 3 ISOLATION VALVE 1
	RAT-NU-1611-VLV-HSJ01AA406
NU HSJ01AA406	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE BLEED 3 ISOLATION VALVE 2
	RAT-NU-1611-VLV-HSJ01AA407
NU HSJ01AA407	AMMONIA OFFLOADING STATION - A VAPOUR RETURN LINE BLEED 3 ISOLATION VALVE 1
	RAT-NU-1611-VLV-HSJ01AA408
NU HSJ01AA408	AMMONIA OFFLOADING STATION - A VAPOUR RETURN LINE BLEED 3 ISOLATION VALVE 2
	RAT-NU-1611-VLV-HSJ01AA492
NU HSJ01AA492	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE BLEED 4 ISOLATION VALVE 1
	RAT-NU-1611-VLV-HSJ01AA493
NU HSJ01AA493	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE BLEED 4 ISOLATION VALVE 2
	RAT-NU-1611-VLV-HSJ01AA494
NU HSJ01AA494	AMMONIA OFFLOADING STATION - A VAPOUR RETURN LINE BLEED 4 ISOLATION VALVE 1
	RAT-NU-1611-VLV-HSJ01AA495
NU HSJ01AA495	AMMONIA OFFLOADING STATION - A VAPOUR RETURN LINE BLEED 4 ISOLATION VALVE 2
	RAT-NU-1611-VLV-HSJ01AA644
NU HSJ01AA644	AMMONIA OFFLOADING STATION - A MAIN BLEED TO MAIN VENT HEADER ISOLATION VALVE
	RAT-NU-1611-VLV-HSJ01AA651
NU HSJ01AA651	AMMONIA OFFLOADING STATION - A MAIN BLEED TO MAIN VENT HEADER SAMPLING VALVE
	RAT-NU-1611-VLV-HSJ01AA972
NU HSJ01AA972	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE BLEED 1 ISOLATION VALVE 1
	RAT-NU-1611-VLV-HSJ01AA973
NU HSJ01AA973	AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE BLEED 1 ISOLATION VALVE 2
	RAT-NU-1611-VLV-HSJ01AA974
NU HSJ01AA974	AMMONIA OFFLOADING STATION - A VAPOUR RETURN LINE BLEED 1 ISOLATION VALVE 1
	RAT-NU-1611-VLV-HSJ01AA975
NU HSJ01AA975	AMMONIA OFFLOADING STATION - A VAPOUR RETURN LINE BLEED 1 ISOLATION VALVE 2
	RAT-NU-1611-VLV-HSJ02AA535
NU HSJ02AA535	AMMONIA OFFLOADING STATION - A HYDROSTATIC RELIEF VALVE 4 VENT TO MAIN VENT HEADER ISOLATION VALVE
	RAT-NU-1611-VLV-HSJ02AA671
NU HSJ02AA671	AMMONIA OFFLOADING STATION - A HYDROSTATIC RELIEF VALVE 4 VENT TO MAIN VENT HEADER SAMPLING VALVE
	RAT-NU-1612
	AMMONIA OFFLOADING A NITROGEN SYSTEM
	RAT-NU-1612-VLV

AMMONIA OFFLOADING A NITROGEN SYSTEM - VALVE
RAT-NU-1612-VLV-HSJ01AA801
NU HSJ01AA801 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE NITROGEN PURGE SUPPLY ISOLATION VALVE 1
RAT-NU-1612-VLV-HSJ01AA802
NU HSJ01AA802 AMMONIA OFFLOADING STATION - A (LIQUID) DELIVERY LINE NITROGEN PURGE SUPPLY ISOLATION VALVE 2
RAT-NU-1612-VLV-HSJ01AA803
NU HSJ01AA803 AMMONIA OFFLOADING STATION - A VAPOUR RETURN LINE NITROGEN PURGE SUPPLY ISOLATION VALVE 1
RAT-NU-1612-VLV-HSJ01AA804
NU HSJ01AA804 AMMONIA OFFLOADING STATION - A VAPOUR RETURN LINE NITROGEN PURGE SUPPLY ISOLATION VALVE 2
RAT-NU-1612-VLV-HSJ02AA801
NU HSJ02AA801 AMMONIA OFFLOADING STATION - A MAIN BLEED NITROGEN PURGE ISOLATION VALVE
RAT-NU-1613
AMMONIA OFFLOADING A AIR INSTRUMENT SYSTEM
RAT-NU-1613-APN
AMMONIA OFFLOADING A AIR INSTRUMENT SYSTEM - PNEUMATIC ACTUATOR
RAT-NU-1613-APN-QEB01AA010
NU QEB01AA010 AMMONIA OFFLOADING STATION - A TANKER AIR SHUT-OFF VALVE ACTUATOR
RAT-NU-1613-APN-QEB01AA091
NU QEB01AA091 AMMONIA OFFLOADING STATION - A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 ACTUATOR
RAT-NU-1613-APN-QEB01AA092
NU QEB01AA092 AMMONIA OFFLOADING STATION - A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 ACTUATOR
RAT-NU-1613-PGS
AMMONIA OFFLOADING A AIR INSTRUMENT SYSTEM - INSTRUMENT
RAT-NU-1613-PGS-QEB01CP001
NU QEB01CP001 AMMONIA OFFLOADING STATION A INSTRUMENT AIR SUPPLY PRESSURE INDICATOR
RAT-NU-1613-PGS-QEB01CP003
NU QEB01CP003 AMMONIA OFFLOADING STATION A TANKER AIR SUPPLY PRESSURE INDICATOR
RAT-NU-1613-SOL
AMMONIA OFFLOADING A AIR INSTRUMENT SYSTEM - SOLENOID
RAT-NU-1613-SOL-QEB01AA010
NU QEB01AA010 AMMONIA OFFLOADING STATION - A TANKER AIR SHUT-OFF VALVE SOLENOID
RAT-NU-1613-SOL-QEB01AA091
NU QEB01AA091 AMMONIA OFFLOADING STATION - A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 SOLENOID
RAT-NU-1613-SOL-QEB01AA092
NU QEB01AA092 AMMONIA OFFLOADING STATION - A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 SOLENOID
RAT-NU-1613-SWX
AMMONIA OFFLOADING A AIR INSTRUMENT SYSTEM - AUXILARY SWITCH
RAT-NU-1613-SWX-QEB01CG010
NU QEB01CG010 AMMONIA OFFLOADING STATION - A TANKER AIR SHUT-OFF VALVE LIMIT SWITCH
RAT-NU-1613-SWX-QEB01CG091
NU QEB01CG091 AMMONIA OFFLOADING STATION - A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 LIMIT SWITCH
RAT-NU-1613-SWX-QEB01CG092
NU QEB01CG092 AMMONIA OFFLOADING STATION - A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 LIMIT SWITCH
RAT-NU-1613-VLV

AMMONIA OFFLOADING A AIR INSTRUMENT SYSTEM - VALVE
RAT-NU-1613-VLV-QEB01AA003
NU QEB01AA003 AMMONIA OFFLOADING STATION - A TANKER AIR SUPPLY SHUT-OFF VALVE INLET ISOLATION VALVE
RAT-NU-1613-VLV-QEB01AA004
NU QEB01AA004 AMMONIA OFFLOADING STATION - A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 2
RAT-NU-1613-VLV-QEB01AA005
NU QEB01AA005 AMMONIA OFFLOADING STATION - A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 3
RAT-NU-1613-VLV-QEB01AA006
NU QEB01AA006 AMMONIA OFFLOADING STATION - A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 4
RAT-NU-1613-VLV-QEB01AA007
NU QEB01AA007 AMMONIA OFFLOADING STATION - A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 5
RAT-NU-1613-VLV-QEB01AA008
NU QEB01AA008 AMMONIA OFFLOADING STATION - A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 6 (SPARE)
RAT-NU-1613-VLV-QEB01AA009
NU QEB01AA009 AMMONIA OFFLOADING STATION - A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 1
RAT-NU-1613-VLV-QEB01AA010
NU QEB01AA010 AMMONIA OFFLOADING STATION - A TANKER AIR SUPPLY SHUT-OFF VALVE
RAT-NU-1613-VLV-QEB01AA090
NU QEB01AA090 AMMONIA OFFLOADING STATION - A TANKER AIR SUPPLY ISOLATION VALVE 2
RAT-NU-1613-VLV-QEB01AA091
NU QEB01AA091 AMMONIA OFFLOADING STATION - A SIS INSTRUMENT AIR SHUT-OFF VALVE 1
RAT-NU-1613-VLV-QEB01AA092
NU QEB01AA092 AMMONIA OFFLOADING STATION - A SIS INSTRUMENT AIR SHUT-OFF VALVE 2
RAT-NU-1613-VLV-QEB01AA113
NU QEB01AA113 AMMONIA OFFLOADING STATION A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 AIR SUPPLY ISOLATION VALVE
RAT-NU-1613-VLV-QEB01AA114
NU QEB01AA114 AMMONIA OFFLOADING STATION A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 AIR SUPPLY ISOLATION VALVE
RAT-NU-1613-VLV-QEB01AA180
NU QEB01AA180 AMMONIA OFFLOADING STATION - A TANKER AIR SUPPLY ISOLATION VALVE 1
RAT-NU-1613-VLV-QEB01AA301
NU QEB01AA301 AMMONIA OFFLOADING STATION A INSTRUMENT AIR SUPPLY PRESSURE INDICATOR ISOLATION VALVE
RAT-NU-1613-VLV-QEB01AA303
NU QEB01AA303 AMMONIA OFFLOADING STATION A TANKER AIR SUPPLY PRESSURE INDICATOR ISOLATION VALVE
RAT-NU-1615
AMMONIA OFFLOADING STATION B
RAT-NU-1615-APN
AMMONIA OFFLOADING STATION B - PNEUMATIC ACTUATOR
RAT-NU-1615-APN-HSJ01AA005
NU HSJ01AA005 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE AUTOMATED VALVE 1 PNEUMATIC ACTUATOR
RAT-NU-1615-APN-HSJ01AA006
NU HSJ01AA006 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE AUTOMATED VALVE 2 PNEUMATIC ACTUATOR
RAT-NU-1615-APN-HSJ01AA022
NU HSJ01AA022 AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE AUTOMATED VALVE 1 PNEUMATIC ACUATOR

RAT-NU-1615-APN-HSJ01AA023
NU HSJ01AA023 AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE AUTOMATED VALVE 2 PNEUMATIC ACUATOR
RAT-NU-1615-SOL
AMMONIA OFFLOADING STATION B - SOLENOID
RAT-NU-1615-SOL-HSJ01AA005
NU HSJ01AA005 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE AUTOMATED VALVE 1 SOLENOID
RAT-NU-1615-SOL-HSJ01AA006
NU HSJ01AA006 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE AUTOMATED VALVE 2 SOLENOID
RAT-NU-1615-SOL-HSJ01AA022
NU HSJ01AA022 AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE AUTOMATED VALVE 1 SOLENOID
RAT-NU-1615-SOL-HSJ01AA023
NU HSJ01AA023 AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE AUTOMATED VALVE 2 SOLENOID
RAT-NU-1615-SWX
AMMONIA OFFLOADING STATION B - AUXILIARY SWITCH
RAT-NU-1615-SWX-HSJ01CG005
NU HSJ01CG005 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE AUTOMATED VALVE 1 LIMIT SWITCH
RAT-NU-1615-SWX-HSJ01CG006
NU HSJ01CG006 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE AUTOMATED VALVE 2 LIMIT SWITCH
RAT-NU-1615-SWX-HSJ01CG022
NU HSJ01CG022 AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE AUTOMATED VALVE 1 LIMIT SWITCH
RAT-NU-1615-SWX-HSJ01CG023
NU HSJ01CG023 AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE AUTOMATED VALVE 2 LIMIT SWITCH
RAT-NU-1615-VLV
AMMONIA OFFLOADING STATION B - VALVE
RAT-NU-1615-VLV-HSJ01AA005
NU HSJ01AA005 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE AUTOMATED VALVE 1
RAT-NU-1615-VLV-HSJ01AA006
NU HSJ01AA006 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE AUTOMATED VALVE 2
RAT-NU-1615-VLV-HSJ01AA007
NU HSJ01AA007 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE MANUAL ISOLATION VALVE 2
RAT-NU-1615-VLV-HSJ01AA008
NU HSJ01AA008 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE MANUAL ISOLATION VALVE 3
RAT-NU-1615-VLV-HSJ01AA022
NU HSJ01AA022 AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE TO TANKER AUTOMATED VALVE 1
RAT-NU-1615-VLV-HSJ01AA023
NU HSJ01AA023 AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE TO TANKER AUTOMATED VALVE 2
RAT-NU-1615-VLV-HSJ01AA024
NU HSJ01AA024 AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE TO TANKER MANUAL ISOLATION VALVE 2
RAT-NU-1615-VLV-HSJ01AA025
NU HSJ01AA025 AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE TO TANKER MANUAL ISOLATION VALVE 3
RAT-NU-1615-VLV-HSJ01AA169
NU HSJ01AA169 AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE MANUAL ISOLATION VALVE 1
RAT-NU-1615-VLV-HSJ01AA170

NU HSJ01AA170	AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE MANUAL ISOLATION VALVE 1
	RAT-NU-1615-VLV-HSJ01AA255
NU HSJ01AA255	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE HYDROSTATIC RELIEF VALVE 1
	RAT-NU-1615-VLV-HSJ01AA256
NU HSJ01AA256	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1615-VLV-HSJ01AA257
NU HSJ01AA257	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE HYDROSTATIC RELIEF VALVE 3
	RAT-NU-1615-VLV-HSJ01AA258
NU HSJ01AA258	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE HYDROSTATIC RELIEF VALVE 4
	RAT-NU-1615-VLV-HSJ01AA322
NU HSJ01AA322	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE PRESSURE INDICATOR ISOLATION VALVE
	RAT-NU-1615-VLV-HSJ01AA323
NU HSJ01AA323	AMMONIA OFFLOADING STATION - B (VAPOUR) RETURN LINE TO TANKER PRESSURE INDICATOR ISOLATION VALVE
	RAT-NU-1615-VLV-HSJ01AA409
NU HSJ01AA409	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE BLEED 2 ISOLATION VALVE 1
	RAT-NU-1615-VLV-HSJ01AA410
NU HSJ01AA410	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE BLEED 2 ISOLATION VALVE 2
	RAT-NU-1615-VLV-HSJ01AA411
NU HSJ01AA411	AMMONIA OFFLOADING STATION - B VAPOUR RETURN LINE BLEED 2 ISOLATION VALVE 1
	RAT-NU-1615-VLV-HSJ01AA412
NU HSJ01AA412	AMMONIA OFFLOADING STATION - B VAPOUR RETURN LINE BLEED 2 ISOLATION VALVE 2
	RAT-NU-1615-VLV-HSJ01AA413
NU HSJ01AA413	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE BLEED 3 ISOLATION VALVE 1
	RAT-NU-1615-VLV-HSJ01AA414
NU HSJ01AA414	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE BLEED 3 ISOLATION VALVE 2
	RAT-NU-1615-VLV-HSJ01AA415
NU HSJ01AA415	AMMONIA OFFLOADING STATION - B VAPOUR RETURN LINE BLEED 3 ISOLATION VALVE 1
	RAT-NU-1615-VLV-HSJ01AA416
NU HSJ01AA416	AMMONIA OFFLOADING STATION - B VAPOUR RETURN LINE BLEED 3 ISOLATION VALVE 2
	RAT-NU-1615-VLV-HSJ01AA496
NU HSJ01AA496	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE BLEED 4 ISOLATION VALVE 1
	RAT-NU-1615-VLV-HSJ01AA497
NU HSJ01AA497	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE BLEED 4 ISOLATION VALVE 2
	RAT-NU-1615-VLV-HSJ01AA498
NU HSJ01AA498	AMMONIA OFFLOADING STATION - B VAPOUR RETURN LINE BLEED 4 ISOLATION VALVE 1
	RAT-NU-1615-VLV-HSJ01AA499
NU HSJ01AA499	AMMONIA OFFLOADING STATION - B VAPOUR RETURN LINE BLEED 4 ISOLATION VALVE 2
	RAT-NU-1615-VLV-HSJ01AA645
NU HSJ01AA645	AMMONIA OFFLOADING STATION - B MAIN BLEED TO MAIN VENT HEADER ISOLATION VALVE
	RAT-NU-1615-VLV-HSJ01AA652
NU HSJ01AA652	AMMONIA OFFLOADING STATION - B MAIN BLEED TO MAIN VENT HEADER SAMPLING VALVE
	RAT-NU-1615-VLV-HSJ01AA976
NU HSJ01AA976	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE BLEED 1 ISOLATION VALVE 1
	RAT-NU-1615-VLV-HSJ01AA977

NU HSJ01AA977	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE BLEED 1 ISOLATION VALVE 2
	RAT-NU-1615-VLV-HSJ01AA978
NU HSJ01AA978	AMMONIA OFFLOADING STATION - B VAPOUR RETURN LINE BLEED 1 ISOLATION VALVE 1
	RAT-NU-1615-VLV-HSJ01AA979
NU HSJ01AA979	AMMONIA OFFLOADING STATION - B VAPOUR RETURN LINE BLEED 1 ISOLATION VALVE 2
	RAT-NU-1615-VLV-HSJ02AA536
NU HSJ02AA536	AMMONIA OFFLOADING STATION - B HYDROSTATIC RELIEF VALVE 4 VENT TO MAIN VENT HEADER ISOLATION VALVE
	RAT-NU-1615-VLV-HSJ02AA672
NU HSJ02AA672	AMMONIA OFFLOADING STATION - B HYDROSTATIC RELIEF VALVE 4 VENT TO MAIN VENT HEADER SAMPLING VALVE
	RAT-NU-1616
	AMMONIA OFFLOADING B NITROGEN SYSTEM
	RAT-NU-1616-VLV
	AMMONIA OFFLOADING B NITROGEN SYSTEM - VALVE
	RAT-NU-1616-VLV-HSJ01AA805
NU HSJ01AA805	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE NITROGEN PURGE SUPPLY ISOLATION VALVE 1
	RAT-NU-1616-VLV-HSJ01AA806
NU HSJ01AA806	AMMONIA OFFLOADING STATION - B (LIQUID) DELIVERY LINE NITROGEN PURGE SUPPLY ISOLATION VALVE 2
	RAT-NU-1616-VLV-HSJ01AA807
NU HSJ01AA807	AMMONIA OFFLOADING STATION - B VAPOUR RETURN LINE NITROGEN PURGE SUPPLY ISOLATION VALVE 1
	RAT-NU-1616-VLV-HSJ01AA808
NU HSJ01AA808	AMMONIA OFFLOADING STATION - B VAPOUR RETURN LINE NITROGEN PURGE SUPPLY ISOLATION VALVE 2
	RAT-NU-1616-VLV-HSJ02AA802
NU HSJ02AA802	AMMONIA OFFLOADING STATION - B MAIN BLEED NITROGEN PURGE ISOLATION VALVE
	RAT-NU-1617
	AMMONIA OFFLOADING B AIR INSTRUMENT SYSTEM
	RAT-NU-1617-APN
	AMMONIA OFFLOADING B AIR INSTRUMENT SYSTEM - PNEUMATIC ACTUATOR
	RAT-NU-1617-APN-QEB01AA020
NU QEB01AA020	AMMONIA OFFLOADING STATION - B TANKER AIR SHUT-OFF VALVE ACTUATOR
	RAT-NU-1617-APN-QEB01AA094
NU QEB01AA094	AMMONIA OFFLOADING STATION - B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 ACTUATOR
	RAT-NU-1617-APN-QEB01AA095
NU QEB01AA095	AMMONIA OFFLOADING STATION - B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 ACTUATOR
	RAT-NU-1617-PGS
	AMMONIA OFFLOADING B AIR INSTRUMENT SYSTEM - INSTRUMENT
	RAT-NU-1617-PGS-QEB01CP002
NU QEB01CP002	AMMONIA OFFLOADING STATION B INSTRUMENT AIR SUPPLY PRESSURE INDICATOR
	RAT-NU-1617-PGS-QEB01CP004
NU QEB01CP004	AMMONIA OFFLOADING STATION B TANKER AIR SUPPLY PRESSURE INDICATOR
	RAT-NU-1617-SOL
	AMMONIA OFFLOADING B AIR INSTRUMENT SYSTEM - SOLENOID
	RAT-NU-1617-SOL-QEB01AA020
NU QEB01AA020	AMMONIA OFFLOADING STATION - B TANKER AIR SHUT-OFF VALVE SOLENOID

RAT-NU-1617-SOL-QEB01AA094
NU QEB01AA094 AMMONIA OFFLOADING STATION - B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 SOLENOID
RAT-NU-1617-SOL-QEB01AA095
NU QEB01AA095 AMMONIA OFFLOADING STATION - B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 SOLENOID
RAT-NU-1617-SWX
AMMONIA OFFLOADING B AIR INSTRUMENT SYSTEM - AUXILIARY SWITCH
RAT-NU-1617-SWX-QEB01CG020
NU QEB01CG020 AMMONIA OFFLOADING STATION - B TANKER AIR SHUT-OFF VALVE LIMIT SWITCH
RAT-NU-1617-SWX-QEB01CG094
NU QEB01CG094 AMMONIA OFFLOADING STATION - B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 LIMIT SWITCH
RAT-NU-1617-SWX-QEB01CG095
NU QEB01CG095 AMMONIA OFFLOADING STATION - B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 LIMIT SWITCH
RAT-NU-1617-VLV
AMMONIA OFFLOADING B AIR INSTRUMENT SYSTEM - VALVE
RAT-NU-1617-VLV-QEB01AA012
NU QEB01AA012 AMMONIA OFFLOADING STATION - B TANKER AIR SUPPLY SHUT-OFF VALVE INLET ISOLATION VALVE
RAT-NU-1617-VLV-QEB01AA013
NU QEB01AA013 AMMONIA OFFLOADING STATION - B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 2
RAT-NU-1617-VLV-QEB01AA014
NU QEB01AA014 AMMONIA OFFLOADING STATION - B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 3
RAT-NU-1617-VLV-QEB01AA015
NU QEB01AA015 AMMONIA OFFLOADING STATION - B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 4
RAT-NU-1617-VLV-QEB01AA016
NU QEB01AA016 AMMONIA OFFLOADING STATION - B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 5
RAT-NU-1617-VLV-QEB01AA017
NU QEB01AA017 AMMONIA OFFLOADING STATION - B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 6 (SPARE)
RAT-NU-1617-VLV-QEB01AA019
NU QEB01AA019 AMMONIA OFFLOADING STATION - B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 1
RAT-NU-1617-VLV-QEB01AA020
NU QEB01AA020 AMMONIA OFFLOADING STATION - B TANKER AIR SUPPLY SHUT-OFF VALVE
RAT-NU-1617-VLV-QEB01AA093
NU QEB01AA093 AMMONIA OFFLOADING STATION - B TANKER AIR SUPPLY ISOLATION VALVE 2
RAT-NU-1617-VLV-QEB01AA094
NU QEB01AA094 AMMONIA OFFLOADING STATION - B SIS INSTRUMENT AIR SHUT-OFF VALVE 1
RAT-NU-1617-VLV-QEB01AA095
NU QEB01AA095 AMMONIA OFFLOADING STATION - B SIS INSTRUMENT AIR SHUT-OFF VALVE 2
RAT-NU-1617-VLV-QEB01AA115
NU QEB01AA115 AMMONIA OFFLOADING STATION B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 AIR SUPPLY ISOLATION VALVE
RAT-NU-1617-VLV-QEB01AA116
NU QEB01AA116 AMMONIA OFFLOADING STATION B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 AIR SUPPLY ISOLATION VALVE
RAT-NU-1617-VLV-QEB01AA181
NU QEB01AA181 AMMONIA OFFLOADING STATION - B TANKER AIR SUPPLY ISOLATION VALVE 1
RAT-NU-1617-VLV-QEB01AA302
NU QEB01AA302 AMMONIA OFFLOADING STATION B INSTRUMENT AIR SUPPLY PRESSURE INDICATOR ISOLATION

VALVE
RAT-NU-1617-VLV-QEB01AA303
NU QEB01AA303 AMMONIA OFFLOADING STATION - B TANKER AIR SUPPLY PRESSURE INDICATOR ISOLATION VALVE
RAT-NU-1617-VLV-QEB01AA304
NU QEB01AA304 AMMONIA OFFLOADING STATION B TANKER AIR SUPPLY PRESSURE INDICATOR ISOLATION VALVE
RAT-NU-1619
AMMONIA OFFLOADING MANIFOLD SYSTEM
RAT-NU-1619-VLV
AMMONIA OFFLOADING MANIFOLD - VALVE
RAT-NU-1619-VLV-HSJ01AA009
NU HSJ01AA009 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA LINE (FUTURE CONNECTION) MANUAL ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA010
NU HSJ01AA010 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK A ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA011
NU HSJ01AA011 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK A ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA014
NU HSJ01AA014 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK B ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA015
NU HSJ01AA015 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK B ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA026
NU HSJ01AA026 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA LINE (FUTURE CONNECTION) MANUAL ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA032
NU HSJ01AA032 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK A ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA033
NU HSJ01AA033 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK A ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA035
NU HSJ01AA035 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK B ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA036
NU HSJ01AA036 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK B ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA125
NU HSJ01AA125 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA LINE (FUTURE CONNECTION) MANUAL ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA126
NU HSJ01AA126 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA LINE (FUTURE CONNECTION) MANUAL ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA419
NU HSJ01AA419 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK A BLEED ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA420
NU HSJ01AA420 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK A BLEED ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA421
NU HSJ01AA421 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK A BLEED ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA422
NU HSJ01AA422 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK A BLEED ISOLATION VALVE 2

RAT-NU-1619-VLV-HSJ01AA423
NU HSJ01AA423 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK B BLEED ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA424
NU HSJ01AA424 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK B BLEED ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA425
NU HSJ01AA425 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK B BLEED ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA426
NU HSJ01AA426 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK B BLEED ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA813
NU HSJ01AA813 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK A PURGE TO VENT ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA814
NU HSJ01AA814 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK A PURGE TO VENT ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA815
NU HSJ01AA815 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK A PURGE TO VENT ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA816
NU HSJ01AA816 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK A PURGE TO VENT ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA817
NU HSJ01AA817 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK B PURGE TO VENT ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA818
NU HSJ01AA818 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA RETURN LINE FROM STORAGE TANK B PURGE TO VENT ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA819
NU HSJ01AA819 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK B PURGE TO VENT ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA820
NU HSJ01AA820 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA SUPPLY LINE TO STORAGE TANK B PURGE TO VENT ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA901
NU HSJ01AA901 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA LINE (FUTURE CONNECTION) BLEED ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA902
NU HSJ01AA902 AMMONIA OFFLOADING MANIFOLD LIQUID AMMONIA LINE (FUTURE CONNECTION) BLEED ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ01AA903
NU HSJ01AA903 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA LINE (FUTURE CONNECTION) BLEED ISOLATION VALVE 1
RAT-NU-1619-VLV-HSJ01AA904
NU HSJ01AA904 AMMONIA OFFLOADING MANIFOLD VAPOUR AMMONIA LINE (FUTURE CONNECTION) BLEED ISOLATION VALVE 2
RAT-NU-1619-VLV-HSJ02AA537
NU HSJ02AA537 AMMONIA OFLLOADING STATION MANIFOLD PURGE 1 TO MAIN VENT HEADER ISOLATION VALVE
RAT-NU-1619-VLV-HSJ02AA538
NU HSJ02AA538 AMMONIA OFLLOADING STATION MANIFOLD PURGE 2 TO MAIN VENT HEADER ISOLATION VALVE
RAT-NU-1619-VLV-HSJ02AA673
NU HSJ02AA673 AMMONIA OFLLOADING STATION MANIFOLD PURGE 1 TO MAIN VENT HEADER SAMPLING VALVE
RAT-NU-1619-VLV-HSJ02AA674
NU HSJ02AA674 AMMONIA OFLLOADING STATION MANIFOLD PURGE 2 TO MAIN VENT HEADER SAMPLING VALVE
RAT-NU-162

AMMONIA STORAGE SYSTEM
RAT-NU-1620
AMMONIA STORAGE COMMON SYSTEM
RAT-NU-1620-HTR
AMMONIA STORAGE COMMON SYSTEM - HEATER
RAT-NU-1620-HTR-HSJ01AH013
NU HSJ01AH013 AMMONIA STORAGE TANK AREA FOGGING TRACE HEATING
RAT-NU-1621
AMMONIA STORAGE TANK A SYSTEM
RAT-NU-1621-APN
AMMONIA STORAGE TANK A SYSTEM - PNEUMATIC ACTUATOR
RAT-NU-1621-APN-HSJ01AA012
NU HSJ01AA012 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA SUPPLY ON/OFF VALVE ACTUATOR
RAT-NU-1621-APN-HSJ01AA034
NU HSJ01AA034 ANHYDROUS AMMONIA STORAGE TANK A VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ON/OFF VALVE ACTUATOR
RAT-NU-1621-APN-HSJ01AA038
NU HSJ01AA038 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET SHUT-OFF VALVE 1 ACTUATOR
RAT-NU-1621-APN-HSJ01AA057
NU HSJ01AA057 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A) ON/OFF VALVE ACTUATOR
RAT-NU-1621-APN-HSJ01AA134
NU HSJ01AA134 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET SHUT-OFF VALVE 2 ACTUATOR
RAT-NU-1621-LVS
AMMONIA STORAGE TANK A SYSTEM - LEVEL SWITCH
RAT-NU-1621-LVS-HSJ01CL017
NU HSJ01CL017 ANHYDROUS AMMONIA STORAGE TANK A LOW LEVEL SWITCH
RAT-NU-1621-PGS
AMMONIA STORAGE TANK A SYSTEM - PRESSURE GAUGE
RAT-NU-1621-PGS-HSJ01CP001
NU HSJ01CP001 ANHYDROUS AMMONIA STORAGE TANK A PRESSURE INDICATOR
RAT-NU-1621-SOL
AMMONIA STORAGE TANK A SYSTEM - SOLENOID
RAT-NU-1621-SOL-HSJ01AA012
NU HSJ01AA012 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA SUPPLY ON/OFF VALVE SOLENOID
RAT-NU-1621-SOL-HSJ01AA034
NU HSJ01AA034 ANHYDROUS AMMONIA STORAGE TANK A VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ON/OFF VALVE SOLENOID
RAT-NU-1621-SOL-HSJ01AA038
NU HSJ01AA038 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET SHUT-OFF VALVE 1 SOLENOID
RAT-NU-1621-SOL-HSJ01AA057
NU HSJ01AA057 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A) ON/OFF VALVE SOLENOID
RAT-NU-1621-SOL-HSJ01AA134
NU HSJ01AA134 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET SHUT-OFF VALVE 2 SOLENOID
RAT-NU-1621-SWX
AMMONIA STORAGE TANK A SYSTEM - AUXILIARY SWITCH

RAT-NU-1621-SWX-HSJ01CG012
NU HSJ01CG012 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA SUPPLY ON/OFF VALVE LIMIT SWITCH
RAT-NU-1621-SWX-HSJ01CG034
NU HSJ01CG034 ANHYDROUS AMMONIA STORAGE TANK A VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ON/OFF VALVE LIMIT SWITCH
RAT-NU-1621-SWX-HSJ01CG038
NU HSJ01CG038 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET SHUT-OFF VALVE 1 LIMIT SWITCH
RAT-NU-1621-SWX-HSJ01CG057
NU HSJ01CG057 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A) ON/OFF VALVE LIMIT SWITCH
RAT-NU-1621-SWX-HSJ01CG134
NU HSJ01CG134 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET SHUT-OFF VALVE 2 LIMIT SWITCH
RAT-NU-1621-TNK
AMMONIA STORAGE TANK A SYSTEM - TANK
RAT-NU-1621-TNK-HSJ01BB001
NU HSJ01BB001 ANYDROUS AMMONIA STORAGE TANK A
RAT-NU-1621-TXS
AMMONIA STORAGE TANK A SYSTEM - TRANSMITTER
RAT-NU-1621-TXS-HSJ01CL001
NU HSJ01CL001 ANHYDROUS AMMONIA STORAGE TANK A LEVEL TRANSMITTER 1
RAT-NU-1621-TXS-HSJ01CL002
NU HSJ01CL002 ANHYDROUS AMMONIA STORAGE TANK A LEVEL TRANSMITTER 2
RAT-NU-1621-TXS-HSJ01CL020
NU HSJ01CL020 ANYDROUS AMMONIA STORAGE TANK A LEVEL TRANSMITTER 3
RAT-NU-1621-TXS-HSJ01CL021
NU HSJ01CL021 ANYDROUS AMMONIA STORAGE TANK A LEVEL TRANSMITTER 4
RAT-NU-1621-TXS-HSJ01CP002
NU HSJ01CP002 ANHYDROUS AMMONIA STORAGE TANK A PRESSURE TRANSMITTER 1
RAT-NU-1621-TXS-HSJ01CP003
NU HSJ01CP003 ANHYDROUS AMMONIA STORAGE TANK A PRESSURE TRANSMITTER 2
RAT-NU-1621-VLV
AMMONIA STORAGE TANK A SYSTEM - VALVE
RAT-NU-1621-VLV-HSJ01AA012
NU HSJ01AA012 AMMONIA LIQUID TO TANK A - AUTOMATED BALL VALVE
RAT-NU-1621-VLV-HSJ01AA013
NU HSJ01AA013 STORAGE TANK A LIQUID FILL - EXCESS FLOW VALVE
RAT-NU-1621-VLV-HSJ01AA034
NU HSJ01AA034 ANHYDROUS AMMONIA STORAGE TANK A VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ON/OFF VALVE
RAT-NU-1621-VLV-HSJ01AA037
NU HSJ01AA037 STORAGE TANK A LIQUID DELIVERY TO FORWARDING PUMP - EXCESS FLOW VALVE
RAT-NU-1621-VLV-HSJ01AA038
NU HSJ01AA038 AMMONIA LIQUID FROM TANK A TO FORWARDING MANIFOLD - AUTOMATED BALL VALVE
RAT-NU-1621-VLV-HSJ01AA057
NU HSJ01AA057 AMMONIA LIQUID FROM FORWARDING MANIFOLD TO TANK A - AUTOMATED BALL VALVE
RAT-NU-1621-VLV-HSJ01AA058

NU HSJ01AA058	STORAGE TANK A LIQUID RETURN FROM FORWARDING PUMP - EXCESS FLOW VALVE
	RAT-NU-1621-VLV-HSJ01AA127
NU HSJ01AA127	ANHYDROUS AMMONIA STORAGE TANK A VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD EXCESS FLOW CHECK VALVE
	RAT-NU-1621-VLV-HSJ01AA128
NU HSJ01AA128	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA SUPPLY ISOLATION VALVE 1
	RAT-NU-1621-VLV-HSJ01AA129
NU HSJ01AA129	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA SUPPLY ISOLATION VALVE 2
	RAT-NU-1621-VLV-HSJ01AA130
NU HSJ01AA130	ANHYDROUS AMMONIA STORAGE TANK A VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ISOLATION VALVE 1
	RAT-NU-1621-VLV-HSJ01AA131
NU HSJ01AA131	ANHYDROUS AMMONIA STORAGE TANK A VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ISOLATION VALVE 2
	RAT-NU-1621-VLV-HSJ01AA132
NU HSJ01AA132	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET ISOLATION VALVE 1
	RAT-NU-1621-VLV-HSJ01AA133
NU HSJ01AA133	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET ISOLATION VALVE 2
	RAT-NU-1621-VLV-HSJ01AA134
NU HSJ01AA134	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET SHUT-OFF VALVE 2
	RAT-NU-1621-VLV-HSJ01AA135
NU HSJ01AA135	LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A) ISOLATION VALVE 2
	RAT-NU-1621-VLV-HSJ01AA136
NU HSJ01AA136	LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A) ISOLATION VALVE 1
	RAT-NU-1621-VLV-HSJ01AA148
NU HSJ01AA148	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA RECIRCULATION LINE ISOLATION VALVE 1
	RAT-NU-1621-VLV-HSJ01AA149
NU HSJ01AA149	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA RECIRCULATION LINE ISOLATION VALVE 2
	RAT-NU-1621-VLV-HSJ01AA165
NU HSJ01AA165	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET EXCESS FLOW CHECK VALVE
	RAT-NU-1621-VLV-HSJ01AA223
NU HSJ01AA223	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1621-VLV-HSJ01AA224
NU HSJ01AA224	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4
	RAT-NU-1621-VLV-HSJ01AA259
NU HSJ01AA259	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA SUPPLY LINE HYDROSTATIC RELIEF VALVE 1
	RAT-NU-1621-VLV-HSJ01AA282
NU HSJ01AA282	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE
	RAT-NU-1621-VLV-HSJ01AA284
NU HSJ01AA284	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA SUPPLY LINE HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1621-VLV-HSJ01AA286
NU HSJ01AA286	LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A) HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1621-VLV-HSJ01AA287
NU HSJ01AA287	LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A) HYDROSTATIC RELIEF VALVE 1

RAT-NU-1621-VLV-HSJ01AA301
NU HSJ01AA301 ANHYDROUS AMMONIA STORAGE TANK A PRESSURE INDICATOR/TRANSMITTER 1 EXCESS FLOW CHECK VALVE
RAT-NU-1621-VLV-HSJ01AA302
NU HSJ01AA302 ANHYDROUS AMMONIA STORAGE TANK A PRESSURE INDICATOR/TRANSMITTER 1 ISOLATION VALVE
RAT-NU-1621-VLV-HSJ01AA303
NU HSJ01AA303 ANHYDROUS AMMONIA STORAGE TANK A PRESSURE TRANSMITTER 2 EXCESS FLOW CHECK VALVE
RAT-NU-1621-VLV-HSJ01AA304
NU HSJ01AA304 ANHYDROUS AMMONIA STORAGE TANK A PRESSURE TRANSMITTER 2 ISOLATION VALVE
RAT-NU-1621-VLV-HSJ01AA429
NU HSJ01AA429 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET BLEED 2 ISOLATION VALVE 1
RAT-NU-1621-VLV-HSJ01AA487
NU HSJ01AA487 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET BLEED 2 ISOLATION VALVE 2
RAT-NU-1621-VLV-HSJ01AA563
NU HSJ01AA563 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA RECIRCULATION BLEED 2 TO VENT HEADER ISOLATION VALVE
RAT-NU-1621-VLV-HSJ01AA566
NU HSJ01AA566 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A)
RAT-NU-1621-VLV-HSJ01AA567
NU HSJ01AA567 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE VENT ISOLATION VALVE
RAT-NU-1621-VLV-HSJ01AA568
NU HSJ01AA568 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A)
RAT-NU-1621-VLV-HSJ01AA571
NU HSJ01AA571 ANHYDROUS AMMONIA STORAGE TANK A VENT HEADER ISOLATION VALVE
RAT-NU-1621-VLV-HSJ01AA707
NU HSJ01AA707 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4 VENT ISOLATION VALVE
RAT-NU-1621-VLV-HSJ01AA708
NU HSJ01AA708 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2 VENT ISOLATION VALVE
RAT-NU-1621-VLV-HSJ01AA709
NU HSJ01AA709 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA SUPPLY LINE HYDROSTATIC RELIEF VALVE 1 VENT ISOLATION VALVE
RAT-NU-1621-VLV-HSJ01AA907
NU HSJ01AA907 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA SUPPLY BLEED TO VENT ISOLATION VALVE 1
RAT-NU-1621-VLV-HSJ01AA908
NU HSJ01AA908 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA SUPPLY BLEED TO VENT ISOLATION VALVE 2
RAT-NU-1621-VLV-HSJ01AA909
NU HSJ01AA909 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA VAPOUR RETURN TO OFFLOADING BLEED TO VENT ISOLATION VALVE 1
RAT-NU-1621-VLV-HSJ01AA910
NU HSJ01AA910 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA VAPOUR RETURN TO OFFLOADING BLEED TO VENT ISOLATION VALVE 2
RAT-NU-1621-VLV-HSJ01AA913
NU HSJ01AA913 AMMONIA FORWARDING MANIFOLD LIQUID RETURN (TO ANHYDROUS AMMONIA STORAGE TANK A) BLEED TO VENT ISOLATION VALVE 1
RAT-NU-1621-VLV-HSJ01AA914
NU HSJ01AA914 AMMONIA FORWARDING MANIFOLD LIQUID RETURN (TO ANHYDROUS AMMONIA STORAGE TANK A) BLEED TO VENT ISOLATION VALVE 2
RAT-NU-1621-VLV-HSJ01AA933

NU HSJ01AA933	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA RECIRCULATION LINE BLEED 1 ISOLATION VALVE 1
	RAT-NU-1621-VLV-HSJ01AA934
NU HSJ01AA934	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA RECIRCULATION LINE BLEED 1 ISOLATION VALVE 2
	RAT-NU-1621-VLV-HSJ01AA935
NU HSJ01AA935	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA RECIRCULATION LINE BLEED 2 ISOLATION VALVE 1
	RAT-NU-1621-VLV-HSJ01AA936
NU HSJ01AA936	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA RECIRCULATION LINE BLEED 2 ISOLATION VALVE 2
	RAT-NU-1621-VLV-HSJ01AA944
NU HSJ01AA944	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET DRAIN ISOLATION VALVE 1
	RAT-NU-1621-VLV-HSJ01AA945
NU HSJ01AA945	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET DRAIN ISOLATION VALVE 2
	RAT-NU-1621-VLV-HSJ01AA964
NU HSJ01AA964	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET BLEED 1 ISOLATION VALVE 1
	RAT-NU-1621-VLV-HSJ01AA965
NU HSJ01AA965	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET BLEED 1 ISOLATION VALVE 2
	RAT-NU-1621-VLV-HSJ02AA295
NU HSJ02AA295	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1
	RAT-NU-1621-VLV-HSJ02AA297
NU HSJ02AA297	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3
	RAT-NU-1621-VLV-HSJ02AA501
NU HSJ02AA501	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 INLET ISOLATION VALVE
	RAT-NU-1621-VLV-HSJ02AA502
NU HSJ02AA502	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2 INLET ISOLATION VALVE
	RAT-NU-1621-VLV-HSJ02AA503
NU HSJ02AA503	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 VENT ISOLATION VALVE
	RAT-NU-1621-VLV-HSJ02AA504
NU HSJ02AA504	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 BLEED VALVE 2
	RAT-NU-1621-VLV-HSJ02AA505
NU HSJ02AA505	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 BLEED VALVE 1
	RAT-NU-1621-VLV-HSJ02AA506
NU HSJ02AA506	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2 BLEED VALVE 2
	RAT-NU-1621-VLV-HSJ02AA507
NU HSJ02AA507	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2 BLEED VALVE 1
	RAT-NU-1621-VLV-HSJ02AA515
NU HSJ02AA515	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 INLET ISOLATION VALVE
	RAT-NU-1621-VLV-HSJ02AA516
NU HSJ02AA516	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4 INLET ISOLATION VALVE
	RAT-NU-1621-VLV-HSJ02AA517
NU HSJ02AA517	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 VENT ISOLATION VALVE
	RAT-NU-1621-VLV-HSJ02AA518
NU HSJ02AA518	ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 BLEED VALVE 1

RAT-NU-1621-VLV-HSJ02AA519
NU HSJ02AA519 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 BLEED VALVE 2
RAT-NU-1621-VLV-HSJ02AA520
NU HSJ02AA520 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4 BLEED VALVE 1
RAT-NU-1621-VLV-HSJ02AA521
NU HSJ02AA521 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4 BLEED VALVE 2
RAT-NU-1621-VLV-HSJ02AA544
NU HSJ02AA544 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 & 2 CHANGE-OVER 3-WAY VALVE
RAT-NU-1621-VLV-HSJ02AA545
NU HSJ02AA545 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 & 4 CHANGE-OVER 3-WAY VALVE
RAT-NU-1621-VLV-HSJ02AA651
NU HSJ02AA651 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA SUPPLY LINE HYDROSTATIC RELIEF VALVE 1 VENT SAMPLING VALVE
RAT-NU-1621-VLV-HSJ02AA652
NU HSJ02AA652 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA RECIRCULATION BLEED 2 SAMPLING VALVE
RAT-NU-1621-VLV-HSJ02AA653
NU HSJ02AA653 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A)
RAT-NU-1621-VLV-HSJ02AA654
NU HSJ02AA654 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE VENT SAMPLING VALVE
RAT-NU-1621-VLV-HSJ02AA655
NU HSJ02AA655 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK A)
RAT-NU-1621-VLV-HSJ02AA656
NU HSJ02AA656 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 VENT SAMPLING VALVE
RAT-NU-1621-VLV-HSJ02AA657
NU HSJ02AA657 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2 VENT SAMPLING VALVE
RAT-NU-1621-VLV-HSJ02AA658
NU HSJ02AA658 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 VENT SAMPLING VALVE
RAT-NU-1621-VLV-HSJ02AA659
NU HSJ02AA659 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4 VENT SAMPLING VALVE
RAT-NU-1622
AMMONIA STORAGE TANK A NITROGEN SYSTEM
RAT-NU-1622-VLV
AMMONIA STORAGE TANK A NITROGEN SYSTEM - VALVE
RAT-NU-1622-VLV-HSJ01AA839
NU HSJ01AA839 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET NITROGEN PURGE ISOLATION VALVE 1
RAT-NU-1622-VLV-HSJ01AA840
NU HSJ01AA840 ANHYDROUS AMMONIA STORAGE TANK A LIQUID AMMONIA OUTLET NITROGEN PURGE ISOLATION VALVE 2
RAT-NU-1622-VLV-HSJ01AA905
NU HSJ01AA905 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA SUPPLY NITROGEN PURGE ISOLATION VALVE 1
RAT-NU-1622-VLV-HSJ01AA906
NU HSJ01AA906 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA SUPPLY NITROGEN PURGE ISOLATION VALVE 2

RAT-NU-1622-VLV-HSJ01AA911
NU HSJ01AA911 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA VAPOUR RETURN TO OFFLOADING STATION NITROGEN PURGE ISOLATION VALVE 1
RAT-NU-1622-VLV-HSJ01AA912
NU HSJ01AA912 ANHYDROUS AMMONIA STORAGE TANK A AMMONIA VAPOUR RETURN TO OFFLOADING STATION NITROGEN PURGE ISOLATION VALVE 2
RAT-NU-1622-VLV-HSJ01AA915
NU HSJ01AA915 AMMONIA FORWARDING MANIFOLD LIQUID RETURN (TO ANHYDROUS AMMONIA STORAGE TANK A) NITROGEN PURGE ISOLATION VALVE 1
RAT-NU-1622-VLV-HSJ01AA916
NU HSJ01AA916 AMMONIA FORWARDING MANIFOLD LIQUID RETURN (TO ANHYDROUS AMMONIA STORAGE TANK A) NITROGEN PURGE ISOLATION VALVE 2
RAT-NU-1623
AMMONIA STORAGE TANK A AIR INSTRUMENT SYSTEM
RAT-NU-1623-APN
AMMONIA STORAGE TANK A AIR INSTRUMENT SYSTEM - PNEUMATIC ACTUATOR
RAT-NU-1623-APN-QEB01AA130
NU QEB01AA130 ANYDROUS AMMONIA STORAGE TANK A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 ACTUATOR
RAT-NU-1623-APN-QEB01AA131
NU QEB01AA131 ANYDROUS AMMONIA STORAGE TANK A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 ACTUATOR
RAT-NU-1623-SOL
AMMONIA STORAGE TANK A AIR INSTRUMENT SYSTEM - SOLENOID
RAT-NU-1623-SOL-QEB01AA130
NU QEB01AA130 ANYDROUS AMMONIA STORAGE TANK A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 SOLENOID
RAT-NU-1623-SOL-QEB01AA131
NU QEB01AA131 ANYDROUS AMMONIA STORAGE TANK A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 SOLENOID
RAT-NU-1623-SWX
AMMONIA STORAGE TANK A AIR INSTRUMENT SYSTEM - AUXILIARY SWITCH
RAT-NU-1623-SWX-QEB01CG130
NU QEB01CG130 ANYDROUS AMMONIA STORAGE TANK A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 LIMIT SWITCH
RAT-NU-1623-SWX-QEB01CG131
NU QEB01CG131 ANYDROUS AMMONIA STORAGE TANK A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 LIMIT SWITCH
RAT-NU-1623-VLV
AMMONIA STORAGE TANK A AIR INSTRUMENT SYSTEM - VALVE
RAT-NU-1623-VLV-QEB01AA032
NU QEB01AA032 ANHYDROUS AMMONIA STORAGE TANK A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 1
RAT-NU-1623-VLV-QEB01AA033
NU QEB01AA033 ANHYDROUS AMMONIA STORAGE TANK A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 2
RAT-NU-1623-VLV-QEB01AA034
NU QEB01AA034 ANHYDROUS AMMONIA STORAGE TANK A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 3
RAT-NU-1623-VLV-QEB01AA035
NU QEB01AA035 ANHYDROUS AMMONIA STORAGE TANK A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 4
RAT-NU-1623-VLV-QEB01AA036
NU QEB01AA036 ANHYDROUS AMMONIA STORAGE TANK A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 5
RAT-NU-1623-VLV-QEB01AA037
NU QEB01AA037 ANHYDROUS AMMONIA STORAGE TANK A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 6 (SPARE)
RAT-NU-1623-VLV-QEB01AA117

NU QEB01AA117 ANYDROUS AMMONIA STORAGE TANK A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 AIR SUPPLY ISOLATION VALVE
RAT-NU-1623-VLV-QEB01AA118
NU QEB01AA118 ANYDROUS AMMONIA STORAGE TANK A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 AIR SUPPLY ISOLATION VALVE
RAT-NU-1623-VLV-QEB01AA130
NU QEB01AA130 ANYDROUS AMMONIA STORAGE TANK A SIS INSTRUMENT AIR SHUT-OFF VALVE 1
RAT-NU-1623-VLV-QEB01AA131
NU QEB01AA131 ANYDROUS AMMONIA STORAGE TANK A SIS INSTRUMENT AIR SHUT-OFF VALVE 2
RAT-NU-1624
AMMONIA STORAGE TANK A SAFETY RELIEF SYSTEM
RAT-NU-1624-VLV
AMMONIA STORAGE TANK A SAFETY RELIEF SYSTEM - VALVE
RAT-NU-1624-VLV-HSJ01AA260
NU HSJ01AA260 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 1
RAT-NU-1624-VLV-HSJ01AA261
NU HSJ01AA261 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 2
RAT-NU-1624-VLV-HSJ01AA557
NU HSJ01AA557 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 1 INLET ISOLATION VALVE 2
RAT-NU-1624-VLV-HSJ01AA558
NU HSJ01AA558 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 1 INLET BLEED 2 ISOLATION VALVE 1
RAT-NU-1624-VLV-HSJ01AA559
NU HSJ01AA559 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 1 INLET BLEED 2 ISOLATION VALVE 2
RAT-NU-1624-VLV-HSJ01AA560
NU HSJ01AA560 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 2 INLET ISOLATION VALVE 2
RAT-NU-1624-VLV-HSJ01AA561
NU HSJ01AA561 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 2 INLET BLEED 2 ISOLATION VALVE 1
RAT-NU-1624-VLV-HSJ01AA562
NU HSJ01AA562 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 2 INLET BLEED 2 ISOLATION VALVE 2
RAT-NU-1624-VLV-HSJ01AA569
NU HSJ01AA569 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 1 VENT ISOLATION VALVE
RAT-NU-1624-VLV-HSJ01AA570
NU HSJ01AA570 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 2 VENT ISOLATION VALVE
RAT-NU-1624-VLV-HSJ01AA654
NU HSJ01AA654 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 1 VENT SAMPLING VALVE
RAT-NU-1624-VLV-HSJ01AA655
NU HSJ01AA655 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 2 VENT SAMPLING VALVE
RAT-NU-1624-VLV-HSJ01AA701
NU HSJ01AA701 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 1 INLET ISOLATION VALVE 1
RAT-NU-1624-VLV-HSJ01AA702
NU HSJ01AA702 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 1 INLET BLEED 1 ISOLATION VALVE 1
RAT-NU-1624-VLV-HSJ01AA703
NU HSJ01AA703 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 1 INLET BLEED 1 ISOLATION VALVE 2
RAT-NU-1624-VLV-HSJ01AA704
NU HSJ01AA704 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 2 INLET ISOLATION VALVE 1

RAT-NU-1624-VLV-HSJ01AA705
NU HSJ01AA705 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 2 INLET BLEED 1 ISOLATION VALVE 1
RAT-NU-1624-VLV-HSJ01AA706
NU HSJ01AA706 ANHYDROUS AMMONIA STORAGE TANK A SAFETY RELIEF VALVE 2 INLET BLEED 1 ISOLATION VALVE 2
RAT-NU-1625
AMMONIA STORAGE TANK B SYSTEM
RAT-NU-1625-APN
AMMONIA STORAGE TANK B SYSTEM - PNEUMATIC ACTUATOR
RAT-NU-1625-APN-HSJ01AA016
NU HSJ01AA016 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA SUPPLY ON/OFF VALVE ACTUATOR
RAT-NU-1625-APN-HSJ01AA037
NU HSJ01AA037 ANHYDROUS AMMONIA STORAGE TANK B VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ON/OFF VALVE ACTUATOR
RAT-NU-1625-APN-HSJ01AA042
NU HSJ01AA042 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET SHUT-OFF VALVE 1 ACTUATOR
RAT-NU-1625-APN-HSJ01AA061
NU HSJ01AA061 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK B) ON/OFF VALVE ACTUATOR
RAT-NU-1625-APN-HSJ01AA143
NU HSJ01AA143 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET SHUT-OFF VALVE 2 ACTUATOR
RAT-NU-1625-LVS
AMMONIA STORAGE TANK B SYSTEM - LEVEL SWITCH
RAT-NU-1625-LVS-HSJ01CL018
NU HSJ01CL018 ANHYDROUS AMMONIA STORAGE TANK B LOW LEVEL SWITCH
RAT-NU-1625-PGS
AMMONIA STORAGE TANK B SYSTEM - PRESSURE GAUGE
RAT-NU-1625-PGS-HSJ01CP004
NU HSJ01CP004 ANHYDROUS AMMONIA STORAGE TANK B PRESSURE INDICATOR
RAT-NU-1625-SOL
AMMONIA STORAGE TANK B SYSTEM - SOLENOID
RAT-NU-1625-SOL-HSJ01AA016
NU HSJ01AA016 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA SUPPLY ON/OFF VALVE SOLENOID
RAT-NU-1625-SOL-HSJ01AA037
NU HSJ01AA037 ANHYDROUS AMMONIA STORAGE TANK B VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ON/OFF VALVE SOLENOID
RAT-NU-1625-SOL-HSJ01AA042
NU HSJ01AA042 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET SHUT-OFF VALVE 1 SOLENOID
RAT-NU-1625-SOL-HSJ01AA061
NU HSJ01AA061 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK B) ON/OFF VALVE SOLENOID
RAT-NU-1625-SOL-HSJ01AA143
NU HSJ01AA143 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET SHUT-OFF VALVE 2 SOLENOID
RAT-NU-1625-SWX
AMMONIA STORAGE TANK B AIR INSTRUMENT SYSTEM - AUXILIARY SWITCH
RAT-NU-1625-SWX-HSJ01CG016
NU HSJ01CG016 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA SUPPLY ON/OFF LIMIT SWITCH

RAT-NU-1625-SWX-HSJ01CG037
NU HSJ01CG037 ANHYDROUS AMMONIA STORAGE TANK B VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ON/OFF VALVE LIMIT SWITCH
RAT-NU-1625-SWX-HSJ01CG042
NU HSJ01CG042 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET SHUT-OFF VALVE 1 LIMIT SWITCH
RAT-NU-1625-SWX-HSJ01CG061
NU HSJ01CG061 AMMONIA FORWARDING MANIFOLD LIQUID INLET (TO ANHYDROUS AMMONIA STORAGE TANK B)
RAT-NU-1625-SWX-HSJ01CG143
NU HSJ01CG143 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET SHUT-OFF VALVE 2 LIMIT SWITCH
RAT-NU-1625-TNK
AMMONIA STORAGE TANK B SYSTEM - TANK
RAT-NU-1625-TNK-HSJ01BB002
NU HSJ01BB002 ANYDROUS AMMONIA STORAGE TANK B
RAT-NU-1625-TXS
AMMONIA STORAGE TANK B SYSTEM - TRANSMITTER
RAT-NU-1625-TXS-HSJ01CL004
NU HSJ01CL004 ANHYDROUS AMMONIA STORAGE TANK B LEVEL TRANSMITTER 1
RAT-NU-1625-TXS-HSJ01CL005
NU HSJ01CL005 ANHYDROUS AMMONIA STORAGE TANK B LEVEL TRANSMITTER 2
RAT-NU-1625-TXS-HSJ01CL022
NU HSJ01CL022 ANYDROUS AMMONIA STORAGE TANK B LEVEL TRANSMITTER 3
RAT-NU-1625-TXS-HSJ01CL023
NU HSJ01CL023 ANYDROUS AMMONIA STORAGE TANK B LEVEL TRANSMITTER 4
RAT-NU-1625-TXS-HSJ01CP005
NU HSJ01CP005 ANHYDROUS AMMONIA STORAGE TANK B PRESSURE TRANSMITTER 1
RAT-NU-1625-TXS-HSJ01CP006
NU HSJ01CP006 ANHYDROUS AMMONIA STORAGE TANK B PRESSURE TRANSMITTER 2
RAT-NU-1625-VLV
AMMONIA STORAGE TANK B SYSTEM - VALVE
RAT-NU-1625-VLV-HSJ01AA016
NU HSJ01AA016 AMMONIA LIQUID TO TANK B - AUTOMATED BALL VALVE
RAT-NU-1625-VLV-HSJ01AA017
NU HSJ01AA017 STORAGE TANK B LIQUID FILL - EXCESS FLOW VALVE
RAT-NU-1625-VLV-HSJ01AA041
NU HSJ01AA041 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET (TO AMMONIA FORWARDING MANIFOLD) EXCESS FLOW CHECK VALVE
RAT-NU-1625-VLV-HSJ01AA042
NU HSJ01AA042 AMMONIA LIQUID FROM TANK B TO FORWARDING MANIFOLD - AUTOMATED BALL VALVE
RAT-NU-1625-VLV-HSJ01AA061
NU HSJ01AA061 AMMONIA LIQUID FROM FORWARDING MANIFOLD TO TANK B - AUTOMATED BALL VALVE
RAT-NU-1625-VLV-HSJ01AA062
NU HSJ01AA062 STORAGE TANK B LIQUID RETURN FROM FORWARDING PUMP - EXCESS FLOW VALVE
RAT-NU-1625-VLV-HSJ01AA137
NU HSJ01AA137 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA SUPPLY ISOLATION VALVE 1
RAT-NU-1625-VLV-HSJ01AA138

NU HSJ01AA138	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA SUPPLY ISOLATION VALVE 2
	RAT-NU-1625-VLV-HSJ01AA139
NU HSJ01AA139	ANHYDROUS AMMONIA STORAGE TANK B VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ISOLATION VALVE 1
	RAT-NU-1625-VLV-HSJ01AA140
NU HSJ01AA140	ANHYDROUS AMMONIA STORAGE TANK B VAPOUR AMMONIA RETURN TO OFFLOADING MANIFOLD ISOLATION VALVE 2
	RAT-NU-1625-VLV-HSJ01AA141
NU HSJ01AA141	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET ISOLATION VALVE 1
	RAT-NU-1625-VLV-HSJ01AA142
NU HSJ01AA142	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET ISOLATION VALVE 2
	RAT-NU-1625-VLV-HSJ01AA143
NU HSJ01AA143	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET SHUT-OFF VALVE 2
	RAT-NU-1625-VLV-HSJ01AA144
NU HSJ01AA144	LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK B) ISOLATION VALVE 2
	RAT-NU-1625-VLV-HSJ01AA145
NU HSJ01AA145	LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK B) ISOLATION VALVE 1
	RAT-NU-1625-VLV-HSJ01AA150
NU HSJ01AA150	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA RECIRCULATION LINE ISOLATION VALVE 1
	RAT-NU-1625-VLV-HSJ01AA151
NU HSJ01AA151	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA RECIRCULATION LINE ISOLATION VALVE 2
	RAT-NU-1625-VLV-HSJ01AA227
NU HSJ01AA227	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1625-VLV-HSJ01AA228
NU HSJ01AA228	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4
	RAT-NU-1625-VLV-HSJ01AA263
NU HSJ01AA263	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA SUPPLY LINE HYDROSTATIC RELIEF VALVE 1
	RAT-NU-1625-VLV-HSJ01AA288
NU HSJ01AA288	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA SUPPLY LINE HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1625-VLV-HSJ01AA290
NU HSJ01AA290	LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK B) HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1625-VLV-HSJ01AA291
NU HSJ01AA291	LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK B) HYDROSTATIC RELIEF VALVE 1
	RAT-NU-1625-VLV-HSJ01AA295
NU HSJ01AA295	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE
	RAT-NU-1625-VLV-HSJ01AA305
NU HSJ01AA305	ANHYDROUS AMMONIA STORAGE TANK B PRESSURE INDICATOR/TRANSMITTER 1 EXCESS FLOW CHECK VALVE
	RAT-NU-1625-VLV-HSJ01AA306
NU HSJ01AA306	ANHYDROUS AMMONIA STORAGE TANK B PRESSURE INDICATOR/TRANSMITTER 1 ISOLATION VALVE
	RAT-NU-1625-VLV-HSJ01AA307
NU HSJ01AA307	ANHYDROUS AMMONIA STORAGE TANK B PRESSURE TRANSMITTER 2 EXCESS FLOW CHECK VALVE
	RAT-NU-1625-VLV-HSJ01AA308
NU HSJ01AA308	ANHYDROUS AMMONIA STORAGE TANK B PRESSURE TRANSMITTER 2 ISOLATION VALVE

RAT-NU-1625-VLV-HSJ01AA432
NU HSJ01AA432 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET BLEED 2 ISOLATION VALVE 1
RAT-NU-1625-VLV-HSJ01AA488
NU HSJ01AA488 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET BLEED 2 ISOLATION VALVE 2
RAT-NU-1625-VLV-HSJ01AA581
NU HSJ01AA581 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK B)
RAT-NU-1625-VLV-HSJ01AA582
NU HSJ01AA582 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE VENT ISOLATION VALVE
RAT-NU-1625-VLV-HSJ01AA583
NU HSJ01AA583 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK B)
RAT-NU-1625-VLV-HSJ01AA586
NU HSJ01AA586 ANHYDROUS AMMONIA STORAGE TANK B VENT HEADER ISOLATION VALVE
RAT-NU-1625-VLV-HSJ01AA716
NU HSJ01AA716 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4 VENT ISOLATION VALVE
RAT-NU-1625-VLV-HSJ01AA717
NU HSJ01AA717 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2 VENT ISOLATION VALVE
RAT-NU-1625-VLV-HSJ01AA718
NU HSJ01AA718 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA SUPPLY LINE HYDROSTATIC RELIEF VALVE 1 VENT ISOLATION VALVE
RAT-NU-1625-VLV-HSJ01AA919
NU HSJ01AA919 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA SUPPLY BLEED TO VENT ISOLATION VALVE 1
RAT-NU-1625-VLV-HSJ01AA920
NU HSJ01AA920 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA SUPPLY BLEED TO VENT ISOLATION VALVE 2
RAT-NU-1625-VLV-HSJ01AA921
NU HSJ01AA921 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA VAPOUR RETURN TO OFFLOADING BLEED TO VENT ISOLATION VALVE 1
RAT-NU-1625-VLV-HSJ01AA922
NU HSJ01AA922 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA VAPOUR RETURN TO OFFLOADING BLEED TO VENT ISOLATION VALVE 2
RAT-NU-1625-VLV-HSJ01AA925
NU HSJ01AA925 AMMONIA FORWARDING MANIFOLD LIQUID RETURN (TO ANHYDROUS AMMONIA STORAGE TANK B) BLEED TO VENT ISOLATION VALVE 1
RAT-NU-1625-VLV-HSJ01AA926
NU HSJ01AA926 AMMONIA FORWARDING MANIFOLD LIQUID RETURN (TO ANHYDROUS AMMONIA STORAGE TANK B) BLEED TO VENT ISOLATION VALVE 2
RAT-NU-1625-VLV-HSJ01AA937
NU HSJ01AA937 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA RECIRCULATION LINE BLEED 1 ISOLATION VALVE 1
RAT-NU-1625-VLV-HSJ01AA938
NU HSJ01AA938 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA RECIRCULATION LINE BLEED 1 ISOLATION VALVE 2
RAT-NU-1625-VLV-HSJ01AA939
NU HSJ01AA939 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA RECIRCULATION LINE BLEED 2 ISOLATION VALVE 1
RAT-NU-1625-VLV-HSJ01AA940
NU HSJ01AA940 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA RECIRCULATION LINE BLEED 2 ISOLATION VALVE 2
RAT-NU-1625-VLV-HSJ01AA946
NU HSJ01AA946 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET DRAIN ISOLATION VALVE 1
RAT-NU-1625-VLV-HSJ01AA947

NU HSJ01AA947	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET DRAIN ISOLATION VALVE 2
	RAT-NU-1625-VLV-HSJ01AA966
NU HSJ01AA966	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET BLEED 1 ISOLATION VALVE 1
	RAT-NU-1625-VLV-HSJ01AA967
NU HSJ01AA967	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET BLEED 1 ISOLATION VALVE 2
	RAT-NU-1625-VLV-HSJ02AA296
NU HSJ02AA296	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1
	RAT-NU-1625-VLV-HSJ02AA298
NU HSJ02AA298	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3
	RAT-NU-1625-VLV-HSJ02AA508
NU HSJ02AA508	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 INLET ISOLATION VALVE
	RAT-NU-1625-VLV-HSJ02AA509
NU HSJ02AA509	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 VENT ISOLATION VALVE
	RAT-NU-1625-VLV-HSJ02AA510
NU HSJ02AA510	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2 INLET ISOLATION VALVE
	RAT-NU-1625-VLV-HSJ02AA511
NU HSJ02AA511	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 BLEED VALVE 2
	RAT-NU-1625-VLV-HSJ02AA512
NU HSJ02AA512	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 BLEED VALVE 1
	RAT-NU-1625-VLV-HSJ02AA513
NU HSJ02AA513	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2 BLEED VALVE 2
	RAT-NU-1625-VLV-HSJ02AA514
NU HSJ02AA514	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2 BLEED VALVE 1
	RAT-NU-1625-VLV-HSJ02AA522
NU HSJ02AA522	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 INLET ISOLATION VALVE
	RAT-NU-1625-VLV-HSJ02AA523
NU HSJ02AA523	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4 INLET ISOLATION VALVE
	RAT-NU-1625-VLV-HSJ02AA524
NU HSJ02AA524	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 BLEED VALVE 1
	RAT-NU-1625-VLV-HSJ02AA525
NU HSJ02AA525	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 BLEED VALVE 2
	RAT-NU-1625-VLV-HSJ02AA526
NU HSJ02AA526	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4 BLEED VALVE 1
	RAT-NU-1625-VLV-HSJ02AA527
NU HSJ02AA527	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4 BLEED VALVE 2
	RAT-NU-1625-VLV-HSJ02AA528
NU HSJ02AA528	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 VENT ISOLATION VALVE
	RAT-NU-1625-VLV-HSJ02AA546
NU HSJ02AA546	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 & 2 CHANGE-OVER 3-WAY VALVE
	RAT-NU-1625-VLV-HSJ02AA547
NU HSJ02AA547	ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 & 4 CHANGE-OVER 3-WAY VALVE

RAT-NU-1625-VLV-HSJ02AA660
NU HSJ02AA660 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA SUPPLY LINE HYDROSTATIC RELIEF VALVE 1 VENT SAMPLING VALVE
RAT-NU-1625-VLV-HSJ02AA661
NU HSJ02AA661 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA RECIRCULATION BLEED 2 SAMPLING VALVE
RAT-NU-1625-VLV-HSJ02AA662
NU HSJ02AA662 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK B)
RAT-NU-1625-VLV-HSJ02AA663
NU HSJ02AA663 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE VENT SAMPLING VALVE
RAT-NU-1625-VLV-HSJ02AA664
NU HSJ02AA664 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD (TO ANHYDROUS AMMONIA STORAGE TANK B)
RAT-NU-1625-VLV-HSJ02AA665
NU HSJ02AA665 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 1 VENT SAMPLING VALVE
RAT-NU-1625-VLV-HSJ02AA666
NU HSJ02AA666 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 2 VENT SAMPLING VALVE
RAT-NU-1625-VLV-HSJ02AA667
NU HSJ02AA667 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 3 VENT SAMPLING VALVE
RAT-NU-1625-VLV-HSJ02AA668
NU HSJ02AA668 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET HYDROSTATIC RELIEF VALVE 4 VENT SAMPLING VALVE
RAT-NU-1626
AMMONIA STORAGE TANK B NITROGEN SYSTEM
RAT-NU-1626-VLV
AMMONIA STORAGE TANK B NITROGEN SYSTEM - VALVE
RAT-NU-1626-VLV-HSJ01AA841
NU HSJ01AA841 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET NITROGEN PURGE ISOLATION VALVE 1
RAT-NU-1626-VLV-HSJ01AA842
NU HSJ01AA842 ANHYDROUS AMMONIA STORAGE TANK B LIQUID AMMONIA OUTLET NITROGEN PURGE ISOLATION VALVE 2
RAT-NU-1626-VLV-HSJ01AA917
NU HSJ01AA917 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA SUPPLY NITROGEN PURGE ISOLATION VALVE 1
RAT-NU-1626-VLV-HSJ01AA918
NU HSJ01AA918 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA SUPPLY NITROGEN PURGE ISOLATION VALVE 2
RAT-NU-1626-VLV-HSJ01AA923
NU HSJ01AA923 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA VAPOUR RETURN TO OFFLOADING STATION NITROGEN PURGE ISOLATION VALVE 1
RAT-NU-1626-VLV-HSJ01AA924
NU HSJ01AA924 ANHYDROUS AMMONIA STORAGE TANK B AMMONIA VAPOUR RETURN TO OFFLOADING STATION NITROGEN PURGE ISOLATION VALVE 2
RAT-NU-1626-VLV-HSJ01AA927
NU HSJ01AA927 AMMONIA FORWARDING MANIFOLD LIQUID RETURN (TO ANHYDROUS AMMONIA STORAGE TANK B) NITROGEN PURGE ISOLATION VALVE 1
RAT-NU-1626-VLV-HSJ01AA928
NU HSJ01AA928 AMMONIA FORWARDING MANIFOLD LIQUID RETURN (TO ANHYDROUS AMMONIA STORAGE TANK B) NITROGEN PURGE ISOLATION VALVE 2
RAT-NU-1627
AMMONIA STORAGE TANK B AIR INSTRUMENT SYSTEM
RAT-NU-1627-APN

AMMONIA STORAGE TANK B AIR INSTRUMENT SYSTEM - PNEUMATIC ACTUATOR
RAT-NU-1627-APN-QEB01AA132
NU QEB01AA132 ANYDROUS AMMONIA STORAGE TANK B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 ACTUATOR
RAT-NU-1627-APN-QEB01AA133
NU QEB01AA133 ANYDROUS AMMONIA STORAGE TANK B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 ACTUATOR
RAT-NU-1627-SOL
AMMONIA STORAGE TANK B AIR INSTRUMENT SYSTEM - SOLENOID
RAT-NU-1627-SOL-QEB01AA132
NU QEB01AA132 ANYDROUS AMMONIA STORAGE TANK B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 SOLENOID
RAT-NU-1627-SOL-QEB01AA133
NU QEB01AA133 ANYDROUS AMMONIA STORAGE TANK B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 SOLENOID
RAT-NU-1627-SWX
AMMONIA STORAGE TANK B AIR INSTRUMENT SYSTEM - AUXILIARY SWITCH
RAT-NU-1627-SWX-QEB01CG132
NU QEB01CG132 ANYDROUS AMMONIA STORAGE TANK B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 LIMIT SWITCH
RAT-NU-1627-SWX-QEB01CG133
NU QEB01CG133 ANYDROUS AMMONIA STORAGE TANK B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 LIMIT SWITCH
RAT-NU-1627-VLV
AMMONIA STORAGE TANK B AIR INSTRUMENT SYSTEM - VALVE
RAT-NU-1627-VLV-QEB01AA042
NU QEB01AA042 ANHYDROUS AMMONIA STORAGE TANK B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 1
RAT-NU-1627-VLV-QEB01AA043
NU QEB01AA043 ANHYDROUS AMMONIA STORAGE TANK B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 2
RAT-NU-1627-VLV-QEB01AA044
NU QEB01AA044 ANHYDROUS AMMONIA STORAGE TANK B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 3
RAT-NU-1627-VLV-QEB01AA045
NU QEB01AA045 ANHYDROUS AMMONIA STORAGE TANK B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 4
RAT-NU-1627-VLV-QEB01AA046
NU QEB01AA046 ANHYDROUS AMMONIA STORAGE TANK B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 5
RAT-NU-1627-VLV-QEB01AA047
NU QEB01AA047 ANHYDROUS AMMONIA STORAGE TANK B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 6 (SPARE)
RAT-NU-1627-VLV-QEB01AA119
NU QEB01AA119 ANYDROUS AMMONIA STORAGE TANK B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 AIR SUPPLY ISOLATION VALVE
RAT-NU-1627-VLV-QEB01AA120
NU QEB01AA120 ANYDROUS AMMONIA STORAGE TANK B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 AIR SUPPLY ISOLATION VALVE
RAT-NU-1627-VLV-QEB01AA132
NU QEB01AA132 ANYDROUS AMMONIA STORAGE TANK B SIS INSTRUMENT AIR SHUT-OFF VALVE 1
RAT-NU-1627-VLV-QEB01AA133
NU QEB01AA133 ANYDROUS AMMONIA STORAGE TANK B SIS INSTRUMENT AIR SHUT-OFF VALVE 2
RAT-NU-1628
AMMONIA STORAGE TANK B SAFETY RELIEF SYSTEM
RAT-NU-1628-VLV
AMMONIA STORAGE TANK B SAFETY RELIEF SYSTEM - VALVE
RAT-NU-1628-VLV-HSJ01AA264

NU HSJ01AA264	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 1
	RAT-NU-1628-VLV-HSJ01AA265
NU HSJ01AA265	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 2
	RAT-NU-1628-VLV-HSJ01AA572
NU HSJ01AA572	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 1 INLET ISOLATION VALVE 2
	RAT-NU-1628-VLV-HSJ01AA573
NU HSJ01AA573	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 1 INLET BLEED 2 ISOLATION VALVE 1
	RAT-NU-1628-VLV-HSJ01AA574
NU HSJ01AA574	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 1 INLET BLEED 2 ISOLATION VALVE 2
	RAT-NU-1628-VLV-HSJ01AA575
NU HSJ01AA575	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 2 INLET ISOLATION VALVE 2
	RAT-NU-1628-VLV-HSJ01AA576
NU HSJ01AA576	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 2 INLET BLEED 2 ISOLATION VALVE 1
	RAT-NU-1628-VLV-HSJ01AA577
NU HSJ01AA577	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 2 INLET BLEED 2 ISOLATION VALVE 2
	RAT-NU-1628-VLV-HSJ01AA584
NU HSJ01AA584	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 1 VENT ISOLATION VALVE
	RAT-NU-1628-VLV-HSJ01AA585
NU HSJ01AA585	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 2 VENT ISOLATION VALVE
	RAT-NU-1628-VLV-HSJ01AA657
NU HSJ01AA657	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 1 VENT SAMPLING VALVE
	RAT-NU-1628-VLV-HSJ01AA658
NU HSJ01AA658	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 2 VENT SAMPLING VALVE
	RAT-NU-1628-VLV-HSJ01AA710
NU HSJ01AA710	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 1 INLET ISOLATION VALVE 1
	RAT-NU-1628-VLV-HSJ01AA711
NU HSJ01AA711	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 1 INLET BLEED 1 ISOLATION VALVE 1
	RAT-NU-1628-VLV-HSJ01AA712
NU HSJ01AA712	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 1 INLET BLEED 1 ISOLATION VALVE 2
	RAT-NU-1628-VLV-HSJ01AA713
NU HSJ01AA713	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 2 INLET ISOLATION VALVE 1
	RAT-NU-1628-VLV-HSJ01AA714
NU HSJ01AA714	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 2 INLET BLEED 1 ISOLATION VALVE 1
	RAT-NU-1628-VLV-HSJ01AA715
NU HSJ01AA715	ANHYDROUS AMMONIA STORAGE TANK B SAFETY RELIEF VALVE 2 INLET BLEED 1 ISOLATION VALVE 2
	RAT-NU-163
	AMMONIA FORWARDING SYSTEM
	RAT-NU-1630
	AMMONIA FORWARDING MANIFOLD SYSTEM
	RAT-NU-1630-VLV
	AMMONIA FORWARDING MANIFOLD SYSTEM - VALVE
	RAT-NU-1630-VLV-HSJ01AA039
NU HSJ01AA039	LIQUID TO FORWARDING MANIFOLD ISOLATION - MANUAL BALL VALVE

RAT-NU-1630-VLV-HSJ01AA040
NU HSJ01AA040 LIQUID TO FORWARDING MANIFOLD ISOLATION - MANUAL BALL VALVE
RAT-NU-1630-VLV-HSJ01AA043
NU HSJ01AA043 LIQUID TO FORWARDING MANIFOLD ISOLATION - MANUAL BALL VALVE
RAT-NU-1630-VLV-HSJ01AA044
NU HSJ01AA044 LIQUID TO FORWARDING MANIFOLD ISOLATION - MANUAL BALL VALVE
RAT-NU-1630-VLV-HSJ01AA045
NU HSJ01AA045 LIQUID ISOLATION FUTURE CONNECTION - MANUAL BALL VALVE
RAT-NU-1630-VLV-HSJ01AA054
NU HSJ01AA054 LIQUID ISOLATION FUTURE CONNECTION - MANUAL BALL VALVE
RAT-NU-1630-VLV-HSJ01AA055
NU HSJ01AA055 LIQUID RETURN TO TANK A ISOLATION - MANUAL BALL VALVE
RAT-NU-1630-VLV-HSJ01AA056
NU HSJ01AA056 LIQUID RETURN TO TANK A ISOLATION - MANUAL BALL VALVE
RAT-NU-1630-VLV-HSJ01AA059
NU HSJ01AA059 LIQUID RETURN TO TANK B ISOLATION - MANUAL BALL VALVE
RAT-NU-1630-VLV-HSJ01AA060
NU HSJ01AA060 LIQUID RETURN TO TANK B ISOLATION - MANUAL BALL VALVE
RAT-NU-1630-VLV-HSJ01AA146
NU HSJ01AA146 LIQUID AMMONIA SUPPLY TO FORWARDING MANIFOLD SPARE CONNECTION ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ01AA147
NU HSJ01AA147 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD SPARE CONNECTION ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ01AA430
NU HSJ01AA430 LIQUID AMMONIA SUPPLY FROM ANHYDROUS AMMONIA STORAGE TANK A (TO FORWARDING PUMP) BLEED 1 VENT ISOLATION VALVE 1
RAT-NU-1630-VLV-HSJ01AA431
NU HSJ01AA431 LIQUID AMMONIA SUPPLY FROM ANHYDROUS AMMONIA STORAGE TANK A (TO FORWARDING PUMP) BLEED 1 VENT ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ01AA433
NU HSJ01AA433 LIQUID AMMONIA SUPPLY FROM ANHYDROUS AMMONIA STORAGE TANK B (TO FORWARDING PUMP) BLEED 1 VENT ISOLATION VALVE 1
RAT-NU-1630-VLV-HSJ01AA434
NU HSJ01AA434 LIQUID AMMONIA SUPPLY FROM ANHYDROUS AMMONIA STORAGE TANK B (TO FORWARDING PUMP) BLEED 1 VENT ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ01AA435
NU HSJ01AA435 LIQUID AMMONIA SUPPLY TO FORWARDING MANIFOLD SPARE CONNECTION BLEED TO VENT ISOLATION VALVE 1
RAT-NU-1630-VLV-HSJ01AA436
NU HSJ01AA436 LIQUID AMMONIA SUPPLY TO FORWARDING MANIFOLD SPARE CONNECTION BLEED TO VENT ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ01AA448
NU HSJ01AA448 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD SPARE CONNECTION BLEED TO VENT ISOLATION VALVE 1
RAT-NU-1630-VLV-HSJ01AA449
NU HSJ01AA449 LIQUID AMMONIA RETURN FROM FORWARDING MANIFOLD SPARE CONNECTION BLEED TO VENT ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ01AA450
NU HSJ01AA450 LIQUID AMMONIA RETURN FROM FORWARDING PUMP (TO ANHYDROUS AMMONIA STORAGE TANK A) BLEED 1 VENT ISOLATION VALVE 1
RAT-NU-1630-VLV-HSJ01AA451
NU HSJ01AA451 LIQUID AMMONIA RETURN FROM FORWARDING PUMP (TO ANHYDROUS AMMONIA STORAGE TANK A) BLEED 1 VENT ISOLATION VALVE 2

RAT-NU-1630-VLV-HSJ01AA452
NU HSJ01AA452 LIQUID AMMONIA RETURN FROM FORWARDING PUMP (TO ANHYDROUS AMMONIA STORAGE TANK B) BLEED 1 VENT ISOLATION VALVE 1
RAT-NU-1630-VLV-HSJ01AA453
NU HSJ01AA453 LIQUID AMMONIA RETURN FROM FORWARDING PUMP (TO ANHYDROUS AMMONIA STORAGE TANK B) BLEED 1 VENT ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ01AA843
NU HSJ01AA843 LIQUID AMMONIA RETURN FROM FORWARDING PUMP (TO ANHYDROUS AMMONIA STORAGE TANK A) BLEED 2 VENT ISOLATION VALVE 1
RAT-NU-1630-VLV-HSJ01AA844
NU HSJ01AA844 LIQUID AMMONIA RETURN FROM FORWARDING PUMP (TO ANHYDROUS AMMONIA STORAGE TANK A) BLEED 2 VENT ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ01AA845
NU HSJ01AA845 LIQUID AMMONIA RETURN FROM FORWARDING PUMP (TO ANHYDROUS AMMONIA STORAGE TANK B) BLEED 2 VENT ISOLATION VALVE 1
RAT-NU-1630-VLV-HSJ01AA846
NU HSJ01AA846 LIQUID AMMONIA RETURN FROM FORWARDING PUMP (TO ANHYDROUS AMMONIA STORAGE TANK B) BLEED 2 VENT ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ01AA929
NU HSJ01AA929 LIQUID AMMONIA SUPPLY FROM ANHYDROUS AMMONIA STORAGE TANK A (TO FORWARDING PUMP) BLEED 1 VENT ISOLATION VALVE 1
RAT-NU-1630-VLV-HSJ01AA930
NU HSJ01AA930 LIQUID AMMONIA SUPPLY FROM ANHYDROUS AMMONIA STORAGE TANK A (TO FORWARDING PUMP) BLEED 1 VENT ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ01AA931
NU HSJ01AA931 LIQUID AMMONIA SUPPLY FROM ANHYDROUS AMMONIA STORAGE TANK B (TO FORWARDING PUMP) BLEED 1 VENT ISOLATION VALVE 1
RAT-NU-1630-VLV-HSJ01AA932
NU HSJ01AA932 LIQUID AMMONIA SUPPLY FROM ANHYDROUS AMMONIA STORAGE TANK B (TO FORWARDING PUMP) BLEED 1 VENT ISOLATION VALVE 2
RAT-NU-1630-VLV-HSJ02AA529
NU HSJ02AA529 LIQUID AMMONIA SUPPLY / RETURN TO/FROM FORWARDING PUMP (FROM/TO ANHYDROUS AMMONIA STORAGE TANK A)
RAT-NU-1630-VLV-HSJ02AA530
NU HSJ02AA530 LIQUID AMMONIA SUPPLY / RETURN TO/FROM FORWARDING PUMP (FROM/TO ANHYDROUS AMMONIA STORAGE TANK B)
RAT-NU-1630-VLV-HSJ02AA669
NU HSJ02AA669 LIQUID AMMONIA SUPPLY / RETURN TO/FROM FORWARDING PUMP (FROM/TO ANHYDROUS AMMONIA STORAGE TANK A)
RAT-NU-1630-VLV-HSJ02AA670
NU HSJ02AA670 LIQUID AMMONIA SUPPLY / RETURN TO/FROM FORWARDING PUMP (FROM/TO ANHYDROUS AMMONIA STORAGE TANK B)
RAT-NU-1631
AMMONIA FORWARDING PUMP A SYSTEM
RAT-NU-1631-ESB
AMMONIA FORWARDING PUMP - ESB
RAT-NU-1631-ESB-HSJ01AP003
NU HSJ01AP003 AMMONIA FORWARDING PUMP A MOTOR E-STOP
RAT-NU-1631-HTR
AMMONIA FORWARDING PUMP A SYSTEM - HEATER
RAT-NU-1631-HTR-HSJ01AE003
NU HSJ01AE003 AMMONIA FORWARDING PUMP A MOTOR ANTI CONDENSATION HEATER
RAT-NU-1631-MTR
AMMONIA FORWARDING PUMP A SYSTEM - MOTOR
RAT-NU-1631-MTR-HSJ01AE003

NU HSJ01AE003	AMMONIA FORWARDING PUMP A MOTOR
	RAT-NU-1631-PGS
	AMMONIA FORWARDING PUMP A SYSTEM - PRESSURE GAUGE
	RAT-NU-1631-PGS-HSJ01CP009
NU HSJ01CP009	AMMONIA FORWARDING PUMP A INLET PRESSURE INDICATOR
	RAT-NU-1631-PGS-HSJ01CP010
NU HSJ01CP010	AMMONIA FORWARDING PUMP A OUTLET PRESSURE INDICATOR
	RAT-NU-1631-PMP
	AMMONIA FORWARDING PUMP A SYSTEM - PUMP
	RAT-NU-1631-PMP-HSJ01AP003
NU HSJ01AP003	AMMONIA FORWARDING PUMP A
	RAT-NU-1631-SWT
	AMMONIA FORWARDING PUMP A SYSTEM - SWITCH
	RAT-NU-1631-SWT-HSJ01CF001
NU HSJ01CF001	AMMONIA FORWARDING PUMP A INLET LOW FLOW SWITCH
	RAT-NU-1631-SWT-HSJ01GS001
NU HSJ01GS001	AMMONIA FORWARDING PUMP A MOTOR ISOLATOR
	RAT-NU-1631-TCO
	AMMONIA FORWARDING PUMP A SYSTEM - THERMOCOUPLE
	RAT-NU-1631-TCO-HSJ01CT103
NU HSJ01CT103	AMMONIA FORWARDING PUMP A MOTOR THERMISTOR
	RAT-NU-1631-TXS
	AMMONIA FORWARDING PUMP A SYSTEM - TRANSMITTER
	RAT-NU-1631-TXS-HSJ01CP008
NU HSJ01CP008	AMMONIA FORWARDING PUMP A INLET STRAINER DIFFERENTIAL PRESSURE TRANSMITTER
	RAT-NU-1631-VLV
	AMMONIA FORWARDING PUMP A SYSTEM - VALVE
	RAT-NU-1631-VLV-HSJ01AA046
NU HSJ01AA046	AMMONIA FORWARDING PUMP A INLET ISOLATION VALVE 1
	RAT-NU-1631-VLV-HSJ01AA047
NU HSJ01AA047	AMMONIA FORWARDING PUMP A INLET ISOLATION VALVE 2
	RAT-NU-1631-VLV-HSJ01AA048
NU HSJ01AA048	AMMONIA FORWARDING PUMP A OUTLET CHECK VALVE
	RAT-NU-1631-VLV-HSJ01AA049
NU HSJ01AA049	AMMONIA FORWARDING PUMP A OUTLET ISOLATION VALVE 1
	RAT-NU-1631-VLV-HSJ01AA050
NU HSJ01AA050	AMMONIA FORWARDING PUMP A OUTLET ISOLATION VALVE 2
	RAT-NU-1631-VLV-HSJ01AA051
NU HSJ01AA051	AMMONIA FORWARDING PUMP A MINIMUM FLOW LINE CHECK VALVE
	RAT-NU-1631-VLV-HSJ01AA052
NU HSJ01AA052	AMMONIA FORWARDING PUMP A MINIMUM FLOW LINE ISOLATION VALVE 1
	RAT-NU-1631-VLV-HSJ01AA053
NU HSJ01AA053	AMMONIA FORWARDING PUMP A MINIMUM FLOW LINE ISOLATION VALVE 2
	RAT-NU-1631-VLV-HSJ01AA071

NU HSJ01AA071	AMMONIA FORWARDING PUMP A BYPASS CHECK VALVE
	RAT-NU-1631-VLV-HSJ01AA123
NU HSJ01AA123	AMMONIA FORWARDING PUMP A MINIMUM FLOW LINE SELF REGULATING VALVE
	RAT-NU-1631-VLV-HSJ01AA268
NU HSJ01AA268	AMMONIA FORWARDING PUMP A OUTLET HYDROSTATIC RELIEF VALVE
	RAT-NU-1631-VLV-HSJ01AA269
NU HSJ01AA269	AMMONIA FORWARDING PUMP A MINIMUM FLOW LINE HYDROSTATIC RELIEF VALVE
	RAT-NU-1631-VLV-HSJ01AA310
NU HSJ01AA310	AMMONIA FORWARDING PUMP A INLET STRAINER DIFFERENTIAL PRESSURE TRANSMITTER INLET ISOLATION VALVE
	RAT-NU-1631-VLV-HSJ01AA311
NU HSJ01AA311	AMMONIA FORWARDING PUMP A INLET STRAINER DIFFERENTIAL PRESSURE TRANSMITTER OUTLET ISOLATION VALVE
	RAT-NU-1631-VLV-HSJ01AA312
NU HSJ01AA312	AMMONIA FORWARDING PUMP A INLET PRESSURE INDICATOR ISOLATION VALVE
	RAT-NU-1631-VLV-HSJ01AA313
NU HSJ01AA313	AMMONIA FORWARDING PUMP A OUTLET PRESSURE INDICATOR ISOLATION VALVE
	RAT-NU-1631-VLV-HSJ01AA437
NU HSJ01AA437	AMMONIA FORWARDING PUMP A INLET LINE DRAIN ISOLATION VALVE 1
	RAT-NU-1631-VLV-HSJ01AA438
NU HSJ01AA438	AMMONIA FORWARDING PUMP A INLET LINE DRAIN ISOLATION VALVE 2
	RAT-NU-1631-VLV-HSJ01AA439
NU HSJ01AA439	AMMONIA FORWARDING PUMP A INLET STRAINER DRAIN ISOLATION VALVE 1
	RAT-NU-1631-VLV-HSJ01AA440
NU HSJ01AA440	AMMONIA FORWARDING PUMP A INLET STRAINER DRAIN ISOLATION VALVE 2
	RAT-NU-1631-VLV-HSJ01AA441
NU HSJ01AA441	AMMONIA FORWARDING PUMP A INLET LINE DRAIN ISOLATION VALVE 3
	RAT-NU-1631-VLV-HSJ01AA442
NU HSJ01AA442	AMMONIA FORWARDING PUMP A OUTLET LINE DRAIN ISOLATION VALVE 1
	RAT-NU-1631-VLV-HSJ01AA443
NU HSJ01AA443	AMMONIA FORWARDING PUMP A OUTLET LINE DRAIN ISOLATION VALVE 2
	RAT-NU-1631-VLV-HSJ01AA444
NU HSJ01AA444	AMMONIA FORWARDING PUMP A OUTLET LINE DRAIN ISOLATION VALVE 3
	RAT-NU-1631-VLV-HSJ01AA445
NU HSJ01AA445	AMMONIA FORWARDING PUMP A OUTLET LINE DRAIN ISOLATION VALVE 4
	RAT-NU-1631-VLV-HSJ01AA446
NU HSJ01AA446	AMMONIA FORWARDING PUMP A MINIMUM FLOW LINE DRAIN ISOLATION VALVE 1
	RAT-NU-1631-VLV-HSJ01AA447
NU HSJ01AA447	AMMONIA FORWARDING PUMP A MINIMUM FLOW LINE DRAIN ISOLATION VALVE 2
	RAT-NU-1631-VLV-HSJ01AA489
NU HSJ01AA489	AMMONIA FORWARDING PUMP A INLET LINE DRAIN ISOLATION VALVE 4
	RAT-NU-1631-VLV-HSJ01AA609
NU HSJ01AA609	AMMONIA FORWARDING PUMP A SKID DRAIN HEADER ISOLATION VALVE
	RAT-NU-1631-VLV-HSJ01AA663
NU HSJ01AA663	AMMONIA FORWARDING PUMP A SKID DRAIN HEADER SAMPLING VALVE
	RAT-NU-1631-VLV-HSJ01AA809

NU HSJ01AA809	AMMONIA FORWARDING PUMP A INLET NITROGEN PURGE ISOLATION VALVE 1
	RAT-NU-1631-VLV-HSJ01AA810
NU HSJ01AA810	AMMONIA FORWARDING PUMP A INLET NITROGEN PURGE ISOLATION VALVE 2
	RAT-NU-1631-VLV-HSJ01AA970
NU HSJ01AA970	AMMONIA FORWARDING PUMP A INLET STRAINER DRAIN ISOLATION VALVE 3
	RAT-NU-1631-VLV-HSJ02AA531
NU HSJ02AA531	AMMONIA FORWARDING PUMP A MINIMUM FLOW LINE HYDROSTATIC RELIEF VALVE DRAIN ISOLATION VALVE 1
	RAT-NU-1631-VLV-HSJ02AA532
NU HSJ02AA532	AMMONIA FORWARDING PUMP A MINIMUM FLOW LINE HYDROSTATIC RELIEF VALVE DRAIN ISOLATION VALVE 2
	RAT-NU-1632
	AMMONIA FORWARDING PUMP B SYSTEM
	RAT-NU-1632-ESB
	AMMONIA FORWARDING PUMP B - ESB
	RAT-NU-1632-ESB-HSJ01AP004
NU HSJ01AP004	AMMONIA FORWARDING PUMP B MOTOR E-STOP
	RAT-NU-1632-HTR
	AMMONIA FORWARDING PUMP B SYSTEM - HEATER
	RAT-NU-1632-HTR-HSJ01AE004
NU HSJ01AE004	AMMONIA FORWARDING PUMP B MOTOR ANTI CONDENSATION HEATER
	RAT-NU-1632-MTR
	AMMONIA FORWARDING PUMP B SYSTEM - MOTOR
	RAT-NU-1632-MTR-HSJ01AE004
NU HSJ01AE004	AMMONIA FORWARDING PUMP B MOTOR
	RAT-NU-1632-PGS
	AMMONIA FORWARDING PUMP B SYSTEM - PRESSURE GAUGE
	RAT-NU-1632-PGS-HSJ01CP012
NU HSJ01CP012	AMMONIA FORWARDING PUMP B INLET PRESSURE INDICATOR
	RAT-NU-1632-PGS-HSJ01CP013
NU HSJ01CP013	AMMONIA FORWARDING PUMP B OUTLET PRESSURE INDICATOR
	RAT-NU-1632-PMP
	AMMONIA FORWARDING PUMP B SYSTEM - PUMP
	RAT-NU-1632-PMP-HSJ01AP004
NU HSJ01AP004	AMMONIA FORWARDING PUMP B
	RAT-NU-1632-SWT
	AMMONIA FORWARDING PUMP B SYSTEM - SWITCH
	RAT-NU-1632-SWT-HSJ01CF002
NU HSJ01CF002	AMMONIA FORWARDING PUMP B INLET LOW FLOW SWITCH
	RAT-NU-1632-SWT-HSJ01GS002
NU HSJ01GS002	AMMONIA FORWARDING PUMP B MOTOR ISOLATOR
	RAT-NU-1632-TCO
	AMMONIA FORWARDING PUMP B SYSTEM - THERMOCOUPLE
	RAT-NU-1632-TCO-HSJ01CT104
NU HSJ01CT104	AMMONIA FORWARDING PUMP B MOTOR THERMISTOR
	RAT-NU-1632-TXS

AMMONIA FORWARDING PUMP B SYSTEM - TRANSMITTER
RAT-NU-1632-TXS-HSJ01CP011
NU HSJ01CP011 AMMONIA FORWARDING PUMP B INLET STRAINER DIFFERENTIAL PRESSURE TRANSMITTER
RAT-NU-1632-VLV
AMMONIA FORWARDING PUMP B SYSTEM - VALVE
RAT-NU-1632-VLV-HSJ01AA063
NU HSJ01AA063 AMMONIA FORWARDING PUMP B INLET ISOLATION VALVE 1
RAT-NU-1632-VLV-HSJ01AA064
NU HSJ01AA064 AMMONIA FORWARDING PUMP B INLET ISOLATION VALVE 2
RAT-NU-1632-VLV-HSJ01AA065
NU HSJ01AA065 AMMONIA FORWARDING PUMP B OUTLET CHECK VALVE
RAT-NU-1632-VLV-HSJ01AA066
NU HSJ01AA066 AMMONIA FORWARDING PUMP B OUTLET ISOLATION VALVE 1
RAT-NU-1632-VLV-HSJ01AA067
NU HSJ01AA067 AMMONIA FORWARDING PUMP B OUTLET ISOLATION VALVE 2
RAT-NU-1632-VLV-HSJ01AA068
NU HSJ01AA068 AMMONIA FORWARDING PUMP B MINIMUM FLOW LINE CHECK VALVE
RAT-NU-1632-VLV-HSJ01AA069
NU HSJ01AA069 AMMONIA FORWARDING PUMP B MINIMUM FLOW LINE ISOLATION VALVE 1
RAT-NU-1632-VLV-HSJ01AA070
NU HSJ01AA070 AMMONIA FORWARDING PUMP B MINIMUM FLOW LINE ISOLATION VALVE 2
RAT-NU-1632-VLV-HSJ01AA072
NU HSJ01AA072 AMMONIA FORWARDING PUMP B BYPASS CHECK VALVE
RAT-NU-1632-VLV-HSJ01AA124
NU HSJ01AA124 AMMONIA FORWARDING PUMP B MINIMUM FLOW LINE SELF REGULATING VALVE
RAT-NU-1632-VLV-HSJ01AA271
NU HSJ01AA271 AMMONIA FORWARDING PUMP B OUTLET HYDROSTATIC RELIEF VALVE
RAT-NU-1632-VLV-HSJ01AA272
NU HSJ01AA272 AMMONIA FORWARDING PUMP B MINIMUM FLOW LINE HYDROSTATIC RELIEF VALVE
RAT-NU-1632-VLV-HSJ01AA314
NU HSJ01AA314 AMMONIA FORWARDING PUMP B INLET STRAINER DIFFERENTIAL PRESSURE TRANSMITTER INLET ISOLATION VALVE
RAT-NU-1632-VLV-HSJ01AA315
NU HSJ01AA315 AMMONIA FORWARDING PUMP B INLET STRAINER DIFFERENTIAL PRESSURE TRANSMITTER OUTLET ISOLATION VALVE
RAT-NU-1632-VLV-HSJ01AA316
NU HSJ01AA316 AMMONIA FORWARDING PUMP B INLET PRESSURE INDICATOR ISOLATION VALVE
RAT-NU-1632-VLV-HSJ01AA317
NU HSJ01AA317 AMMONIA FORWARDING PUMP B OUTLET PRESSURE INDICATOR ISOLATION VALVE
RAT-NU-1632-VLV-HSJ01AA454
NU HSJ01AA454 AMMONIA FORWARDING PUMP B INLET LINE DRAIN ISOLATION VALVE 1
RAT-NU-1632-VLV-HSJ01AA455
NU HSJ01AA455 AMMONIA FORWARDING PUMP B INLET LINE DRAIN ISOLATION VALVE 2
RAT-NU-1632-VLV-HSJ01AA456
NU HSJ01AA456 AMMONIA FORWARDING PUMP B INLET STRAINER DRAIN ISOLATION VALVE 1
RAT-NU-1632-VLV-HSJ01AA457

NU HSJ01AA457	AMMONIA FORWARDING PUMP B INLET STRAINER DRAIN ISOLATION VALVE 2
	RAT-NU-1632-VLV-HSJ01AA458
NU HSJ01AA458	AMMONIA FORWARDING PUMP B INLET LINE DRAIN ISOLATION VALVE 3
	RAT-NU-1632-VLV-HSJ01AA459
NU HSJ01AA459	AMMONIA FORWARDING PUMP B OUTLET LINE DRAIN ISOLATION VALVE 1
	RAT-NU-1632-VLV-HSJ01AA460
NU HSJ01AA460	AMMONIA FORWARDING PUMP B OUTLET LINE DRAIN ISOLATION VALVE 2
	RAT-NU-1632-VLV-HSJ01AA461
NU HSJ01AA461	AMMONIA FORWARDING PUMP B OUTLET LINE DRAIN ISOLATION VALVE 3
	RAT-NU-1632-VLV-HSJ01AA462
NU HSJ01AA462	AMMONIA FORWARDING PUMP B OUTLET LINE DRAIN ISOLATION VALVE 4
	RAT-NU-1632-VLV-HSJ01AA463
NU HSJ01AA463	AMMONIA FORWARDING PUMP B MINIMUM FLOW LINE DRAIN ISOLATION VALVE 1
	RAT-NU-1632-VLV-HSJ01AA464
NU HSJ01AA464	AMMONIA FORWARDING PUMP B MINIMUM FLOW LINE DRAIN ISOLATION VALVE 2
	RAT-NU-1632-VLV-HSJ01AA490
NU HSJ01AA490	AMMONIA FORWARDING PUMP B INLET LINE DRAIN ISOLATION VALVE 4
	RAT-NU-1632-VLV-HSJ01AA613
NU HSJ01AA613	AMMONIA FORWARDING PUMP B SKID DRAIN HEADER ISOLATION VALVE
	RAT-NU-1632-VLV-HSJ01AA614
NU HSJ01AA614	AMMONIA FORWARDING PUMP B SKID DRAIN HEADER VENT ISOLATION VALVE
	RAT-NU-1632-VLV-HSJ01AA666
NU HSJ01AA666	AMMONIA FORWARDING PUMP B SKID DRAIN HEADER SAMPLING VALVE
	RAT-NU-1632-VLV-HSJ01AA811
NU HSJ01AA811	AMMONIA FORWARDING PUMP B INLET NITROGEN PURGE ISOLATION VALVE 1
	RAT-NU-1632-VLV-HSJ01AA812
NU HSJ01AA812	AMMONIA FORWARDING PUMP B INLET NITROGEN PURGE ISOLATION VALVE 2
	RAT-NU-1632-VLV-HSJ01AA971
NU HSJ01AA971	AMMONIA FORWARDING PUMP B INLET STRAINER DRAIN ISOLATION VALVE 3
	RAT-NU-1632-VLV-HSJ02AA533
NU HSJ02AA533	AMMONIA FORWARDING PUMP B MINIMUM FLOW LINE HYDROSTATIC RELIEF VALVE DRAIN ISOLATION VALVE 1
	RAT-NU-1632-VLV-HSJ02AA534
NU HSJ02AA534	AMMONIA FORWARDING PUMP B MINIMUM FLOW LINE HYDROSTATIC RELIEF VALVE DRAIN ISOLATION VALVE 2
	RAT-NU-1633
	AMMONIA FORWARDING PUMP SUPPLY, OUTLET AND RETURN HEADER SYSTEM
	RAT-NU-1633-TXS
	AMMONIA FORWARDING PUMP SUPPLY, OUTLET AND RETURN HEADER - TRANSMITTER
	RAT-NU-1633-TXS-HSJ01CP007
NU HSJ01CP007	AMMONIA FORWARDING PUMP SUPPLY HEADER PRESSURE TRANSMITTER 1
	RAT-NU-1633-TXS-HSJ01CP014
NU HSJ01CP014	AMMONIA FORWARDING PUMPS OUTLET HEADER PRESSURE TRANSMITTER 1
	RAT-NU-1633-TXS-HSJ01CP015
NU HSJ01CP015	AMMONIA FORWARDING PUMPS OUTLET HEADER PRESSURE TRANSMITTER 2
	RAT-NU-1633-TXS-HSJ01CP021

NU HSJ01CP021	AMMONIA FORWARDING PUMP SUPPLY HEADER PRESSURE TRANSMITTER 2
	RAT-NU-1633-VLV
	AMMONIA FORWARDING PUMP SUPPLY, OUTLET AND RETURN HEADER SYSTEM - VALVE
	RAT-NU-1633-VLV-HSJ01AA267
NU HSJ01AA267	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1633-VLV-HSJ01AA270
NU HSJ01AA270	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 1
	RAT-NU-1633-VLV-HSJ01AA273
NU HSJ01AA273	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1633-VLV-HSJ01AA292
NU HSJ01AA292	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 1
	RAT-NU-1633-VLV-HSJ01AA293
NU HSJ01AA293	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 1
	RAT-NU-1633-VLV-HSJ01AA294
NU HSJ01AA294	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1633-VLV-HSJ01AA309
NU HSJ01AA309	AMMONIA FORWARDING PUMP SUPPLY HEADER PRESSURE TRANSMITTER 1 ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA318
NU HSJ01AA318	AMMONIA FORWARDING PUMPS OUTLET HEADER PRESSURE TRANSMITTER 1 ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA319
NU HSJ01AA319	AMMONIA FORWARDING PUMPS OUTLET HEADER PRESSURE TRANSMITTER 2 ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA344
NU HSJ01AA344	AMMONIA FORWARDING PUMP SUPPLY HEADER PRESSURE TRANSMITTER 2 ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA533
NU HSJ01AA533	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE CHANGEOVER 3-WAY VALVE
	RAT-NU-1633-VLV-HSJ01AA534
NU HSJ01AA534	AMMONIA FORWARDING PUMP OUTLET HEADER HYDROSTATIC RELIEF VALVE CHANGEOVER 3-WAY VALVE
	RAT-NU-1633-VLV-HSJ01AA535
NU HSJ01AA535	AMMONIA FORWARDING PUMP B MINIMUM FLOW LINE HYDROSTATIC RELIEF VALVE CHANGEOVER 3-WAY VALVE
	RAT-NU-1633-VLV-HSJ01AA587
NU HSJ01AA587	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 1 INLET ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA588
NU HSJ01AA588	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 1 DRAIN ISOLATION VALVE 1
	RAT-NU-1633-VLV-HSJ01AA589
NU HSJ01AA589	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 1 DRAIN ISOLATION VALVE 2
	RAT-NU-1633-VLV-HSJ01AA590
NU HSJ01AA590	AMMONIA FORWARDING MANIFOLD OUTLET HYDROSTATIC RELIEF VALVE 2 INLET ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA591
NU HSJ01AA591	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 2 DRAIN ISOLATION VALVE 1
	RAT-NU-1633-VLV-HSJ01AA592
NU HSJ01AA592	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 2 DRAIN ISOLATION VALVE 2
	RAT-NU-1633-VLV-HSJ01AA593

NU HSJ01AA593	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 1 ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA594
NU HSJ01AA594	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 1 DRAIN VALVE 1
	RAT-NU-1633-VLV-HSJ01AA595
NU HSJ01AA595	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 1 DRAIN VALVE 2
	RAT-NU-1633-VLV-HSJ01AA596
NU HSJ01AA596	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 2 ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA597
NU HSJ01AA597	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 1 DRAIN VALVE 1
	RAT-NU-1633-VLV-HSJ01AA598
NU HSJ01AA598	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 1 DRAIN VALVE 2
	RAT-NU-1633-VLV-HSJ01AA599
NU HSJ01AA599	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 1 INLET ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA600
NU HSJ01AA600	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 1 DRAIN ISOLATION VALVE 1
	RAT-NU-1633-VLV-HSJ01AA601
NU HSJ01AA601	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 1 DRAIN ISOLATION VALVE 2
	RAT-NU-1633-VLV-HSJ01AA602
NU HSJ01AA602	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 2 INLET ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA603
NU HSJ01AA603	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 2 DRAIN ISOLATION VALVE 1
	RAT-NU-1633-VLV-HSJ01AA604
NU HSJ01AA604	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 2 DRAIN ISOLATION VALVE 2
	RAT-NU-1633-VLV-HSJ01AA605
NU HSJ01AA605	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 1 VENT ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA606
NU HSJ01AA606	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 2 VENT ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA607
NU HSJ01AA607	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 1 VENT ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA608
NU HSJ01AA608	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 2 VENT ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA611
NU HSJ01AA611	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 1 VENT ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA612
NU HSJ01AA612	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 2 VENT ISOLATION VALVE
	RAT-NU-1633-VLV-HSJ01AA659
NU HSJ01AA659	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 1 VENT SAMPLING VALVE
	RAT-NU-1633-VLV-HSJ01AA660
NU HSJ01AA660	AMMONIA FORWARDING PUMP SUPPLY HEADER HYDROSTATIC RELIEF VALVE 2 VENT SAMPLING VALVE
	RAT-NU-1633-VLV-HSJ01AA661

NU HSJ01AA661	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 1 VENT SAMPLING VALVE RAT-NU-1633-VLV-HSJ01AA662
NU HSJ01AA662	AMMONIA FORWARDING PUMPS MINIMUM FLOW RETURN HEADER HYDROSTATIC RELIEF VALVE 2 VENT SAMPLING VALVE RAT-NU-1633-VLV-HSJ01AA664
NU HSJ01AA664	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 1 VENT SAMPLING VALVE RAT-NU-1633-VLV-HSJ01AA665
NU HSJ01AA665	AMMONIA FORWARDING PUMPS OUTLET HEADER HYDROSTATIC RELIEF VALVE 2 VENT SAMPLING VALVE RAT-NU-164
	AMMONIA VAPORISER SYSTEM RAT-NU-1641
	AMMONIA VAPORISER A SYSTEM RAT-NU-1641-APN
	AMMONIA VAPOURISER A SYSTEM - PNEUMATIC ACTUATOR RAT-NU-1641-APN-HSJ01AA075
NU HSJ01AA075	AMMONIA VAPOURISER VESSEL A INLET AUTOMATED ISOLATION VALVE ACTUATOR RAT-NU-1641-ELM
	AMMONIA VAPOURISER A SYSTEM - ELEMENT RAT-NU-1641-ELM-HSJ01AH001
NU HSJ01AH001	AMMONIA VAPOURISER VESSEL A HEATER ELEMENT 1 RAT-NU-1641-ELM-HSJ01AH002
NU HSJ01AH002	AMMONIA VAPOURISER VESSEL A HEATER ELEMENT 2 RAT-NU-1641-ELM-HSJ01AH003
NU HSJ01AH003	AMMONIA VAPOURISER VESSEL A HEATER ELEMENT 3 RAT-NU-1641-ELM-HSJ01AH004
NU HSJ01AH004	AMMONIA VAPOURISER VESSEL A HEATER ELEMENT 4 RAT-NU-1641-ELM-HSJ01CT004
NU HSJ01CT004	AMMONIA VAPOURISER VESSEL A TUBE BUNDLE TEMPERATURE TRANSMITTER 2 ELEMENT RAT-NU-1641-ELM-HSJ01CT028
NU HSJ01CT028	AMMONIA VAPOURISER VESSEL A TUBE BUNDLE TEMPERATURE TRANSMITTER 1 ELEMENT RAT-NU-1641-HTR
	AMMONIA VAPOURISER A SYSTEM - HEATER RAT-NU-1641-HTR-HSJ01AH020
NU HSJ01AH020	AMMONIA VAPORISER A MAKE UP TRACE HEATING RAT-NU-1641-HTR-HSJ01AH021
NU HSJ01AH021	AMMONIA VAPOURISER A OUTLET LINE TRACE HEATING RAT-NU-1641-INS
	AMMONIA VAPOURISER A SYSTEM - INSTRUMENT RAT-NU-1641-INS-HSJ01CT007
NU HSJ01CT007	AMMONIA VAPOURISER VESSEL A HEATER 1 - TEMPERATURE SENSOR 1 RAT-NU-1641-INS-HSJ01CT008
NU HSJ01CT008	AMMONIA VAPOURISER VESSEL A HEATER 2 - TEMPERATURE SENSOR 1 RAT-NU-1641-INS-HSJ01CT009
NU HSJ01CT009	AMMONIA VAPOURISER VESSEL A HEATER 3 - TEMPERATURE SENSOR 1

RAT-NU-1641-INS-HSJ01CT010
NU HSJ01CT010 AMMONIA VAPOURISER VESSEL A HEATER 4 - TEMPERATURE SENSOR 1
RAT-NU-1641-INS-HSJ01CT033
NU HSJ01CT033 AMMONIA VAPOURISER VESSEL A HEATER 1 - TEMPERATURE SENSOR 2
RAT-NU-1641-INS-HSJ01CT034
NU HSJ01CT034 AMMONIA VAPOURISER VESSEL A HEATER 2 - TEMPERATURE SENSOR 2
RAT-NU-1641-INS-HSJ01CT035
NU HSJ01CT035 AMMONIA VAPOURISER VESSEL A HEATER 3 - TEMPERATURE SENSOR 2
RAT-NU-1641-INS-HSJ01CT036
NU HSJ01CT036 AMMONIA VAPOURISER VESSEL A HEATER 4 - TEMPERATURE SENSOR 2
RAT-NU-1641-RTD
AMMONIA VAPOURISER A SYSTEM - RTD
RAT-NU-1641-RTD-HSJ01CT120
NU HSJ01CT120 AMMONIA VAPORISER MAKE UP A WATER TRACE HEATING RTD
RAT-NU-1641-RTD-HSJ01CT121
NU HSJ01CT121 AMMONIA VAPORISER A OUTLET LINE TRACE HEATING RTD
RAT-NU-1641-SOL
AMMONIA VAPOURISER A SYSTEM - SOLENOID
RAT-NU-1641-SOL-HSJ01AA075
NU HSJ01AA075 AMMONIA VAPOURISER VESSEL A INLET AUTOMATED ISOLATION VALVE SOLENOID
RAT-NU-1641-SWX
AMMONIA VAPOURISER A SYSTEM - AUXILIARY SWITCH
RAT-NU-1641-SWX-HSJ01CG075
NU HSJ01CG075 AMMONIA VAPOURISER VESSEL A INLET AUTOMATED ISOLATION VALVE LIMIT SWITCH
RAT-NU-1641-TXS
AMMONIA VAPOURISER A SYSTEM - TRANSMITTER
RAT-NU-1641-TXS-HSJ01CF156
NU HSJ01CF156 AMMONIA VAPOURISER VESSEL A INLET EMERGENCY SHUT-OFF VALVE FLOW RELAY
RAT-NU-1641-TXS-HSJ01CF201
NU HSJ01CF201 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE FLOW RELAY
RAT-NU-1641-TXS-HSJ01CG201
NU HSJ01CG201 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE POSITION TRANSMITTER
RAT-NU-1641-TXS-HSJ01CT004
NU HSJ01CT004 AMMONIA VAPOURISER VESSEL A TUBE BUNDLE TEMPERATURE TRANSMITTER 2
RAT-NU-1641-TXS-HSJ01CT028
NU HSJ01CT028 AMMONIA VAPOURISER VESSEL A TUBE BUNDLE TEMPERATURE TRANSMITTER 1
RAT-NU-1641-VAP
AMMONIA VAPOURISER A SYSTEM - VAPOURISER
RAT-NU-1641-VAP-HSJ01AC001
NU HSJ01AC001 AMMONIA VAPOURISER VESSEL A
RAT-NU-1641-VLV
AMMONIA VAPOURISER A SYSTEM - VALVE
RAT-NU-1641-VLV-HSJ01AA073
NU HSJ01AA073 AMMONIA VAPOURISER VESSEL A INLET MANUAL ISOLATION VALVE 1

RAT-NU-1641-VLV-HSJ01AA074
NU HSJ01AA074 AMMONIA VAPOURISER VESSEL A INLET MANUAL ISOLATION VALVE 2
RAT-NU-1641-VLV-HSJ01AA075
NU HSJ01AA075 AMMONIA VAPOURISER VESSEL A INLET AUTOMATED ISOLATION VALVE
RAT-NU-1641-VLV-HSJ01AA076
NU HSJ01AA076 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM ISOLATION VALVE 1
RAT-NU-1641-VLV-HSJ01AA077
NU HSJ01AA077 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM ISOLATION VALVE 2
RAT-NU-1641-VLV-HSJ01AA156
NU HSJ01AA156 AMMONIA VAPOURISER VESSEL A INLET EMERGENCY SHUT-OFF VALVE
RAT-NU-1641-VLV-HSJ01AA159
NU HSJ01AA159 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE UPSTREAM ISOLATION VALVE 1
RAT-NU-1641-VLV-HSJ01AA160
NU HSJ01AA160 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE UPSTREAM ISOLATION VALVE 2
RAT-NU-1641-VLV-HSJ01AA201
NU HSJ01AA201 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE
RAT-NU-1641-VLV-HSJ01AA229
NU HSJ01AA229 AMMONIA VAPOURISER VESSEL A INLET LINE HYDROSTATIC RELIEF VALVE 2
RAT-NU-1641-VLV-HSJ01AA274
NU HSJ01AA274 AMMONIA VAPOURISER VESSEL A INLET LINE HYDROSTATIC RELIEF VALVE 1
RAT-NU-1641-VLV-HSJ01AA275
NU HSJ01AA275 AMMONIA VAPOURISER VESSEL A OUTLET LINE HYDROSTATIC RELIEF VALVE
RAT-NU-1641-VLV-HSJ01AA465
NU HSJ01AA465 AMMONIA VAPOURISER VESSEL A INLET DRAIN ISOLATION VALVE 1
RAT-NU-1641-VLV-HSJ01AA466
NU HSJ01AA466 AMMONIA VAPOURISER VESSEL A INLET DRAIN ISOLATION VALVE 2
RAT-NU-1641-VLV-HSJ01AA503
NU HSJ01AA503 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 1
RAT-NU-1641-VLV-HSJ01AA504
NU HSJ01AA504 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 2
RAT-NU-1641-VLV-HSJ01AA505
NU HSJ01AA505 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 3
RAT-NU-1641-VLV-HSJ01AA506
NU HSJ01AA506 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 4
RAT-NU-1641-VLV-HSJ01AA622
NU HSJ01AA622 AMMONIA VAPOURISER VESSEL A INLET LINE HYDROSTATIC RELIEF VALVE 1 VENT ISOLATION VALVE
RAT-NU-1641-VLV-HSJ01AA623
NU HSJ01AA623 AMMONIA VAPOURISER VESSEL A INLET LINE HYDROSTATIC RELIEF VALVE 2 VENT ISOLATION VALVE
RAT-NU-1641-VLV-HSJ01AA626
NU HSJ01AA626 AMMONIA VAPOURISER VESSEL A RELIEF VENT ISOLATION VALVE
RAT-NU-1641-VLV-HSJ01AA627
NU HSJ01AA627 AMMONIA VAPOURISER VESSEL A OUTLET LINE VENT ISOLATION VALVE 1

RAT-NU-1641-VLV-HSJ01AA628
NU HSJ01AA628 AMMONIA VAPOURISER VESSEL A OUTLET LINE VENT ISOLATION VALVE 2
RAT-NU-1641-VLV-HSJ01AA674
NU HSJ01AA674 AMMONIA VAPOURISER VESSEL A INLET LINE HYDROSTATIC RELIEF VALVE 1 VENT SAMPLING VALVE
RAT-NU-1641-VLV-HSJ01AA675
NU HSJ01AA675 AMMONIA VAPOURISER VESSEL A INLET LINE HYDROSTATIC RELIEF VALVE 2 VENT SAMPLING VALVE
RAT-NU-1641-VLV-HSJ01AA678
NU HSJ01AA678 AMMONIA VAPOURISER VESSEL A RELIEF VENT SAMPLING VALVE
RAT-NU-1641-VLV-HSJ02AA540
NU HSJ02AA540 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM MAIN VENT ISOLATION VALVE
RAT-NU-1641-VLV-HSJ02AA675
NU HSJ02AA675 AMMONIA VAPOURISER VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM MAIN VENT SAMPLING VALVE
RAT-NU-1642
AMMONIA VAPORISER A NITROGEN AND WATER SYSTEM
RAT-NU-1642-ELM
AMMONIA VAPORISER A NITROGEN AND WATER SYSTEM - ELEMENT
RAT-NU-1642-ELM-HSJ01CT005
NU HSJ01CT005 AMMONIA VAPOURISER VESSEL A WATER BATH TEMPERATURE TRANSMITTER 1 ELEMENT
RAT-NU-1642-ELM-HSJ01CT006
NU HSJ01CT006 AMMONIA VAPOURISER VESSEL A WATER BATH TEMPERATURE TRANSMITTER 2 ELEMENT
RAT-NU-1642-IND
AMMONIA VAPORISER A NITROGEN AND WATER SYSTEM - INDICATOR
RAT-NU-1642-IND-HSJ01CL009
NU HSJ01CL009 AMMONIA VAPOURISER VESSEL A WATER BATH LEVEL INDICATOR
RAT-NU-1642-IND-HSJ01CT003
NU HSJ01CT003 AMMONIA VAPOURISER VESSEL A WATER BATH TEMPERATURE INDICATOR
RAT-NU-1642-TXS
AMMONIA VAPORISER A NITROGEN AND WATER SYSTEM - TRANSMITTER
RAT-NU-1642-TXS-HSJ01CL007
NU HSJ01CL007 AMMONIA VAPOURISER VESSEL A WATER BATH GUIDED RADAR LEVEL TRANSMITTER 1
RAT-NU-1642-TXS-HSJ01CL008
NU HSJ01CL008 AMMONIA VAPOURISER VESSEL A WATER BATH GUIDED RADAR LEVEL TRANSMITTER 2
RAT-NU-1642-TXS-HSJ01CT005
NU HSJ01CT005 AMMONIA VAPOURISER VESSEL A WATER BATH TEMPERATURE TRANSMITTER 1
RAT-NU-1642-TXS-HSJ01CT006
NU HSJ01CT006 AMMONIA VAPOURISER VESSEL A WATER BATH TEMPERATURE TRANSMITTER 2
RAT-NU-1642-VLV
AMMONIA VAPORISER A NITROGEN AND WATER SYSTEM - VALVE
RAT-NU-1642-VLV-GHB01AA002
NU GHB01AA002 AMMONIA VAPOURISER VESSEL A MAKE-UP WATER ISOLATION VALVE 1
RAT-NU-1642-VLV-GHB01AA003
NU GHB01AA003 AMMONIA VAPOURISER VESSEL A MAKE-UP WATER ISOLATION VALVE 2
RAT-NU-1642-VLV-GHB01AA004
NU GHB01AA004 AMMONIA VAPOURISER VESSEL A MAKE-UP WATER ISOLATION VALVE 3

RAT-NU-1642-VLV-GHB01AA005
NU GHB01AA005 AMMONIA VAPOURISER VESSEL A MAKE-UP WATER BYPASS ISOLATION VALVE
RAT-NU-1642-VLV-HSJ01AA328
NU HSJ01AA328 AMMONIA VAPOURISER VESSEL A WATER BATH LEVEL INDICATOR TOP ISOLATION VALVE
RAT-NU-1642-VLV-HSJ01AA329
NU HSJ01AA329 AMMONIA VAPOURISER VESSEL A WATER BATH LEVEL INDICATOR BOTTOM ISOLATION VALVE
RAT-NU-1642-VLV-HSJ01AA469
NU HSJ01AA469 AMMONIA VAPOURISER VESSEL A WATER BATH DRAIN ISOLATION VALVE 2
RAT-NU-1642-VLV-HSJ01AA821
NU HSJ01AA821 AMMONIA VAPOURISER VESSEL A INLET LINE NITROGEN PURGE ISOLATION VALVE 1
RAT-NU-1642-VLV-HSJ01AA822
NU HSJ01AA822 AMMONIA VAPOURISER VESSEL A INLET LINE NITROGEN PURGE ISOLATION VALVE 2
RAT-NU-1642-VLV-HSJ01AA849
NU HSJ01AA849 AMMONIA VAPOURISER VESSEL A OUTLET NITROGEN PURGE ISOLATION VALVE 1
RAT-NU-1642-VLV-HSJ01AA850
NU HSJ01AA850 AMMONIA VAPOURISER VESSEL A OUTLET NITROGEN PURGE ISOLATION VALVE 2
RAT-NU-1642-VLV-HSJ01AA941
NU HSJ01AA941 AMMONIA VAPOURISER VESSEL A WATER BATH DRAIN ISOLATION VALVE 1
RAT-NU-1643
AMMONIA VAPORISER A AIR INSTRUMENT SYSTEM
RAT-NU-1643-APN
AMMONIA VAPORISER A AIR INSTRUMENT SYSTEM - PNEUMATIC ACTUATOR
RAT-NU-1643-APN-QEB01AA134
NU QEB01AA134 AMMONIA VAPOURISER VESSEL A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 ACTUATOR
RAT-NU-1643-APN-QEB01AA135
NU QEB01AA135 AMMONIA VAPOURISER VESSEL A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 ACTUATOR
RAT-NU-1643-SOL
AMMONIA VAPORISER A AIR INSTRUMENT SYSTEM - SOLENOID
RAT-NU-1643-SOL-QEB01AA134
NU QEB01AA134 AMMONIA VAPOURISER VESSEL A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 SOLENOID
RAT-NU-1643-SOL-QEB01AA135
NU QEB01AA135 AMMONIA VAPOURISER VESSEL A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 SOLENOID
RAT-NU-1643-SWX
AMMONIA VAPORISER A AIR INSTRUMENT SYSTEM - AUXILIARY SWITCH
RAT-NU-1643-SWX-QEB01CG134
NU QEB01CG134 AMMONIA VAPOURISER VESSEL A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 LIMIT SWITCH
RAT-NU-1643-SWX-QEB01CG135
NU QEB01CG135 AMMONIA VAPOURISER VESSEL A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 LIMIT SWITCH
RAT-NU-1643-VLV
AMMONIA VAPORISER A AIR INSTRUMENT SYSTEM - VALVE
RAT-NU-1643-VLV-QEB01AA051
NU QEB01AA051 AMMONIA VAPOURISER VESSEL A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 1
RAT-NU-1643-VLV-QEB01AA054
NU QEB01AA054 AMMONIA VAPOURISER VESSEL A SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 2

RAT-NU-1643-VLV-QEB01AA121
NU QEB01AA121 AMMONIA VAPOURISER VESSEL A SIS INSTRUMENT AIR SHUT-OFF VALVE 2 AIR SUPPLY ISOLATION VALVE
RAT-NU-1643-VLV-QEB01AA122
NU QEB01AA122 AMMONIA VAPOURISER VESSEL A SIS INSTRUMENT AIR SHUT-OFF VALVE 1 AIR SUPPLY ISOLATION VALVE
RAT-NU-1643-VLV-QEB01AA134
NU QEB01AA134 AMMONIA VAPOURISER VESSEL A SIS INSTRUMENT AIR SHUT-OFF VALVE 1
RAT-NU-1643-VLV-QEB01AA135
NU QEB01AA135 AMMONIA VAPOURISER VESSEL A SIS INSTRUMENT AIR SHUT-OFF VALVE 2
RAT-NU-1644
AMMONIA VAPOURISER B SYSTEM
RAT-NU-1644-APN
AMMONIA VAPOURISER B SYSTEM - PNEUMATIC ACTUATOR
RAT-NU-1644-APN-HSJ01AA080
NU HSJ01AA080 AMMONIA VAPOURISER VESSEL B INLET AUTOMATED ISOLATION VALVE ACTUATOR
RAT-NU-1644-ELM
AMMONIA VAPOURISER B SYSTEM - ELEMENT
RAT-NU-1644-ELM-HSJ01AH005
NU HSJ01AH005 AMMONIA VAPOURISER VESSEL B HEATER ELEMENT 1
RAT-NU-1644-ELM-HSJ01AH006
NU HSJ01AH006 AMMONIA VAPOURISER VESSEL B HEATER ELEMENT 2
RAT-NU-1644-ELM-HSJ01AH007
NU HSJ01AH007 AMMONIA VAPOURISER VESSEL B HEATER ELEMENT 3
RAT-NU-1644-ELM-HSJ01AH008
NU HSJ01AH008 AMMONIA VAPOURISER VESSEL B HEATER ELEMENT 4
RAT-NU-1644-ELM-HSJ01CT012
NU HSJ01CT012 AMMONIA VAPOURISER VESSEL B TUBE BUNDLE TEMPERATURE TRANSMITTER 2 ELEMENT
RAT-NU-1644-ELM-HSJ01CT030
NU HSJ01CT030 AMMONIA VAPOURISER VESSEL B TUBE BUNDLE TEMPERATURE TRANSMITTER 1 ELEMENT
RAT-NU-1644-HTR
AMMONIA VAPORISER B SYSTEM - HEATER
RAT-NU-1644-HTR-HSJ01AH022
NU HSJ01AH022 AMMONIA VAPOURISER B OUTLET LINE TRACE HEATING
RAT-NU-1644-HTR-HSJ01AH040
NU HSJ01AH040 AMMONIA VAPORISER B MAKE UP TRACE HEATING
RAT-NU-1644-INS
AMMONIA VAPOURISER B SYSTEM - INSTRUMENT
RAT-NU-1644-INS-HSJ01CT015
NU HSJ01CT015 AMMONIA VAPOURISER VESSEL B HEATER 1 - TEMPERATURE SENSOR 1
RAT-NU-1644-INS-HSJ01CT016
NU HSJ01CT016 AMMONIA VAPOURISER VESSEL B HEATER 2 - TEMPERATURE SENSOR 1
RAT-NU-1644-INS-HSJ01CT017
NU HSJ01CT017 AMMONIA VAPOURISER VESSEL B HEATER 3 - TEMPERATURE SENSOR 1
RAT-NU-1644-INS-HSJ01CT018
NU HSJ01CT018 AMMONIA VAPOURISER VESSEL B HEATER 4 - TEMPERATURE SENSOR 1

RAT-NU-1644-INS-HSJ01CT037
NU HSJ01CT037 AMMONIA VAPOURISER VESSEL B HEATER 1 - TEMPERATURE SENSOR 2
RAT-NU-1644-INS-HSJ01CT038
NU HSJ01CT038 AMMONIA VAPOURISER VESSEL B HEATER 2 - TEMPERATURE SENSOR 2
RAT-NU-1644-INS-HSJ01CT039
NU HSJ01CT039 AMMONIA VAPOURISER VESSEL B HEATER 3 - TEMPERATURE SENSOR 2
RAT-NU-1644-INS-HSJ01CT040
NU HSJ01CT040 AMMONIA VAPOURISER VESSEL B HEATER 4 - TEMPERATURE SENSOR 2
RAT-NU-1644-RTD
AMMONIA VAPORISER SYSTEM - RTD
RAT-NU-1644-RTD-HSJ01CT122
NU HSJ01CT122 AMMONIA VAPORISER B OUTLET LINE TRACE HEATING RTD
RAT-NU-1644-RTD-HSJ01CT140
NU HSJ01CT140 AMMONIA VAPORISER B MAKE UP TRACE HEATING RTD
RAT-NU-1644-SOL
AMMONIA VAPOURISER B SYSTEM - SOLENOID
RAT-NU-1644-SOL-HSJ01AA080
NU HSJ01AA080 AMMONIA VAPOURISER VESSEL B INLET AUTOMATED ISOLATION VALVE SOLENOID
RAT-NU-1644-SWX
AMMONIA VAPOURISER B SYSTEM - AUXILIARY SWITCH
RAT-NU-1644-SWX-HSJ01CG080
NU HSJ01CG080 AMMONIA VAPOURISER VESSEL B INLET AUTOMATED ISOLATION VALVE LIMIT SWITCH
RAT-NU-1644-TXS
AMMONIA VAPOURISER B SYSTEM - TRANSMITTER
RAT-NU-1644-TXS-HSJ01CF157
NU HSJ01CF157 AMMONIA VAPOURISER VESSEL B INLET EMERGENCY SHUT-OFF VALVE FLOW RELAY
RAT-NU-1644-TXS-HSJ01CF202
NU HSJ01CF202 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE FLOW RELAY
RAT-NU-1644-TXS-HSJ01CG202
NU HSJ01CG202 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE POSITION TRANSMITTER
RAT-NU-1644-TXS-HSJ01CT012
NU HSJ01CT012 AMMONIA VAPOURISER VESSEL B TUBE BUNDLE TEMPERATURE TRANSMITTER 2
RAT-NU-1644-TXS-HSJ01CT030
NU HSJ01CT030 AMMONIA VAPOURISER VESSEL B TUBE BUNDLE TEMPERATURE TRANSMITTER 1
RAT-NU-1644-VAP
AMMONIA VAPOURISER B SYSTEM - VAPORISER
RAT-NU-1644-VAP-HSJ01AC002
NU HSJ01AC002 AMMONIA VAPOURISER VESSEL B
RAT-NU-1644-VLV
AMMONIA VAPOURISER B SYSTEM - VALVE
RAT-NU-1644-VLV-HSJ01AA078
NU HSJ01AA078 AMMONIA VAPOURISER VESSEL B INLET MANUAL ISOLATION VALVE 1
RAT-NU-1644-VLV-HSJ01AA079
NU HSJ01AA079 AMMONIA VAPOURISER VESSEL B INLET MANUAL ISOLATION VALVE 2

RAT-NU-1644-VLV-HSJ01AA080
NU HSJ01AA080 AMMONIA VAPOURISER VESSEL B INLET AUTOMATED ISOLATION VALVE
RAT-NU-1644-VLV-HSJ01AA081
NU HSJ01AA081 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM ISOLATION VALVE 1
RAT-NU-1644-VLV-HSJ01AA082
NU HSJ01AA082 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM ISOLATION VALVE 2
RAT-NU-1644-VLV-HSJ01AA157
NU HSJ01AA157 AMMONIA VAPOURISER VESSEL B INLET EMERGENCY SHUT-OFF VALVE
RAT-NU-1644-VLV-HSJ01AA161
NU HSJ01AA161 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE UPSTREAM ISOLATION VALVE 1
RAT-NU-1644-VLV-HSJ01AA162
NU HSJ01AA162 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE UPSTREAM ISOLATION VALVE 2
RAT-NU-1644-VLV-HSJ01AA202
NU HSJ01AA202 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE
RAT-NU-1644-VLV-HSJ01AA230
NU HSJ01AA230 AMMONIA VAPOURISER VESSEL B INLET LINE HYDROSTATIC RELIEF VALVE 2
RAT-NU-1644-VLV-HSJ01AA276
NU HSJ01AA276 AMMONIA VAPOURISER VESSEL B INLET LINE HYDROSTATIC RELIEF VALVE 1
RAT-NU-1644-VLV-HSJ01AA277
NU HSJ01AA277 AMMONIA VAPOURISER VESSEL B OUTLET LINE HYDROSTATIC RELIEF VALVE
RAT-NU-1644-VLV-HSJ01AA470
NU HSJ01AA470 AMMONIA VAPOURISER VESSEL B INLET DRAIN ISOLATION VALVE 1
RAT-NU-1644-VLV-HSJ01AA471
NU HSJ01AA471 AMMONIA VAPOURISER VESSEL B INLET DRAIN ISOLATION VALVE 2
RAT-NU-1644-VLV-HSJ01AA507
NU HSJ01AA507 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 1
RAT-NU-1644-VLV-HSJ01AA508
NU HSJ01AA508 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 2
RAT-NU-1644-VLV-HSJ01AA509
NU HSJ01AA509 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 3
RAT-NU-1644-VLV-HSJ01AA510
NU HSJ01AA510 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 4
RAT-NU-1644-VLV-HSJ01AA619
NU HSJ01AA619 AMMONIA VAPOURISER VESSEL B INLET LINE HYDROSTATIC RELIEF VALVE 2 VENT ISOLATION VALVE
RAT-NU-1644-VLV-HSJ01AA620
NU HSJ01AA620 AMMONIA VAPOURISER VESSEL B INLET LINE HYDROSTATIC RELIEF VALVE 1 VENT ISOLATION VALVE
RAT-NU-1644-VLV-HSJ01AA625
NU HSJ01AA625 AMMONIA VAPOURISER VESSEL B RELIEF VENT ISOLATION VALVE
RAT-NU-1644-VLV-HSJ01AA629
NU HSJ01AA629 AMMONIA VAPOURISER VESSEL B OUTLET LINE VENT ISOLATION VALVE 1
RAT-NU-1644-VLV-HSJ01AA630
NU HSJ01AA630 AMMONIA VAPOURISER VESSEL B OUTLET LINE VENT ISOLATION VALVE 2

RAT-NU-1644-VLV-HSJ01AA671
NU HSJ01AA671 AMMONIA VAPOURISER VESSEL B INLET LINE HYDROSTATIC RELIEF VALVE 2 VENT SAMPLING VALVE
RAT-NU-1644-VLV-HSJ01AA672
NU HSJ01AA672 AMMONIA VAPOURISER VESSEL B INLET LINE HYDROSTATIC RELIEF VALVE 1 VENT SAMPLING VALVE
RAT-NU-1644-VLV-HSJ01AA677
NU HSJ01AA677 AMMONIA VAPOURISER VESSEL B RELIEF VENT SAMPLING VALVE
RAT-NU-1644-VLV-HSJ02AA539
NU HSJ02AA539 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM MAIN VENT ISOLATION VALVE
RAT-NU-1644-VLV-HSJ02AA676
NU HSJ02AA676 AMMONIA VAPOURISER VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM MAIN VENT SAMPLING VALVE
RAT-NU-1645
AMMONIA VAPORISER B NITROGEN AND WATER SYSTEM
RAT-NU-1645-ELM
AMMONIA VAPORISER B NITROGEN AND WATER SYSTEM - ELEMENT
RAT-NU-1645-ELM-HSJ01CT013
NU HSJ01CT013 AMMONIA VAPOURISER VESSEL B WATER BATH TEMPERATURE TRANSMITTER 1 ELEMENT
RAT-NU-1645-ELM-HSJ01CT014
NU HSJ01CT014 AMMONIA VAPOURISER VESSEL B WATER BATH TEMPERATURE TRANSMITTER 2 ELEMENT
RAT-NU-1645-IND
AMMONIA VAPORISER B NITROGEN AND WATER SYSTEM - INDICATOR
RAT-NU-1645-IND-HSJ01CL012
NU HSJ01CL012 AMMONIA VAPOURISER VESSEL B WATER BATH LEVEL INDICATOR
RAT-NU-1645-IND-HSJ01CT011
NU HSJ01CT011 AMMONIA VAPOURISER VESSEL B WATER BATH TEMPERATURE INDICATOR
RAT-NU-1645-TXS
AMMONIA VAPORISER B NITROGEN AND WATER SYSTEM - TRANSMITTER
RAT-NU-1645-TXS-HSJ01CL010
NU HSJ01CL010 AMMONIA VAPOURISER VESSEL B WATER BATH GUIDED RADAR LEVEL TRANSMITTER 1
RAT-NU-1645-TXS-HSJ01CL011
NU HSJ01CL011 AMMONIA VAPOURISER VESSEL B WATER BATH GUIDED RADAR LEVEL TRANSMITTER 2
RAT-NU-1645-TXS-HSJ01CT013
NU HSJ01CT013 AMMONIA VAPOURISER VESSEL B WATER BATH TEMPERATURE TRANSMITTER 1
RAT-NU-1645-TXS-HSJ01CT014
NU HSJ01CT014 AMMONIA VAPOURISER VESSEL B WATER BATH TEMPERATURE TRANSMITTER 2
RAT-NU-1645-VLV
AMMONIA VAPOURISER B NITROGEN AND WATER SYSTEM - VALVE
RAT-NU-1645-VLV-GHB01AA007
NU GHB01AA007 AMMONIA VAPOURISER VESSEL B MAKE-UP WATER ISOLATION VALVE 1
RAT-NU-1645-VLV-GHB01AA008
NU GHB01AA008 AMMONIA VAPOURISER VESSEL B MAKE-UP WATER ISOLATION VALVE 2
RAT-NU-1645-VLV-GHB01AA009
NU GHB01AA009 AMMONIA VAPOURISER VESSEL B MAKE-UP WATER ISOLATION VALVE 3
RAT-NU-1645-VLV-GHB01AA010

NU GHB01AA010	AMMONIA VAPOURISER VESSEL B MAKE-UP WATER BYPASS ISOLATION VALVE
	RAT-NU-1645-VLV-HSJ01AA336
NU HSJ01AA336	AMMONIA VAPOURISER VESSEL B WATER BATH LEVEL INDICATOR TOP ISOLATION VALVE
	RAT-NU-1645-VLV-HSJ01AA337
NU HSJ01AA337	AMMONIA VAPOURISER VESSEL B WATER BATH LEVEL INDICATOR BOTTOM ISOLATION VALVE
	RAT-NU-1645-VLV-HSJ01AA474
NU HSJ01AA474	AMMONIA VAPOURISER VESSEL B WATER BATH DRAIN ISOLATION VALVE 2
	RAT-NU-1645-VLV-HSJ01AA823
NU HSJ01AA823	AMMONIA VAPOURISER VESSEL B INLET LINE NITROGEN PURGE ISOLATION VALVE 1
	RAT-NU-1645-VLV-HSJ01AA824
NU HSJ01AA824	AMMONIA VAPOURISER VESSEL B INLET LINE NITROGEN PURGE ISOLATION VALVE 2
	RAT-NU-1645-VLV-HSJ01AA851
NU HSJ01AA851	AMMONIA VAPOURISER VESSEL B OUTLET NITROGEN PURGE ISOLATION VALVE 1
	RAT-NU-1645-VLV-HSJ01AA852
NU HSJ01AA852	AMMONIA VAPOURISER VESSEL B OUTLET NITROGEN PURGE ISOLATION VALVE 2
	RAT-NU-1645-VLV-HSJ01AA942
NU HSJ01AA942	AMMONIA VAPOURISER VESSEL B WATER BATH DRAIN ISOLATION VALVE 1
	RAT-NU-1646
	AMMONIA VAPORISER B AIR INSTRUMENT SYSTEM
	RAT-NU-1646-APN
	AMMONIA VAPOURISER B AIR INSTRUMENT SYSTEM - PNEUMATIC ACTUATOR
	RAT-NU-1646-APN-QEB01AA136
NU QEB01AA136	AMMONIA VAPOURISER VESSEL B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 ACTUATOR
	RAT-NU-1646-APN-QEB01AA137
NU QEB01AA137	AMMONIA VAPOURISER VESSEL B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 ACTUATOR
	RAT-NU-1646-SOL
	AMMONIA VAPOURISER B AIR INSTRUMENT SYSTEM - SOLENOID
	RAT-NU-1646-SOL-QEB01AA136
NU QEB01AA136	AMMONIA VAPOURISER VESSEL B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 SOLENOID
	RAT-NU-1646-SOL-QEB01AA137
NU QEB01AA137	AMMONIA VAPOURISER VESSEL B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 SOLENOID
	RAT-NU-1646-SWX
	AMMONIA VAPOURISER B AIR INSTRUMENT SYSTEM - AUXILIARY SWITCH
	RAT-NU-1646-SWX-QEB01CG136
NU QEB01CG136	AMMONIA VAPOURISER VESSEL B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 LIMIT SWITCH
	RAT-NU-1646-SWX-QEB01CG137
NU QEB01CG137	AMMONIA VAPOURISER VESSEL B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 LIMIT SWITCH
	RAT-NU-1646-VLV
	AMMONIA VAPOURISER B AIR INSTRUMENT SYSTEM - VALVE
	RAT-NU-1646-VLV-QEB01AA052
NU QEB01AA052	AMMONIA VAPOURISER VESSEL B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 1
	RAT-NU-1646-VLV-QEB01AA055
NU QEB01AA055	AMMONIA VAPOURISER VESSEL B SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 2
	RAT-NU-1646-VLV-QEB01AA123

NU QEB01AA123	AMMONIA VAPOURISER VESSEL B SIS INSTRUMENT AIR SHUT-OFF VALVE 2 AIR SUPPLY ISOLATION VALVE
	RAT-NU-1646-VLV-QEB01AA124
NU QEB01AA124	AMMONIA VAPOURISER VESSEL B SIS INSTRUMENT AIR SHUT-OFF VALVE 1 AIR SUPPLY ISOLATION VALVE
	RAT-NU-1646-VLV-QEB01AA136
NU QEB01AA136	AMMONIA VAPOURISER VESSEL B SIS INSTRUMENT AIR SHUT-OFF VALVE 1
	RAT-NU-1646-VLV-QEB01AA137
NU QEB01AA137	AMMONIA VAPOURISER VESSEL B SIS INSTRUMENT AIR SHUT-OFF VALVE 2
	RAT-NU-1647
	AMMONIA VAPOURISER C SYSTEM
	RAT-NU-1647-APN
	AMMONIA VAPOURISER C SYSTEM - PNEUMATIC ACTUATOR
	RAT-NU-1647-APN-HSJ01AA085
NU HSJ01AA085	AMMONIA VAPOURISER VESSEL C INLET AUTOMATED ISOLATION VALVE ACTUATOR
	RAT-NU-1647-ELM
	AMMONIA VAPOURISER C SYSTEM - ELEMENT
	RAT-NU-1647-ELM-HSJ01AH009
NU HSJ01AH009	AMMONIA VAPOURISER VESSEL C HEATER ELEMENT 1
	RAT-NU-1647-ELM-HSJ01AH010
NU HSJ01AH010	AMMONIA VAPOURISER VESSEL C HEATER ELEMENT 2
	RAT-NU-1647-ELM-HSJ01AH011
NU HSJ01AH011	AMMONIA VAPOURISER VESSEL C HEATER ELEMENT 3
	RAT-NU-1647-ELM-HSJ01AH012
NU HSJ01AH012	AMMONIA VAPOURISER VESSEL C HEATER ELEMENT 4
	RAT-NU-1647-ELM-HSJ01CT020
NU HSJ01CT020	AMMONIA VAPOURISER VESSEL C TUBE BUNDLE TEMPERATURE TRANSMITTER 2 ELEMENT
	RAT-NU-1647-ELM-HSJ01CT032
NU HSJ01CT032	AMMONIA VAPOURISER VESSEL C TUBE BUNDLE TEMPERATURE TRANSMITTER 1 ELEMENT
	RAT-NU-1647-HTR
	AMMONIA VAPOURISER C SYSTEM - HEATER
	RAT-NU-1647-HTR-HSJ01AH023
NU HSJ01AH023	AMMONIA VAPOURISER C OUTLET LINE TRACE HEATING
	RAT-NU-1647-HTR-HSJ01AH050
NU HSJ01AH050	AMMONIA VAPORISER C MAKE UP TRACE HEATING
	RAT-NU-1647-INS
	AMMONIA VAPOURISER C SYSTEM - INSTRUMENT
	RAT-NU-1647-INS-HSJ01CT023
NU HSJ01CT023	AMMONIA VAPOURISER VESSEL C HEATER 1 - TEMPERATURE SENSOR 1
	RAT-NU-1647-INS-HSJ01CT024
NU HSJ01CT024	AMMONIA VAPOURISER VESSEL C HEATER 2 - TEMPERATURE SENSOR 1
	RAT-NU-1647-INS-HSJ01CT025
NU HSJ01CT025	AMMONIA VAPOURISER VESSEL C HEATER 3 - TEMPERATURE SENSOR 1
	RAT-NU-1647-INS-HSJ01CT026
NU HSJ01CT026	AMMONIA VAPOURISER VESSEL C HEATER 4 - TEMPERATURE SENSOR 1
	RAT-NU-1647-INS-HSJ01CT041

NU HSJ01CT041	AMMONIA VAPOURISER VESSEL C HEATER 1 - TEMPERATURE SENSOR 2
	RAT-NU-1647-INS-HSJ01CT042
NU HSJ01CT042	AMMONIA VAPOURISER VESSEL C HEATER 2 - TEMPERATURE SENSOR 2
	RAT-NU-1647-INS-HSJ01CT043
NU HSJ01CT043	AMMONIA VAPOURISER VESSEL C HEATER 3 - TEMPERATURE SENSOR 2
	RAT-NU-1647-INS-HSJ01CT044
NU HSJ01CT044	AMMONIA VAPOURISER VESSEL C HEATER 4 - TEMPERATURE SENSOR 2
	RAT-NU-1647-RTD
	AMMONIA VAPOURISER C SYSTEM - RTD
	RAT-NU-1647-RTD-HSJ01CT123
NU HSJ01CT123	AMMONIA VAPORISER C OUTLET LINE TRACE HEATING RTD
	RAT-NU-1647-RTD-HSJ01CT150
NU HSJ01CT150	AMMONIA VAPORISER C MAKE UP TRACE HEATING RTD
	RAT-NU-1647-SOL
	AMMONIA VAPOURISER C SYSTEM - SOLENOID
	RAT-NU-1647-SOL-HSJ01AA085
NU HSJ01AA085	AMMONIA VAPOURISER VESSEL C INLET AUTOMATED ISOLATION VALVE SOLENOID
	RAT-NU-1647-SWX
	AMMONIA VAPOURISER C SYSTEM - AUXILIARY SWITCH
	RAT-NU-1647-SWX-HSJ01CG085
NU HSJ01CG085	AMMONIA VAPOURISER VESSEL C INLET AUTOMATED ISOLATION VALVE LIMIT SWITCH
	RAT-NU-1647-TXS
	AMMONIA VAPOURISER C SYSTEM - TRANSMITTER
	RAT-NU-1647-TXS-HSJ01CF158
NU HSJ01CF158	AMMONIA VAPOURISER VESSEL C INLET EMERGENCY SHUT-OFF VALVE FLOW RELAY
	RAT-NU-1647-TXS-HSJ01CF203
NU HSJ01CF203	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE FLOW RELAY
	RAT-NU-1647-TXS-HSJ01CG203
NU HSJ01CG203	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE POSITION TRANSMITTER
	RAT-NU-1647-TXS-HSJ01CT020
NU HSJ01CT020	AMMONIA VAPOURISER VESSEL C TUBE BUNDLE TEMPERATURE TRANSMITTER 2
	RAT-NU-1647-TXS-HSJ01CT032
NU HSJ01CT032	AMMONIA VAPOURISER VESSEL C TUBE BUNDLE TEMPERATURE TRANSMITTER 1
	RAT-NU-1647-VAP
	AMMONIA VAPOURISER C SYSTEM - VAPOURISER
	RAT-NU-1647-VAP-HSJ01AC003
NU HSJ01AC003	AMMONIA VAPOURISER VESSEL C
	RAT-NU-1647-VLV
	AMMONIA VAPOURISER C SYSTEM - VALVE
	RAT-NU-1647-VLV-HSJ01AA083
NU HSJ01AA083	AMMONIA VAPOURISER VESSEL C INLET MANUAL ISOLATION VALVE 1
	RAT-NU-1647-VLV-HSJ01AA084
NU HSJ01AA084	AMMONIA VAPOURISER VESSEL C INLET MANUAL ISOLATION VALVE 2
	RAT-NU-1647-VLV-HSJ01AA085

NU HSJ01AA085	AMMONIA VAPOURISER VESSEL C INLET AUTOMATED ISOLATION VALVE
	RAT-NU-1647-VLV-HSJ01AA086
NU HSJ01AA086	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE DOWNSTREAM ISOLATION VALVE 1
	RAT-NU-1647-VLV-HSJ01AA087
NU HSJ01AA087	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE DOWNSTREAM ISOLATION VALVE 2
	RAT-NU-1647-VLV-HSJ01AA158
NU HSJ01AA158	AMMONIA VAPOURISER VESSEL C INLET EMERGENCY SHUT-OFF VALVE
	RAT-NU-1647-VLV-HSJ01AA163
NU HSJ01AA163	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE UPSTREAM ISOLATION VALVE 1
	RAT-NU-1647-VLV-HSJ01AA164
NU HSJ01AA164	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE UPSTREAM ISOLATION VALVE 2
	RAT-NU-1647-VLV-HSJ01AA203
NU HSJ01AA203	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE
	RAT-NU-1647-VLV-HSJ01AA231
NU HSJ01AA231	AMMONIA VAPOURISER VESSEL C INLET LINE HYDROSTATIC RELIEF VALVE 2
	RAT-NU-1647-VLV-HSJ01AA278
NU HSJ01AA278	AMMONIA VAPOURISER VESSEL C INLET LINE HYDROSTATIC RELIEF VALVE 1
	RAT-NU-1647-VLV-HSJ01AA279
NU HSJ01AA279	AMMONIA VAPOURISER VESSEL C OUTLET LINE HYDROSTATIC RELIEF VALVE
	RAT-NU-1647-VLV-HSJ01AA475
NU HSJ01AA475	AMMONIA VAPOURISER VESSEL C INLET DRAIN ISOLATION VALVE 1
	RAT-NU-1647-VLV-HSJ01AA476
NU HSJ01AA476	AMMONIA VAPOURISER VESSEL C INLET DRAIN ISOLATION VALVE 2
	RAT-NU-1647-VLV-HSJ01AA511
NU HSJ01AA511	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 1
	RAT-NU-1647-VLV-HSJ01AA512
NU HSJ01AA512	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 2
	RAT-NU-1647-VLV-HSJ01AA513
NU HSJ01AA513	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 3
	RAT-NU-1647-VLV-HSJ01AA514
NU HSJ01AA514	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 4
	RAT-NU-1647-VLV-HSJ01AA616
NU HSJ01AA616	AMMONIA VAPOURISER VESSEL C INLET LINE HYDROSTATIC RELIEF VALVE 1 VENT ISOLATION VALVE
	RAT-NU-1647-VLV-HSJ01AA617
NU HSJ01AA617	AMMONIA VAPOURISER VESSEL C INLET LINE HYDROSTATIC RELIEF VALVE 2 VENT ISOLATION VALVE
	RAT-NU-1647-VLV-HSJ01AA624
NU HSJ01AA624	AMMONIA VAPOURISER VESSEL C RELIEF VENT ISOLATION VALVE
	RAT-NU-1647-VLV-HSJ01AA631
NU HSJ01AA631	AMMONIA VAPOURISER VESSEL C OUTLET LINE VENT ISOLATION VALVE 1
	RAT-NU-1647-VLV-HSJ01AA632
NU HSJ01AA632	AMMONIA VAPOURISER VESSEL C OUTLET LINE VENT ISOLATION VALVE 2
	RAT-NU-1647-VLV-HSJ01AA633

NU HSJ01AA633	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE DOWNSTREAM MAIN VENT ISOLATION VALVE
	RAT-NU-1647-VLV-HSJ01AA668
NU HSJ01AA668	AMMONIA VAPOURISER VESSEL C INLET LINE HYDROSTATIC RELIEF VALVE 1 VENT SAMPLING VALVE
	RAT-NU-1647-VLV-HSJ01AA669
NU HSJ01AA669	AMMONIA VAPOURISER VESSEL C INLET LINE HYDROSTATIC RELIEF VALVE 2 VENT SAMPLING VALVE
	RAT-NU-1647-VLV-HSJ01AA676
NU HSJ01AA676	AMMONIA VAPOURISER VESSEL C RELIEF VENT SAMPLING VALVE
	RAT-NU-1647-VLV-HSJ01AA679
NU HSJ01AA679	AMMONIA VAPOURISER VESSEL C OUTLET PRESSURE CONTROL VALVE DOWNSTREAM MAIN VENT SAMPLING VALVE
	RAT-NU-1648
	AMMONIA VAPORISER C NITROGEN AND WATER SYSTEM
	RAT-NU-1648-ELM
	AMMONIA VAPORISER C NITROGEN AND WATER SYSTEM - ELEMENT
	RAT-NU-1648-ELM-HSJ01CT021
NU HSJ01CT021	AMMONIA VAPOURISER VESSEL C WATER BATH TEMPERATURE TRANSMITTER 1 ELEMENT
	RAT-NU-1648-ELM-HSJ01CT022
NU HSJ01CT022	AMMONIA VAPOURISER VESSEL C WATER BATH TEMPERATURE TRANSMITTER 2 ELEMENT
	RAT-NU-1648-IND
	AMMONIA VAPORISER C NITROGEN AND WATER SYSTEM - INDICATOR
	RAT-NU-1648-IND-HSJ01CL015
NU HSJ01CL015	AMMONIA VAPOURISER VESSEL C WATER BATH LEVEL INDICATOR
	RAT-NU-1648-IND-HSJ01CT019
NU HSJ01CT019	AMMONIA VAPOURISER VESSEL C WATER BATH TEMPERATURE INDICATOR
	RAT-NU-1648-TXS
	AMMONIA VAPORISER C NITROGEN AND WATER SYSTEM - TRANSMITTER
	RAT-NU-1648-TXS-HSJ01CL013
NU HSJ01CL013	AMMONIA VAPOURISER VESSEL C WATER BATH GUIDED RADAR LEVEL TRANSMITTER 1
	RAT-NU-1648-TXS-HSJ01CL014
NU HSJ01CL014	AMMONIA VAPOURISER VESSEL C WATER BATH GUIDED RADAR LEVEL TRANSMITTER 2
	RAT-NU-1648-TXS-HSJ01CT021
NU HSJ01CT021	AMMONIA VAPOURISER VESSEL C WATER BATH TEMPERATURE TRANSMITTER 1
	RAT-NU-1648-TXS-HSJ01CT022
NU HSJ01CT022	AMMONIA VAPOURISER VESSEL C WATER BATH TEMPERATURE TRANSMITTER 2
	RAT-NU-1648-VLV
	AMMONIA VAPORISER C NITROGEN AND WATER SYSTEM - VALVE
	RAT-NU-1648-VLV-GHB01AA012
NU GHB01AA012	AMMONIA VAPOURISER VESSEL C MAKE-UP WATER ISOLATION VALVE 1
	RAT-NU-1648-VLV-GHB01AA013
NU GHB01AA013	AMMONIA VAPOURISER VESSEL C MAKE-UP WATER ISOLATION VALVE 2
	RAT-NU-1648-VLV-GHB01AA014
NU GHB01AA014	AMMONIA VAPOURISER VESSEL C MAKE-UP WATER ISOLATION VALVE 3
	RAT-NU-1648-VLV-GHB01AA015
NU GHB01AA015	AMMONIA VAPOURISER VESSEL C MAKE-UP WATER BYPASS ISOLATION VALVE
	RAT-NU-1648-VLV-HSJ01AA342

NU HSJ01AA342	AMMONIA VAPOURISER VESSEL C WATER BATH LEVEL INDICATOR TOP ISOLATION VALVE
	RAT-NU-1648-VLV-HSJ01AA343
NU HSJ01AA343	AMMONIA VAPOURISER VESSEL C WATER BATH LEVEL INDICATOR BOTTOM ISOLATION VALVE
	RAT-NU-1648-VLV-HSJ01AA479
NU HSJ01AA479	AMMONIA VAPOURISER VESSEL C WATER BATH DRAIN ISOLATION VALVE 2
	RAT-NU-1648-VLV-HSJ01AA825
NU HSJ01AA825	AMMONIA VAPOURISER VESSEL C INLET LINE NITROGEN PURGE ISOLATION VALVE 1
	RAT-NU-1648-VLV-HSJ01AA826
NU HSJ01AA826	AMMONIA VAPOURISER VESSEL C INLET LINE NITROGEN PURGE ISOLATION VALVE 2
	RAT-NU-1648-VLV-HSJ01AA853
NU HSJ01AA853	AMMONIA VAPOURISER VESSEL C OUTLET NITROGEN PURGE ISOLATION VALVE 1
	RAT-NU-1648-VLV-HSJ01AA854
NU HSJ01AA854	AMMONIA VAPOURISER VESSEL C OUTLET NITROGEN PURGE ISOLATION VALVE 2
	RAT-NU-1648-VLV-HSJ01AA943
NU HSJ01AA943	AMMONIA VAPOURISER VESSEL C WATER BATH DRAIN ISOLATION VALVE 1
	RAT-NU-1649
	AMMONIA VAPOURISER C AIR INSTRUMENT SYSTEM
	RAT-NU-1649-APN
	AMMONIA VAPOURISER C AIR INSTRUMENT SYSTEM - PNEUMATIC ACTUATOR
	RAT-NU-1649-APN-QEB01AA138
NU QEB01AA138	AMMONIA VAPOURISER VESSEL C SIS INSTRUMENT AIR SHUT-OFF VALVE 1 ACTUATOR
	RAT-NU-1649-APN-QEB01AA139
NU QEB01AA139	AMMONIA VAPOURISER VESSEL C SIS INSTRUMENT AIR SHUT-OFF VALVE 2 ACTUATOR
	RAT-NU-1649-SOL
	AMMONIA VAPOURISER C AIR INSTRUMENT SYSTEM - SOLENOID
	RAT-NU-1649-SOL-QEB01AA138
NU QEB01AA138	AMMONIA VAPOURISER VESSEL C SIS INSTRUMENT AIR SHUT-OFF VALVE 1 SOLENOID
	RAT-NU-1649-SOL-QEB01AA139
NU QEB01AA139	AMMONIA VAPOURISER VESSEL C SIS INSTRUMENT AIR SHUT-OFF VALVE 2 SOLENOID
	RAT-NU-1649-SWX
	AMMONIA VAPOURISER C AIR INSTRUMENT SYSTEM - AUXILIARY SWITCH
	RAT-NU-1649-SWX-QEB01CG138
NU QEB01CG138	AMMONIA VAPOURISER VESSEL C SIS INSTRUMENT AIR SHUT-OFF VALVE 1 LIMIT SWITCH
	RAT-NU-1649-SWX-QEB01CG139
NU QEB01CG139	AMMONIA VAPOURISER VESSEL C SIS INSTRUMENT AIR SHUT-OFF VALVE 2 LIMIT SWITCH
	RAT-NU-1649-VLV
	AMMONIA VAPOURISER C AIR INSTRUMENT SYSTEM - VALVE
	RAT-NU-1649-VLV-QEB01AA053
NU QEB01AA053	AMMONIA VAPOURISER VESSEL C SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 1
	RAT-NU-1649-VLV-QEB01AA056
NU QEB01AA056	AMMONIA VAPOURISER VESSEL C SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 2
	RAT-NU-1649-VLV-QEB01AA125
NU QEB01AA125	AMMONIA VAPOURISER VESSEL C SIS INSTRUMENT AIR SHUT-OFF VALVE 2 AIR SUPPLY ISOLATION VALVE
	RAT-NU-1649-VLV-QEB01AA126

NU QEB01AA126	AMMONIA VAPOURISER VESSEL C SIS INSTRUMENT AIR SHUT-OFF VALVE 1 AIR SUPPLY ISOLATION VALVE
	RAT-NU-1649-VLV-QEB01AA138
NU QEB01AA138	AMMONIA VAPOURISER VESSEL C SIS INSTRUMENT AIR SHUT-OFF VALVE 1
	RAT-NU-1649-VLV-QEB01AA139
NU QEB01AA139	AMMONIA VAPOURISER VESSEL C SIS INSTRUMENT AIR SHUT-OFF VALVE 2
	RAT-NU-165
	AMMONIA ACCUMULATOR SYSTEM
	RAT-NU-1651
	AMMONIA ACCUMULATOR A SYSTEM
	RAT-NU-1651-HTR
	AMMONIA ACCUMULATOR A SYSTEM - HEATER
	RAT-NU-1651-HTR-HSJ01AH024
NU HSJ01AH024	AMMONIA ACCUMULATOR A STREAM TRACE HEATING
	RAT-NU-1651-IND
	AMMONIA ACCUMULATOR A SYSTEM - INDICATOR
	RAT-NU-1651-IND-HSJ01CT027
NU HSJ01CT027	AMMONIA ACCUMULATOR VESSEL A INLET TEMPERATURE INDICATOR
	RAT-NU-1651-LVS
	AMMONIA ACCUMULATOR A SYSTEM - LEVEL SWITCH
	RAT-NU-1651-LVS-HSJ01CL016
NU HSJ01CL016	AMMONIA ACCUMULATOR VESSEL A HIGH LEVEL SWITCH
	RAT-NU-1651-RTD
	AMMONIA ACCUMULATOR A SYSTEM - RTD
	RAT-NU-1651-RTD-HSJ01CT124
NU HSJ01CT124	AMMONIA ACCUMULATOR A STREAM TRACE HEATING RTD
	RAT-NU-1651-TXS
	AMMONIA ACCUMULATOR A SYSTEM - TRANSMITTER
	RAT-NU-1651-TXS-HSJ01CF095
NU HSJ01CF095	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE FLOW RELAY
	RAT-NU-1651-TXS-HSJ01CG095
NU HSJ01CG095	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE POSITION TRANSMITTER
	RAT-NU-1651-TXS-HSJ01CP016
NU HSJ01CP016	AMMONIA ACCUMULATOR VESSEL A INLET PRESSURE TRANSMITTER
	RAT-NU-1651-TXS-HSJ01CP023
NU HSJ01CP023	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM PRESSURE TRANSMITTER
	RAT-NU-1651-VLV
	AMMONIA ACCUMULATOR A SYSTEM - VALVE
	RAT-NU-1651-VLV-HSJ01AA088
NU HSJ01AA088	AMMONIA ACCUMULATOR VESSEL A INLET ISOLATION VALVE 1
	RAT-NU-1651-VLV-HSJ01AA089
NU HSJ01AA089	AMMONIA ACCUMULATOR VESSEL A INLET ISOLATION VALVE 2
	RAT-NU-1651-VLV-HSJ01AA093
NU HSJ01AA093	AMMONIA ACCUMULATOR VESSEL A OUTLET ISOLATION VALVE 1
	RAT-NU-1651-VLV-HSJ01AA094

NU HSJ01AA094	AMMONIA ACCUMULATOR VESSEL A OUTLET ISOLATION VALVE 2
	RAT-NU-1651-VLV-HSJ01AA095
NU HSJ01AA095	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE
	RAT-NU-1651-VLV-HSJ01AA096
NU HSJ01AA096	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM ISOLATION VALVE 1
	RAT-NU-1651-VLV-HSJ01AA097
NU HSJ01AA097	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM ISOLATION VALVE 2
	RAT-NU-1651-VLV-HSJ01AA280
NU HSJ01AA280	AMMONIA ACCUMULATOR VESSEL A SAFETY RELIEF VALVE
	RAT-NU-1651-VLV-HSJ01AA345
NU HSJ01AA345	AMMONIA ACCUMULATOR VESSEL A INLET PRESSURE TRANSMITTER ISOLATION VALVE
	RAT-NU-1651-VLV-HSJ01AA352
NU HSJ01AA352	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM PRESSURE TRANSMITTER ISOLATION VALVE
	RAT-NU-1651-VLV-HSJ01AA480
NU HSJ01AA480	AMMONIA ACCUMULATOR VESSEL A DRAIN ISOLATION VALVE 1
	RAT-NU-1651-VLV-HSJ01AA481
NU HSJ01AA481	AMMONIA ACCUMULATOR VESSEL A DRAIN ISOLATION VALVE 2
	RAT-NU-1651-VLV-HSJ01AA515
NU HSJ01AA515	AMMONIA ACCUMULATOR VESSEL A INLET LINE VENT ISOLATION VALVE 1
	RAT-NU-1651-VLV-HSJ01AA516
NU HSJ01AA516	AMMONIA ACCUMULATOR VESSEL A INLET LINE VENT ISOLATION VALVE 2
	RAT-NU-1651-VLV-HSJ01AA521
NU HSJ01AA521	AMMONIA ACCUMULATOR VESSEL A OUTLET LINE VENT ISOLATION VALVE 1
	RAT-NU-1651-VLV-HSJ01AA522
NU HSJ01AA522	AMMONIA ACCUMULATOR VESSEL A OUTLET LINE VENT ISOLATION VALVE 2
	RAT-NU-1651-VLV-HSJ01AA523
NU HSJ01AA523	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 1
	RAT-NU-1651-VLV-HSJ01AA524
NU HSJ01AA524	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 2
	RAT-NU-1651-VLV-HSJ01AA525
NU HSJ01AA525	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 3
	RAT-NU-1651-VLV-HSJ01AA526
NU HSJ01AA526	AMMONIA ACCUMULATOR VESSEL A OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 4
	RAT-NU-1651-VLV-HSJ01AA636
NU HSJ01AA636	AMMONIA ACCUMULATOR VESSEL A RELIEF VENT ISOLATION VALVE
	RAT-NU-1651-VLV-HSJ01AA682
NU HSJ01AA682	AMMONIA ACCUMULATOR VESSEL A RELIEF VENT SAMPLING VALVE
	RAT-NU-1651-VLV-HSJ01AA827
NU HSJ01AA827	AMMONIA ACCUMULATOR VESSEL A NITROGEN PURGE ISOLATION VALVE 1
	RAT-NU-1651-VLV-HSJ01AA828
NU HSJ01AA828	AMMONIA ACCUMULATOR VESSEL A NITROGEN PURGE ISOLATION VALVE 2
	RAT-NU-1651-VLV-HSJ01AA829
NU HSJ01AA829	AMMONIA ACCUMULATOR VESSEL A OUTLET NITROGEN PURGE ISOLATION VALVE 1

RAT-NU-1651-VLV-HSJ01AA830
NU HSJ01AA830 AMMONIA ACCUMULATOR VESSEL A OUTLET NITROGEN PURGE ISOLATION VALVE 2
RAT-NU-1651-VLV-HSJ02AA541
NU HSJ02AA541 AMMONIA ACCUMULATOR VESSEL A DRAIN HEADER VENT ISOLATION VALVE
RAT-NU-1651-VLV-HSJ02AA542
NU HSJ02AA542 AMMONIA ACCUMULATOR VESSEL A MAINTENANCE VENT ISOLATION VALVE
RAT-NU-1651-VLV-HSJ02AA677
NU HSJ02AA677 AMMONIA ACCUMULATOR VESSEL A DRAIN HEADER VENT SAMPLING VALVE
RAT-NU-1651-VSL
AMMONIA ACCUMULATOR A SYSTEM - VESSEL
RAT-NU-1651-VSL-HSJ01BB006
NU HSJ01BB006 AMMONIA ACCUMULATOR VESSEL A
RAT-NU-1652
AMMONIA ACCUMULATOR B SYSTEM
RAT-NU-1652-HTR
AMMONIA ACCUMULATOR B SYSTEM - HEATER
RAT-NU-1652-HTR-HSJ01AH025
NU HSJ01AH025 AMMONIA ACCUMULATOR B STREAM TRACE HEATING
RAT-NU-1652-IND
AMMONIA ACCUMULATOR B SYSTEM - INDICATOR
RAT-NU-1652-IND-HSJ01CT045
NU HSJ01CT045 AMMONIA ACCUMULATOR VESSEL B INLET TEMPERATURE INDICATOR
RAT-NU-1652-LVS
AMMONIA ACCUMULATOR B SYSTEM - LEVEL SWITCH
RAT-NU-1652-LVS-HSJ01CL019
NU HSJ01CL019 AMMONIA ACCUMULATOR VESSEL B HIGH LEVEL SWITCH
RAT-NU-1652-RTD
AMMONIA ACCUMULATOR B SYSTEM - RTD
RAT-NU-1652-RTD-HSJ01CT125
NU HSJ01CT125 AMMONIA ACCUMULATOR B STREAM TRACE HEATING RTD
RAT-NU-1652-TXS
AMMONIA ACCUMULATOR B SYSTEM - TRANSMITTER
RAT-NU-1652-TXS-HSJ01CF102
NU HSJ01CF102 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE FLOW RELAY
RAT-NU-1652-TXS-HSJ01CG102
NU HSJ01CG102 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE POSITION TRANSMITTER
RAT-NU-1652-TXS-HSJ01CP024
NU HSJ01CP024 AMMONIA ACCUMULATOR VESSEL B INLET PRESSURE TRANSMITTER
RAT-NU-1652-TXS-HSJ01CP026
NU HSJ01CP026 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM PRESSURE TRANSMITTER
RAT-NU-1652-VLV
AMMONIA ACCUMULATOR B SYSTEM - VALVE
RAT-NU-1652-VLV-HSJ01AA091
NU HSJ01AA091 AMMONIA ACCUMULATOR VESSEL B INLET ISOLATION VALVE 1

RAT-NU-1652-VLV-HSJ01AA092
NU HSJ01AA092 AMMONIA ACCUMULATOR VESSEL B INLET ISOLATION VALVE 2
RAT-NU-1652-VLV-HSJ01AA100
NU HSJ01AA100 AMMONIA ACCUMULATOR VESSEL B OUTLET ISOLATION VALVE 1
RAT-NU-1652-VLV-HSJ01AA101
NU HSJ01AA101 AMMONIA ACCUMULATOR VESSEL B OUTLET ISOLATION VALVE 2
RAT-NU-1652-VLV-HSJ01AA102
NU HSJ01AA102 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE
RAT-NU-1652-VLV-HSJ01AA103
NU HSJ01AA103 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM ISOLATION VALVE 1
RAT-NU-1652-VLV-HSJ01AA104
NU HSJ01AA104 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM ISOLATION VALVE 2
RAT-NU-1652-VLV-HSJ01AA283
NU HSJ01AA283 AMMONIA ACCUMULATOR VESSEL B SAFETY RELIEF VALVE
RAT-NU-1652-VLV-HSJ01AA347
NU HSJ01AA347 AMMONIA ACCUMULATOR VESSEL B INLET PRESSURE TRANSMITTER ISOLATION VALVE
RAT-NU-1652-VLV-HSJ01AA353
NU HSJ01AA353 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM PRESSURE TRANSMITTER ISOLATION VALVE
RAT-NU-1652-VLV-HSJ01AA477
NU HSJ01AA477 AMMONIA ACCUMULATOR VESSEL B DRAIN ISOLATION VALVE 1
RAT-NU-1652-VLV-HSJ01AA478
NU HSJ01AA478 AMMONIA ACCUMULATOR VESSEL B DRAIN ISOLATION VALVE 2
RAT-NU-1652-VLV-HSJ01AA519
NU HSJ01AA519 AMMONIA ACCUMULATOR VESSEL B INLET LINE VENT ISOLATION VALVE 1
RAT-NU-1652-VLV-HSJ01AA520
NU HSJ01AA520 AMMONIA ACCUMULATOR VESSEL B INLET LINE VENT ISOLATION VALVE 2
RAT-NU-1652-VLV-HSJ01AA527
NU HSJ01AA527 AMMONIA ACCUMULATOR VESSEL B DOWNSTREAM VENT ISOLATION VALVE 1
RAT-NU-1652-VLV-HSJ01AA528
NU HSJ01AA528 AMMONIA ACCUMULATOR VESSEL B DOWNSTREAM VENT ISOLATION VALVE 2
RAT-NU-1652-VLV-HSJ01AA529
NU HSJ01AA529 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 1
RAT-NU-1652-VLV-HSJ01AA530
NU HSJ01AA530 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 2
RAT-NU-1652-VLV-HSJ01AA531
NU HSJ01AA531 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 3
RAT-NU-1652-VLV-HSJ01AA532
NU HSJ01AA532 AMMONIA ACCUMULATOR VESSEL B OUTLET PRESSURE CONTROL VALVE DOWNSTREAM VENT ISOLATION VALVE 4
RAT-NU-1652-VLV-HSJ01AA634
NU HSJ01AA634 AMMONIA ACCUMULATOR VESSEL B DRAIN HEADER VENT ISOLATION VALVE
RAT-NU-1652-VLV-HSJ01AA635
NU HSJ01AA635 AMMONIA ACCUMULATOR VESSEL B RELIEF VENT ISOLATION VALVE
RAT-NU-1652-VLV-HSJ01AA680

NU HSJ01AA680	AMMONIA ACCUMULATOR VESSEL B DRAIN HEADER VENT SAMPLING VALVE
	RAT-NU-1652-VLV-HSJ01AA681
NU HSJ01AA681	AMMONIA ACCUMULATOR VESSEL B RELIEF VENT SAMPLING VALVE
	RAT-NU-1652-VLV-HSJ01AA831
NU HSJ01AA831	AMMONIA ACCUMULATOR VESSEL B NITROGEN PURGE ISOLATION VALVE 1
	RAT-NU-1652-VLV-HSJ01AA832
NU HSJ01AA832	AMMONIA ACCUMULATOR VESSEL B NITROGEN PURGE ISOLATION VALVE 2
	RAT-NU-1652-VLV-HSJ01AA833
NU HSJ01AA833	AMMONIA ACCUMULATOR VESSEL B OUTLET NITROGEN PURGE ISOLATION VALVE 1
	RAT-NU-1652-VLV-HSJ01AA834
NU HSJ01AA834	AMMONIA ACCUMULATOR VESSEL B OUTLET NITROGEN PURGE ISOLATION VALVE 2
	RAT-NU-1652-VLV-HSJ02AA543
NU HSJ02AA543	AMMONIA ACCUMULATOR VESSEL B MAINTENANCE VENT ISOLATION VALVE
	RAT-NU-1652-VSL
	AMMONIA ACCUMULATOR B SYSTEM - VESSEL
	RAT-NU-1652-VSL-HSJ01BB007
NU HSJ01BB007	AMMONIA ACCUMULATOR VESSEL B
	RAT-NU-1653
	AMMONIA ACCUMULATOR INSTRUMENT AIR SYSTEM
	RAT-NU-1653-APN
	AMMONIA ACCUMULATOR INSTRUMENT AIR SYSTEM - PNEUMATIC ACTUATOR
	RAT-NU-1653-APN-QEB01AA140
NU QEB01AA140	AMMONIA ACCUMULATOR SKID SIS INSTRUMENT AIR SHUT-OFF VALVE 1 ACTUATOR
	RAT-NU-1653-APN-QEB01AA141
NU QEB01AA141	AMMONIA ACCUMULATOR SKID SIS INSTRUMENT AIR SHUT-OFF VALVE 2 ACTUATOR
	RAT-NU-1653-PGS
	AMMONIA ACCUMULATOR INSTRUMENT AIR SYSTEM - PRESSURE GAUGE
	RAT-NU-1653-PGS-QEB01CP009
NU QEB01CP009	AMMONIA ACCUMULATOR SKID INSTRUMENT AIR SUPPLY PRESSURE INDICATOR
	RAT-NU-1653-SOL
	AMMONIA ACCUMULATOR INSTRUMENT AIR SYSTEM - SOLENOID
	RAT-NU-1653-SOL-QEB01AA140
NU QEB01AA140	AMMONIA ACCUMULATOR SKID SIS INSTRUMENT AIR SHUT-OFF VALVE 1 SOLENOID
	RAT-NU-1653-SOL-QEB01AA141
NU QEB01AA141	AMMONIA ACCUMULATOR SKID SIS INSTRUMENT AIR SHUT-OFF VALVE 2 SOLENOID
	RAT-NU-1653-SWX
	AMMONIA ACCUMULATOR INSTRUMENT AIR SYSTEM - AUXILIARY SWITCH
	RAT-NU-1653-SWX-QEB01CG140
NU QEB01CG140	AMMONIA ACCUMULATOR SKID SIS INSTRUMENT AIR SHUT-OFF VALVE 1 LIMIT SWITCH
	RAT-NU-1653-SWX-QEB01CG141
NU QEB01CG141	AMMONIA ACCUMULATOR SKID SIS INSTRUMENT AIR SHUT-OFF VALVE 2 LIMIT SWITCH
	RAT-NU-1653-VLV
	AMMONIA ACCUMULATOR INSTRUMENT AIR SYSTEM - VALVE
	RAT-NU-1653-VLV-QEB01AA067

NU QEB01AA067	AMMONIA ACCUMULATOR SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 1
	RAT-NU-1653-VLV-QEB01AA068
NU QEB01AA068	AMMONIA ACCUMULATOR SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 2
	RAT-NU-1653-VLV-QEB01AA069
NU QEB01AA069	AMMONIA ACCUMULATOR SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 3
	RAT-NU-1653-VLV-QEB01AA070
NU QEB01AA070	AMMONIA ACCUMULATOR SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 4
	RAT-NU-1653-VLV-QEB01AA071
NU QEB01AA071	AMMONIA ACCUMULATOR SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 5
	RAT-NU-1653-VLV-QEB01AA072
NU QEB01AA072	AMMONIA ACCUMULATOR SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 6
	RAT-NU-1653-VLV-QEB01AA127
NU QEB01AA127	AMMONIA ACCUMULATOR SKID SIS INSTRUMENT AIR SHUT-OFF VALVE 1 AIR SUPPLY ISOLATION VALVE
	RAT-NU-1653-VLV-QEB01AA128
NU QEB01AA128	AMMONIA ACCUMULATOR SKID SIS INSTRUMENT AIR SHUT-OFF VALVE 2 AIR SUPPLY ISOLATION VALVE
	RAT-NU-1653-VLV-QEB01AA140
NU QEB01AA140	AMMONIA ACCUMULATOR SKID SIS INSTRUMENT AIR SHUT-OFF VALVE 1
	RAT-NU-1653-VLV-QEB01AA141
NU QEB01AA141	AMMONIA ACCUMULATOR SKID SIS INSTRUMENT AIR SHUT-OFF VALVE 2
	RAT-NU-1653-VLV-QEB01AA309
NU QEB01AA309	AMMONIA ACCUMULATOR SKID INSTRUMENT AIR SUPPLY PRESSURE INDICATOR ISOLATION VALVE
	RAT-NU-166
	AMMONIA SCRUBBER SYSTEM
	RAT-NU-1660
	AMMONIA SCRUBBER SYSTEM
	RAT-NU-1660-ESB
	AMMONIA SCRUBBER SYSTEM - ESB
	RAT-NU-1660-ESB-QHT01AP001
NU QHT01AP001	AMMONIA SCRUBBER RECIRCULATION PUMP 1 MOTOR E-STOP
	RAT-NU-1660-ESB-QHT01AP002
NU QHT01AP002	AMMONIA SCRUBBER RECIRCULATION PUMP 2 MOTOR E-STOP
	RAT-NU-1660-HTR
	AMMONIA SCRUBBER SYSTEM - HEATER
	RAT-NU-1660-HTR-QHT01AE001
NU QHT01AE001	AMMONIA SCRUBBER RECIRCULATION PUMP 1 MOTOR ANTI CONDENSATION HEATER
	RAT-NU-1660-HTR-QHT01AE002
NU QHT01AE002	AMMONIA SCRUBBER RECIRCULATION PUMP 2 MOTOR ANTI CONDENSATION HEATER
	RAT-NU-1660-HTR-QHT01AH001
NU QHT01AH001	AMMONIA PLANT SCRUBBER SUMP HEATER
	RAT-NU-1660-HTR-QHT01AH010
NU QHT01AH010	AMMONIA PLANT SCRUBBER TRACE HEATING
	RAT-NU-1660-INS
	AMMONIA SCRUBBER SYSTEM - INSTRUMENT
	RAT-NU-1660-INS-QHT01CF001

NU QHT01CF001	AMMONIA SCRUBBER VENTURI EDUCTOR SULPHURIC ACID RECIRCULATION FLOW INDICATING SWITCH
	RAT-NU-1660-INS-QHT01CF002
NU QHT01CF002	AMMONIA SCRUBBER SULPHURIC ACID RECIRCULATION FLOW INDICATING SWITCH
	RAT-NU-1660-INS-QHT01CQ001
NU QHT01CQ001	AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK SUMP CONDUCTIVITY TRANSMITTER
	RAT-NU-1660-INS-QHT01CU001
NU QHT01CU001	AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK BURSTING DISC
	RAT-NU-1660-LVS
	AMMONIA SCRUBBER SYSTEM - LEVEL SWITCH
	RAT-NU-1660-LVS-QHT01CL002
NU QHT01CL002	AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK BUND LEVEL SWITCH
	RAT-NU-1660-MTR
	AMMONIA SCRUBBER SYSTEM - MOTOR
	RAT-NU-1660-MTR-QHT01AE001
NU QHT01AE001	AMMONIA SCRUBBER RECIRCULATION PUMP 1 MOTOR
	RAT-NU-1660-MTR-QHT01AE002
NU QHT01AE002	AMMONIA SCRUBBER RECIRCULATION PUMP 2 MOTOR
	RAT-NU-1660-PGS
	AMMONIA SCRUBBER SYSTEM - PRESSURE GAUGE
	RAT-NU-1660-PGS-QHT01CP001
NU QHT01CP001	AMMONIA SCRUBBER KNOCK-OUT POT OUTLET PRESSURE INDICATOR
	RAT-NU-1660-PMP
	AMMONIA SCRUBBER SYSTEM - PUMP
	RAT-NU-1660-PMP-QHT01AP001
NU QHT01AP001	AMMONIA SCRUBBER RECIRCULATION PUMP 1
	RAT-NU-1660-PMP-QHT01AP002
NU QHT01AP002	AMMONIA SCRUBBER RECIRCULATION PUMP 2
	RAT-NU-1660-PNL
	AMMONIA SCRUBBER SYSTEM - CONTROL PANEL
	RAT-NU-1660-PNL-QHT01GH001
NU QHT01GH001	AMMONIA SCRUBBER MECHANICAL VALVE PANEL
	RAT-NU-1660-RTD
	AMMONIA SCRUBBER SYSTEM - RTD
	RAT-NU-1660-RTD-QHT01CT110
NU QHT01CT110	AMMONIA PLANT SCRUBBER TRACE HEATING RTD
	RAT-NU-1660-SWT
	AMMONIA SCRUBBER SYSTEM - SWITCH
	RAT-NU-1660-SWT-HSN01CT010
NU HSN01CT010	AMMONIA SCRUBBER SUMP HEATER MANUAL RESET OVER TEMP THERMOSTAT
	RAT-NU-1660-SWT-HSN01CT011
NU HSN01CT011	AMMONIA SCRUBBER SUMP HEATER MANUAL RESET TERM BOX OVER TEMP CUTOUT.
	RAT-NU-1660-SWX
	AMMONIA SCRUBBER SYSTEM - AUXILIARY SWITCH
	RAT-NU-1660-SWX-QHT01GS001

NU QHT01GS001	AMMONIA SCRUBBER RECIRCULATION PUMP 1 MOTOR ISOLATOR
	RAT-NU-1660-SWX-QHT01GS002
NU QHT01GS002	AMMONIA SCRUBBER RECIRCULATION PUMP 2 MOTOR ISOLATOR
	RAT-NU-1660-SWX-QHT01GS003
NU QHT01GS003	AMMONIA SCRUBBER HEATER ISOLATOR
	RAT-NU-1660-TCO
	AMMONIA SCRUBBER SYSTEM - THERMOCOUPLE
	RAT-NU-1660-TCO-HSJ01CT105
NU HSJ01CT105	AMMONIA SCRUBBER RECIRCULATION PUMP 1 MOTOR THERMISTOR
	RAT-NU-1660-TCO-HSJ01CT106
NU HSJ01CT106	AMMONIA SCRUBBER RECIRCULATION PUMP 2 MOTOR THERMISTOR
	RAT-NU-1660-TCO-QHT01CT101
NU QHT01CT101	AMMONIA SCRUBBER RECIRCULATION PUMP 1 MOTOR THERMISTOR
	RAT-NU-1660-TCO-QHT01CT102
NU QHT01CT102	AMMONIA SCRUBBER RECIRCULATION PUMP 2 MOTOR THERMISTOR
	RAT-NU-1660-TNK
	AMMONIA SCRUBBER SYSTEM - TANK
	RAT-NU-1660-TNK-HSJ01BB008
NU HSJ01BB008	AMMONIA SCRUBBER KNOCK-OUT POT
	RAT-NU-1660-TNK-HSJ01BB009
NU HSJ01BB009	AMMONIA RELIEF SYSTEM KNOCK-OUT POT
	RAT-NU-1660-TNK-QHT01AT001
NU QHT01AT001	AMMONIA SCRUBBER
	RAT-NU-1660-TNK-QHT01BB001
NU QHT01BB001	AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK
	RAT-NU-1660-TNK-QHT01BN001
NU QHT01BN001	AMMONIA SCRUBBER SKID VENTURI EDUCTOR
	RAT-NU-1660-TXS
	AMMONIA SCRUBBER SYSTEM - TRANSMITTER
	RAT-NU-1660-TXS-QHT01CL001
NU QHT01CL001	AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK SUMP LEVEL TRANSMITTER
	RAT-NU-1660-TXS-QHT01CT001
NU QHT01CT001	AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK SUMP TEMPERATURE TRANSMITTER
	RAT-NU-1660-VLV
	AMMONIA SCRUBBER SYSTEM - VALVE
	RAT-NU-1660-VLV-HSJ01AA296
NU HSJ01AA296	AMMONIA SCRUBBER KNOCK-OUT POT SAFETY RELIEF VALVE
	RAT-NU-1660-VLV-HSJ01AA638
NU HSJ01AA638	AMMONIA PLANT MAIN VENT HEADER SCRUBBER BYPASS VENT ISOLATION VALVE
	RAT-NU-1660-VLV-HSJ01AA639
NU HSJ01AA639	AMMONIA SCRUBBER KNOCK-OUT POT RELIEF VENT ISOLATION VALVE
	RAT-NU-1660-VLV-HSJ01AA640
NU HSJ01AA640	AMMONIA PLANT MAIN VENT TO SCRUBBER KNOCK-OUT POT ISOLATION VALVE 1
	RAT-NU-1660-VLV-HSJ01AA641

NU HSJ01AA641	AMMONIA PLANT MAIN VENT TO SCRUBBER KNOCK-OUT POT ISOLATION VALVE 2
	RAT-NU-1660-VLV-HSJ01AA863
NU HSJ01AA863	AMMONIA PLANT MAIN VENT TO SCRUBBER KNOCK-OUT POT NITROGEN PURGE ISOLATION VALVE 1
	RAT-NU-1660-VLV-HSJ01AA864
NU HSJ01AA864	AMMONIA PLANT MAIN VENT TO SCRUBBER KNOCK-OUT POT NITROGEN PURGE ISOLATION VALVE 2
	RAT-NU-1660-VLV-HSJ01AA950
NU HSJ01AA950	AMMONIA SCRUBBER KNOCK-OUT POT DRAIN ISOLATION VALVE 1
	RAT-NU-1660-VLV-HSJ01AA951
NU HSJ01AA951	AMMONIA SCRUBBER KNOCK-OUT POT DRAIN ISOLATION VALVE 2
	RAT-NU-1660-VLV-HSJ01AA952
NU HSJ01AA952	AMMONIA RELIEF SYSTEM KNOCK-OUT POT DRAIN ISOLATION VALVE 1
	RAT-NU-1660-VLV-HSJ01AA953
NU HSJ01AA953	AMMONIA RELIEF SYSTEM KNOCK-OUT POT DRAIN ISOLATION VALVE 2
	RAT-NU-1660-VLV-HSJ01AA968
NU HSJ01AA968	AMMONIA PLANT MAIN VENT TO SCRUBBER KNOCK-OUT POT BLEED ISOLATION VALVE 1
	RAT-NU-1660-VLV-HSJ01AA969
NU HSJ01AA969	AMMONIA PLANT MAIN VENT TO SCRUBBER KNOCK-OUT POT BLEED ISOLATION VALVE 2
	RAT-NU-1660-VLV-HSJ02AA678
NU HSJ02AA678	AMMONIA SCRUBBER KNOCK-OUT POT OUTLET SAMPLE ISOLATION VALVE
	RAT-NU-1660-VLV-QEB01AA142
NU QEB01AA142	AMMONIA SCRUBBER SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 1
	RAT-NU-1660-VLV-QEB01AA143
NU QEB01AA143	AMMONIA SCRUBBER SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE 2
	RAT-NU-1660-VLV-QHT01AA001
NU QHT01AA001	AMMONIA SCRUBBER SKID VENTURI EDUCTOR INLET DOUBLE-ACTING REGULATING VALVE
	RAT-NU-1660-VLV-QHT01AA002
NU QHT01AA002	AMMONIA SCRUBBER SKID VENTURI EDUCTOR SULPHURIC ACID RECIRCULATION DIAPHRAGM VALVE
	RAT-NU-1660-VLV-QHT01AA003
NU QHT01AA003	AMMONIA SCRUBBER SULPHURIC ACID RECIRCULATION DIAPHRAGM VALVE
	RAT-NU-1660-VLV-QHT01AA004
NU QHT01AA004	AMMONIA SCRUBBER SULPHURIC ACID RECIRCULATION PUMP 1 DISCHARGE NON-RETURN VALVE
	RAT-NU-1660-VLV-QHT01AA005
NU QHT01AA005	AMMONIA SCRUBBER SULPHURIC ACID RECIRCULATION PUMP 2 DISCHARGE NON-RETURN VALVE
	RAT-NU-1660-VLV-QHT01AA006
NU QHT01AA006	AMMONIA SCRUBBER SULPHURIC ACID RECIRCULATION PUMP 1 ISOLATION VALVE
	RAT-NU-1660-VLV-QHT01AA007
NU QHT01AA007	AMMONIA SCRUBBER SULPHURIC ACID RECIRCULATION PUMP 2 ISOLATION VALVE
	RAT-NU-1660-VLV-QHT01AA008
NU QHT01AA008	AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK FILLING CONNECTION (FROM TANKER) ISOLATION VALVE
	RAT-NU-1660-VLV-QHT01AA009
NU QHT01AA009	AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK DISCHARGE (TO TANKER) ISOLATION VALVE
	RAT-NU-1660-VLV-QHT01AA010
NU QHT01AA010	AMMONIA SCRUBBER SULPHURIC ACID RECIRCULATION DISCHARGE (TO TANKER) FLOW CONTROL VALVE

RAT-NU-1660-VLV-QHT01AA011
NU QHT01AA011 AMMONIA SCRUBBER SPENT SULPHURIC ACID DISCHARGE (TO TANKER) FLOW CONTROL VALVE
RAT-NU-1660-VLV-QHT01AA012
NU QHT01AA012 AMMONIA SCRUBBER VENTURI EDUCTOR INLET ISOLATION VALVE
RAT-NU-1660-VLV-QHT01AA301
NU QHT01AA301 AMMONIA SCRUBBER KNOCK-OUT POT OUTLET PRESSURE INDICATOR ISOLATION VALVE
RAT-NU-1660-VLV-QHT01AA401
NU QHT01AA401 AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK SUMP DRAIN ISOLATION VALVE
RAT-NU-1660-VLV-QHT01AA402
NU QHT01AA402 AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK BUND DRAIN ISOLATION VALVE
RAT-NU-1660-VLV-QHT01AA403
NU QHT01AA403 AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK TANKER CONNECTION DELIVERY DRAIN ISOLATION VALVE
RAT-NU-1660-VLV-QHT01AA404
NU QHT01AA404 AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK TANKER CONNECTION DISCHARGE DRAIN ISOLATION VALVE
RAT-NU-1660-VLV-QHT01AA405
NU QHT01AA405 AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK FILLING CONNECTION (FROM TANKER) DRAIN VALVE
RAT-NU-1660-VLV-QHT01AA406
NU QHT01AA406 AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK DISCHARGE (TO TANKER) DRAIN VALVE
RAT-NU-1660-VLV-QHT01AA651
NU QHT01AA651 AMMONIA SCRUBBER SULPHURIC ACID RECIRCULATION SAMPLE ISOLATION VALVE
RAT-NU-1660-VLV-QHT01AA652
NU QHT01AA652 AMMONIA SCRUBBER SULPHURIC ACID HOLDING TANK SAMPLE ISOLATION VALVE
RAT-NU-1660-VLV-QHT01AA653
NU QHT01AA653 AMMONIA SCRUBBER SULPHURIC ACID SAMPLE ISOLATION VALVE 1
RAT-NU-1660-VLV-QHT01AA654
NU QHT01AA654 AMMONIA SCRUBBER SULPHURIC ACID SAMPLE ISOLATION VALVE 2
RAT-NU-167
AMMONIA FOGGING SYSTEM
RAT-NU-1670
AMMONIA FOGGING SYSTEM
RAT-NU-1670-FLT
AMMONIA FOGGING SYSTEM - FILTER
RAT-NU-1670-FLT-SGA01AT001
NU SGA01AT001 AMMONIA PLANT AREA FIRE & AMMONIA MITIGATION WATER SPRAY SYSTEM SUPPLY LINE STRAINER
RAT-NU-1670-FLT-SGC01AT001
NU SGC01AT001 CONTAINED AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM STRAINER
RAT-NU-1670-FLT-SGC01AT101
NU SGC01AT101 TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM STRAINER
RAT-NU-1670-ORI
AMMONIA FOGGING SYSTEM - ORIFICE
RAT-NU-1670-ORI-SGC01BP001
NU SGC01BP001 CONTAINED AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM ORIFICE
RAT-NU-1670-ORI-SGC01BP101

NU SGC01BP101	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM ORIFICE
	RAT-NU-1670-PGS
	AMMONIA FOGGING SYSTEM - PRESSURE GAUGE
	RAT-NU-1670-PGS-SGA01CP001
NU SGA01CP001	FOGGING WATER MAIN SUPPLY PRESSURE INDICATOR
	RAT-NU-1670-PGS-SGC01CP002
NU SGC01CP002	CONTAINED AREA AMMONIA MITIGATION WATER SPRAY SYSTEM PRESSURE INDICATOR
	RAT-NU-1670-PGS-SGC01CP102
NU SGC01CP102	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY SYSTEM PRESSURE INDICATOR
	RAT-NU-1670-PSW
	AMMONIA FOGGING SYSTEM - PRESSURE SWITCH
	RAT-NU-1670-PSW-SGC01CP001
NU SGC01CP001	CONTAINED AREA AMMONIA MITIGATION WATER SPRAY SYSTEM PRESSURE SWITCH
	RAT-NU-1670-PSW-SGC01CP101
NU SGC01CP101	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY SYSTEM PRESSURE SWITCH
	RAT-NU-1670-RTD
	AMMONIA FOGGING SYSTEM - RTD
	RAT-NU-1670-RTD-HSJ01CT113
NU HSJ01CT113	FIRE MAIN / FOGGING SYSTEM TRACE HEATING 1 RTD
	RAT-NU-1670-RTD-HSJ01CT114
NU HSJ01CT114	FIRE MAIN / FOGGING SYSTEM TRACE HEATING 2 RTD
	RAT-NU-1670-VLV
	AMMONIA FOGGING SYSTEM - VALVE
	RAT-NU-1670-VLV-SGA01AA002
NU SGA01AA002	FOGGING WATER MAIN SUPPLY ISOLATION VALVE 2
	RAT-NU-1670-VLV-SGA01AA003
NU SGA01AA003	FIRE WATER SUPPLY 1 ISOLATION FIRE HYDRANT VALVE
	RAT-NU-1670-VLV-SGA01AA004
NU SGA01AA004	FIRE WATER SUPPLY 2 ISOLATION FIRE HYDRANT VALVE
	RAT-NU-1670-VLV-SGA01AA005
NU SGA01AA005	FOGGING WATER MAIN SUPPLY ISOLATION VALVE 1
	RAT-NU-1670-VLV-SGA01AA301
NU SGA01AA301	FOGGING WATER MAIN SUPPLY PRESSURE INDICATOR ISOLATION VALVE
	RAT-NU-1670-VLV-SGC01AA001
NU SGC01AA001	CONTAINED AREA AMMONIA MITIGATION WATER SPRAY SYSTEM ISOLATION VALVE 1
	RAT-NU-1670-VLV-SGC01AA002
NU SGC01AA002	CONTAINED AREA AMMONIA MITIGATION WATER SPRAY SYSTEM DELUGE VALVE
	RAT-NU-1670-VLV-SGC01AA003
NU SGC01AA003	CONTAINED AREA AMMONIA MITIGATION WATER SPRAY SYSTEM ISOLATION VALVE 2
	RAT-NU-1670-VLV-SGC01AA004
NU SGC01AA004	CONTAINED AREA AREA AMMONIA MITIGATION WATER SPRAY SYSTEM DRAIN VALVE
	RAT-NU-1670-VLV-SGC01AA005
NU SGC01AA005	CONTAINED AREA AMMONIA MITIGATION WATER SPRAY SYSTEM SOLENOID VALVE
	RAT-NU-1670-VLV-SGC01AA006

NU SGC01AA006	CONTAINED AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM PRESSURE INDICATOR ISOLATION VALVE	RAT-NU-1670-VLV-SGC01AA007
NU SGC01AA007	CONTAINED AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM NON RETURN VALVE	RAT-NU-1670-VLV-SGC01AA008
NU SGC01AA008	CONTAINED AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM BYPASS ISOLATION VALVE	RAT-NU-1670-VLV-SGC01AA009
NU SGC01AA009	CONTAINED AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM PRESSURE SWITCH ISOLATION VALVE	RAT-NU-1670-VLV-SGC01AA010
NU SGC01AA010	CONTAINED AREA AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM TEST LINE ISOLATION VALVE	RAT-NU-1670-VLV-SGC01AA011
NU SGC01AA011	CONTAINED AREA AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM MANUAL RELEASE VALVE	RAT-NU-1670-VLV-SGC01AA101
NU SGC01AA101	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY SYSTEM ISOLATION VALVE 1	RAT-NU-1670-VLV-SGC01AA102
NU SGC01AA102	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY SYSTEM DELUGE VALVE	RAT-NU-1670-VLV-SGC01AA103
NU SGC01AA103	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY SYSTEM ISOLATION VALVE 2	RAT-NU-1670-VLV-SGC01AA104
NU SGC01AA104	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY SYSTEM AUTOMATIC DRAIN VALVE	RAT-NU-1670-VLV-SGC01AA105
NU SGC01AA105	TANKER LAYBY AMMONIA MITIGATION WATER SPRAY SYSTEM SOLENOID VALVE	RAT-NU-1670-VLV-SGC01AA106
NU SGC01AA106	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM PRESSURE INDICATOR ISOLATION VALVE	RAT-NU-1670-VLV-SGC01AA107
NU SGC01AA107	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM NON RETURN VALVE	RAT-NU-1670-VLV-SGC01AA108
NU SGC01AA108	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM BYPASS ISOLATION VALVE	RAT-NU-1670-VLV-SGC01AA109
NU SGC01AA109	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM PRESSURE SWITCH ISOLATION VALVE	RAT-NU-1670-VLV-SGC01AA110
NU SGC01AA110	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM TEST LINE ISOLATION VALVE	RAT-NU-1670-VLV-SGC01AA111
NU SGC01AA111	TANKER LAYBY AREA AMMONIA MITIGATION WATER SPRAY DELUGE SYSTEM MANUAL RELEASE VALVE	RAT-NU-1670-VLV-SGC01AA112
NU SGC01AA112	TANKER LAYBY AMMONIA EXPOSURE COOLING WATER SYSTEM SOLENOID VALVE	RAT-NU-168
	AMMONIA LEAK DETECTION AND ALARM SYSTEM	RAT-NU-1680
	AMMONIA PLANT PERIMETER GAS DETECTORS	RAT-NU-1680-DET
	AMMONIA PLANT PERIMETER GAS DETECTORS - DETECTION	RAT-NU-1680-DET-QHS01CQ101

NU QHS01CQ101	AMMONIA PLANT WEST PERIMETER LINE OF SIGHT GAS DETECTOR A
	RAT-NU-1680-DET-QHS01CQ102
NU QHS01CQ102	AMMONIA PLANT WEST PERIMETER LINE OF SIGHT GAS DETECTOR B
	RAT-NU-1680-DET-QHS01CQ103
NU QHS01CQ103	AMMONIA PLANT SOUTH PERIMETER LINE OF SIGHT GAS DETECTOR A
	RAT-NU-1680-DET-QHS01CQ104
NU QHS01CQ104	AMMONIA PLANT SOUTH PERIMETER LINE OF SIGHT GAS DETECTOR B
	RAT-NU-1680-DET-QHS01CQ105
NU QHS01CQ105	AMMONIA PLANT EAST PERIMETER LINE OF SIGHT GAS DETECTOR A
	RAT-NU-1680-DET-QHS01CQ106
NU QHS01CQ106	AMMONIA PLANT EAST PERIMETER LINE OF SIGHT GAS DETECTOR B
	RAT-NU-1680-DET-QHS01CQ107
NU QHS01CQ107	AMMONIA PLANT NORTH PERIMETER LINE OF SIGHT GAS DETECTOR A
	RAT-NU-1680-DET-QHS01CQ108
NU QHS01CQ108	AMMONIA PLANT NORTH PERIMETER LINE OF SIGHT GAS DETECTOR B
	RAT-NU-1680-DET-SGY01CD101
NU SGY01CD101	AMMONIA PLANT MCC HOUSING NORTH SMOKE DETECTOR
	RAT-NU-1680-DET-SGY01CD102
NU SGY01CD102	AMMONIA PLANT MCC HOUSING SOUTH SMOKE DETECTOR
	RAT-NU-1680-TXS
	AMMONIA PLANT PERIMETER GAS DETECTORS - TRANSMITTER
	RAT-NU-1680-TXS-QHS01CQ101
NU QHS01CQ101	AMMONIA PLANT WEST PERIMETER LINE OF SIGHT GAS TRANSMITTER A
	RAT-NU-1680-TXS-QHS01CQ102
NU QHS01CQ102	AMMONIA PLANT WEST PERIMETER LINE OF SIGHT GAS TRANSMITTER B
	RAT-NU-1680-TXS-QHS01CQ103
NU QHS01CQ103	AMMONIA PLANT SOUTH PERIMETER LINE OF SIGHT GAS TRANSMITTER A
	RAT-NU-1680-TXS-QHS01CQ104
NU QHS01CQ104	AMMONIA PLANT SOUTH PERIMETER LINE OF SIGHT GAS TRANSMITTER B
	RAT-NU-1680-TXS-QHS01CQ105
NU QHS01CQ105	AMMONIA PLANT EAST PERIMETER LINE OF SIGHT GAS TRANSMITTER A
	RAT-NU-1680-TXS-QHS01CQ106
NU QHS01CQ106	AMMONIA PLANT EAST PERIMETER LINE OF SIGHT GAS TRANSMITTER B
	RAT-NU-1680-TXS-QHS01CQ107
NU QHS01CQ107	AMMONIA PLANT NORTH PERIMETER LINE OF SIGHT GAS TRANSMITTER A
	RAT-NU-1680-TXS-QHS01CQ108
NU QHS01CQ108	AMMONIA PLANT NORTH PERIMETER LINE OF SIGHT GAS TRANSMITTER B
	RAT-NU-1681
	AMMONIA OFFLOADING GAS DETECTOR
	RAT-NU-1681-DET
	AMMONIA OFFLOADING GAS DETECTOR - DETECTOR
	RAT-NU-1681-DET-QHS01CQ109
NU QHS01CQ109	AMMONIA PLANT OFFLOADING STATION A NORTH POINT GAS DETECTOR A
	RAT-NU-1681-DET-QHS01CQ110

NU QHS01CQ110	AMMONIA PLANT OFFLOADING STATION A NORTH POINT GAS DETECTOR B
	RAT-NU-1681-DET-QHS01CQ111
NU QHS01CQ111	AMMONIA PLANT OFFLOADING STATION A NORTH POINT GAS DETECTOR C
	RAT-NU-1681-DET-QHS01CQ112
NU QHS01CQ112	AMMONIA PLANT OFFLOADING STATION B NORTH POINT GAS DETECTOR A
	RAT-NU-1681-DET-QHS01CQ113
NU QHS01CQ113	AMMONIA PLANT OFFLOADING STATION B NORTH POINT GAS DETECTOR B
	RAT-NU-1681-DET-QHS01CQ114
NU QHS01CQ114	AMMONIA PLANT OFFLOADING STATION B NORTH POINT GAS DETECTOR C
	RAT-NU-1681-DET-QHS01CQ115
NU QHS01CQ115	AMMONIA PLANT OFFLOADING STATION A CENTRAL POINT GAS DETECTOR A
	RAT-NU-1681-DET-QHS01CQ116
NU QHS01CQ116	AMMONIA PLANT OFFLOADING STATION A CENTRAL POINT GAS DETECTOR B
	RAT-NU-1681-DET-QHS01CQ117
NU QHS01CQ117	AMMONIA PLANT OFFLOADING STATION A CENTRAL POINT GAS DETECTOR C
	RAT-NU-1681-DET-QHS01CQ118
NU QHS01CQ118	AMMONIA PLANT OFFLOADING STATION A SOUTH POINT GAS DETECTOR A
	RAT-NU-1681-DET-QHS01CQ119
NU QHS01CQ119	AMMONIA PLANT OFFLOADING STATION A SOUTH POINT GAS DETECTOR B
	RAT-NU-1681-DET-QHS01CQ120
NU QHS01CQ120	AMMONIA PLANT OFFLOADING STATION A SOUTH POINT GAS DETECTOR C
	RAT-NU-1681-DET-QHS01CQ121
NU QHS01CQ121	AMMONIA PLANT OFFLOADING STATION B CENTRAL POINT GAS DETECTOR A
	RAT-NU-1681-DET-QHS01CQ122
NU QHS01CQ122	AMMONIA PLANT OFFLOADING STATION B CENTRAL POINT GAS DETECTOR B
	RAT-NU-1681-DET-QHS01CQ123
NU QHS01CQ123	AMMONIA PLANT OFFLOADING STATION B CENTRAL POINT GAS DETECTOR C
	RAT-NU-1681-DET-QHS01CQ124
NU QHS01CQ124	AMMONIA PLANT OFFLOADING STATION B SOUTH POINT GAS DETECTOR A
	RAT-NU-1681-DET-QHS01CQ125
NU QHS01CQ125	AMMONIA PLANT OFFLOADING STATION B SOUTH POINT GAS DETECTOR B
	RAT-NU-1681-DET-QHS01CQ126
NU QHS01CQ126	AMMONIA PLANT OFFLOADING STATION B SOUTH POINT GAS DETECTOR C
	RAT-NU-1682
	AMMONIA STORAGE TANK GAS DETECTOR
	RAT-NU-1682-DET
	AMMONIA STORAGE TANK GAS DETECTOR - DETECTOR
	RAT-NU-1682-DET-QHS01CQ127
NU QHS01CQ127	AMMONIA PLANT STORAGE TANK AREA WEST ACOUSTIC GAS DETECTOR
	RAT-NU-1682-DET-QHS01CQ128
NU QHS01CQ128	AMMONIA PLANT STORAGE TANK AREA EAST ACOUSTIC GAS DETECTOR
	RAT-NU-1682-DET-QHS01CQ131
NU QHS01CQ131	AMMONIA PLANT STORAGE TANK SOUTH WEST POINT GAS DETECTOR A
	RAT-NU-1682-DET-QHS01CQ132

NU QHS01CQ132	AMMONIA PLANT STORAGE TANK SOUTH WEST POINT GAS DETECTOR B
	RAT-NU-1682-DET-QHS01CQ133
NU QHS01CQ133	AMMONIA PLANT STORAGE TANK A POINT GAS DETECTOR A
	RAT-NU-1682-DET-QHS01CQ134
NU QHS01CQ134	AMMONIA PLANT STORAGE TANK A POINT GAS DETECTOR B
	RAT-NU-1682-DET-QHS01CQ135
NU QHS01CQ135	AMMONIA PLANT STORAGE TANK NORTH EAST POINT GAS DETECTOR A
	RAT-NU-1682-DET-QHS01CQ136
NU QHS01CQ136	AMMONIA PLANT STORAGE TANK NORTH EAST POINT GAS DETECTOR B
	RAT-NU-1682-DET-QHS01CQ137
NU QHS01CQ137	AMMONIA PLANT STORAGE TANK B POINT GAS DETECTOR A
	RAT-NU-1682-DET-QHS01CQ138
NU QHS01CQ138	AMMONIA PLANT STORAGE TANK B POINT GAS DETECTOR B
	RAT-NU-1682-DET-QHS01CQ139
NU QHS01CQ139	AMMONIA PLANT STORAGE TANK CENTRE ACCESS NORTH POINT GAS DETECTOR A
	RAT-NU-1682-DET-QHS01CQ140
NU QHS01CQ140	AMMONIA PLANT STORAGE TANK CENTRE ACCESS NORTH POINT GAS DETECTOR B
	RAT-NU-1682-DET-QHS01CQ141
NU QHS01CQ141	AMMONIA PLANT STORAGE TANK CENTRE ACCESS SOUTH POINT GAS DETECTOR A
	RAT-NU-1682-DET-QHS01CQ142
NU QHS01CQ142	AMMONIA PLANT STORAGE TANK CENTRE ACCESS SOUTH POINT GAS DETECTOR B
	RAT-NU-1682-DET-QHS01CQ165
NU QHS01CQ165	AMMONIA PANT STORAGE TANK CENTRE ACCESS NORTH POINT GAS DETECTOR C
	RAT-NU-1682-DET-QHS01CQ166
NU QHS01CQ166	AMMONIA PANT STORAGE TANK CENTRE ACCESS SOUTH POINT GAS DETECTOR C
	RAT-NU-1683
	AMMONIA VAPORISER GAS DETECTOR
	RAT-NU-1683-DET
	AMMONIA VAPORISER GAS DETECTOR - DETECTOR
	RAT-NU-1683-DET-QHS01CQ129
NU QHS01CQ129	AMMONIA PLANT VAPORISER AREA ACOUSTIC GAS DETECTOR
	RAT-NU-1683-DET-QHS01CQ143
NU QHS01CQ143	AMMONIA PLANT VAPORISER A AREA POINT GAS DETECTOR A
	RAT-NU-1683-DET-QHS01CQ144
NU QHS01CQ144	AMMONIA PLANT VAPORISER A AREA POINT GAS DETECTOR B
	RAT-NU-1683-DET-QHS01CQ145
NU QHS01CQ145	AMMONIA PLANT VAPORISER A WEST POINT GAS DETECTOR A
	RAT-NU-1683-DET-QHS01CQ146
NU QHS01CQ146	AMMONIA PLANT VAPORISER A WEST POINT GAS DETECTOR B
	RAT-NU-1683-DET-QHS01CQ147
NU QHS01CQ147	AMMONIA PLANT VAPORISER A CENTRE POINT GAS DETECTOR A
	RAT-NU-1683-DET-QHS01CQ148
NU QHS01CQ148	AMMONIA PLANT VAPORISER A CENTRE POINT GAS DETECTOR B
	RAT-NU-1683-DET-QHS01CQ149

NU QHS01CQ149	AMMONIA PLANT VAPORISER B AREA POINT GAS DETECTOR A
	RAT-NU-1683-DET-QHS01CQ150
NU QHS01CQ150	AMMONIA PLANT VAPORISER B AREA POINT GAS DETECTOR B
	RAT-NU-1683-DET-QHS01CQ151
NU QHS01CQ151	AMMONIA PLANT VAPORISER B WEST POINT GAS DETECTOR A
	RAT-NU-1683-DET-QHS01CQ152
NU QHS01CQ152	AMMONIA PLANT VAPORISER B WEST POINT GAS DETECTOR B
	RAT-NU-1683-DET-QHS01CQ153
NU QHS01CQ153	AMMONIA PLANT VAPORISER B CENTRE POINT GAS DETECTOR A
	RAT-NU-1683-DET-QHS01CQ154
NU QHS01CQ154	AMMONIA PLANT VAPORISER B CENTRE POINT GAS DETECTOR B
	RAT-NU-1683-DET-QHS01CQ155
NU QHS01CQ155	AMMONIA PLANT VAPORISER C AREA POINT GAS DETECTOR A
	RAT-NU-1683-DET-QHS01CQ156
NU QHS01CQ156	AMMONIA PLANT VAPORISER C AREA POINT GAS DETECTOR B
	RAT-NU-1683-DET-QHS01CQ157
NU QHS01CQ157	AMMONIA PLANT VAPORISER C WEST POINT GAS DETECTOR A
	RAT-NU-1683-DET-QHS01CQ158
NU QHS01CQ158	AMMONIA PLANT VAPORISER C WEST POINT GAS DETECTOR B
	RAT-NU-1683-DET-QHS01CQ159
NU QHS01CQ159	AMMONIA PLANT VAPORISER C CENTRE POINT GAS DETECTOR A
	RAT-NU-1683-DET-QHS01CQ160
NU QHS01CQ160	AMMONIA PLANT VAPORISER C CENTRE POINT GAS DETECTOR B
	RAT-NU-1684
	AMMONIA ACCUMULATOR GAS DETECTOR
	RAT-NU-1684-DET
	AMMONIA ACCUMULATOR GAS DETECTOR - DETECTOR
	RAT-NU-1684-DET-QHS01CQ130
NU QHS01CQ130	AMMONIA PLANT ACCUMULATOR AREA ACOUSTIC GAS DETECTOR
	RAT-NU-1684-DET-QHS01CQ161
NU QHS01CQ161	AMMONIA PLANT ACCUMULATOR AREA SOUTH WEST POINT GAS DETECTOR A
	RAT-NU-1684-DET-QHS01CQ162
NU QHS01CQ162	AMMONIA PLANT ACCUMULATOR AREA SOUTH WEST POINT GAS DETECTOR B
	RAT-NU-1684-DET-QHS01CQ163
NU QHS01CQ163	AMMONIA PLANT ACCUMULATOR AREA NORTH EAST POINT GAS DETECTOR A
	RAT-NU-1684-DET-QHS01CQ164
NU QHS01CQ164	AMMONIA PLANT ACCUMULATOR AREA NORTH EAST POINT GAS DETECTOR B
	RAT-NU-1685
	AMMONIA PLANT ALARMS
	RAT-NU-1685-ALA
	AMMONIA PLANT ALARMS - ALARM
	RAT-NU-1685-ALA-QHS01EH101
NU QHS01EH101	AMMONIA PLANT SOUTH GAS ALARM SOUNDER
	RAT-NU-1685-ALA-QHS01EH102

NU QHS01EH102	AMMONIA PLANT NORTH GAS AND FIRE ALARM SOUNDER
	RAT-NU-1685-ALA-QHS01EH151
NU QHS01EH151	AMMONIA PLANT SOUTH GAS ALARM BEACON
	RAT-NU-1685-ALA-QHS01EH152
NU QHS01EH152	AMMONIA PLANT NORTH GAS AND FIRE ALARM BEACON
	RAT-NU-1685-ALA-SGY01EH101
NU SGY01EH101	AMMONIA PLANT SOUTH FIRE ALARM SOUNDER
	RAT-NU-1685-ALA-SGY01EH102
NU SGY01EH102	AMMONIA PLANT NORTH FIRE ALARM SOUNDER
	RAT-NU-1685-ALA-SGY01EH151
NU SGY01EH151	AMMONIA PLANT SOUTH FIRE ALARM BEACON
	RAT-NU-1685-ALA-SGY01EH152
NU SGY01EH152	AMMONIA PLANT NORTH FIRE ALARM BEACON
	RAT-NU-1685-SWT
	AMMONIA PLANT ALARMS - AUXILIARY SWITCH
	RAT-NU-1685-SWT-SGY01CH101
NU SGY01CH101	AMMONIA PLANT MANUAL OFFLOADING STATION ALARM CALL POINT
	RAT-NU-1685-SWT-SGY01CH102
NU SGY01CH102	AMMONIA PLANT VAPORISER AREA MANUAL ALARM CALL POINT
	RAT-NU-1685-SWT-SGY01CH103
NU SGY01CH103	AMMONIA PLANT STORAGE TANK AREA NORTH EAST MANUAL ALARM CALL POINT
	RAT-NU-1685-SWT-SGY01CH104
NU SGY01CH104	AMMONIA PLANT STORAGE TANK AREA SOUTH EAST MANUAL ALARM CALL POINT
	RAT-NU-1685-SWT-SGY01CH105
NU SGY01CH105	AMMONIA PLANT SOUTH PERIMETER MANUAL ALARM CALL POINT
	RAT-NU-1685-SWT-SGY01CH106
NU SGY01CH106	AMMONIA PLANT SOUTH ENTRANCE EXTERNAL ALARM CALL POINT
	RAT-NU-1685-SWT-SGY01CH107
NU SGY01CH107	AMMONIA PLANT SOUTH ENTRANCE INTERNAL FIRE ALARM CALL POINT
	RAT-NU-1685-SWT-SGY01CH108
NU SGY01CH108	AMMONIA PLANT NORTH ENTRANCE EXTERNAL ALARM CALL POINT
	RAT-NU-1685-SWT-SGY01CH109
NU SGY01CH109	AMMONIA PLANT NORTH ENTRANCE INTERNAL FIRE ALARM CALL POINT
	RAT-NU-1686
	AMMONIA FLAME AND HEAT DETECTORS
	RAT-NU-1686-DET
	AMMONIA FLAME AND HEAT DETECTORS - DETECTOR
	RAT-NU-1686-DET-SGY01CB101
NU SGY01CB101	AMMONIA PLANT OFFLOADING STATION AREA FLAME DETECTOR 1
	RAT-NU-1686-DET-SGY01CB102
NU SGY01CB102	AMMONIA PLANT OFFLOADING STATION AREA FLAME DETECTOR 2
	RAT-NU-1686-DET-SGY01CB103
NU SGY01CB103	AMMONIA PLANT OFFLOADING STATION AREA FLAME DETECTOR 3
	RAT-NU-1686-DET-SGY01CB104

NU SGY01CB104	AMMONIA PLANT OFFLOADING STATION AREA FLAME DETECTOR 4
	RAT-NU-1686-DET-SGY01CT101
NU SGY01CT101	AMMONIA PLANT OFFLOADING STATION AREA HEAT DETECTOR 1
	RAT-NU-1686-DET-SGY01CT102
NU SGY01CT102	AMMONIA PLANT OFFLOADING STATION AREA HEAT DETECTOR 2
	RAT-NU-1686-DET-SGY01CT105
NU SGY01CT105	AMMONIA PLANT OFFLOADING STATION AREA HEAT DETECTOR 3
	RAT-NU-1686-DET-SGY01CT106
NU SGY01CT106	AMMONIA PLANT OFFLOADING STATION AREA HEAT DETECTOR 4
	RAT-NU-1686-HTR
	AMMONIA FLAME AND HEAT DETECTORS - HEATER
	RAT-NU-1686-HTR-SAC01AH011
NU SAC01AH011	FIRE SUPPRESSION BOTTLE STORE 1.25KW CONVECTOR HEATER
	RAT-NU-1686-INS
	AMMONIA FLAME AND HEAT DETECTORS - INSTRUMENT
	RAT-NU-1686-INS-SAC01CT004
NU SAC01CT004	FIRE SUPPRESSION BOTTLE STORE 1.25KW CONVECTOR HEATER FROST THERMOSTAT
	RAT-NU-1686-PNL
	AMMONIA FLAME AND HEAT DETECTORS - CONTROL PANEL
	RAT-NU-1686-PNL-HSJ01GH001
NU HSJ01GH001	AMMONIA PLANT FIRE SUPPRESION CONTROL PANEL
	RAT-NU-1686-SWX
	AMMONIA FLAME AND HEAT DETECTORS - AUXILIARY SWITCH
	RAT-NU-1686-SWX-SAC01GS015
NU SAC01GS015	FIRE SUPPRESSION BOTTLE STORE 1.25KW CONVECTOR HEATER SWITCHED SPUR
	RAT-NU-1687
	AMMONIA PLANT EMERGENCY SHUTDOWN
	RAT-NU-1687-ESB
	AMMONIA PLANT EMERGENCY SHUTDOWN - ESB
	RAT-NU-1687-ESB-HSJ01CH101
NU HSJ01CH101	AMMONIA PLANT MCC HOUSING EMERGENCY SHUTDOWN
	RAT-NU-1687-ESB-HSJ01CH102
NU HSJ01CH102	AMMONIA PLANT OUTSIDE MCC HOUSING EMERGENCY SHUTDOWN
	RAT-NU-1687-ESB-HSJ01CH103
NU HSJ01CH103	AMMONIA PLANT OFFLOADING STATION AREA EMERGENCY SHUTDOWN
	RAT-NU-1687-ESB-HSJ01CH104
NU HSJ01CH104	AMMONIA PLANT STORAGE TANK AREA NORTH EAST EMERGENCY SHUTDOWN
	RAT-NU-1687-ESB-HSJ01CH105
NU HSJ01CH105	AMMONIA PLANT STORAGE TANK AREA EAST SOUTH EMERGENCY SHUTDOWN
	RAT-NU-1687-ESB-HSJ01CH106
NU HSJ01CH106	AMMONIA PLANT SOUTH PERIMETER EMERGENCY SHUTDOWN
	RAT-NU-1687-ESB-HSJ01CH107
NU HSJ01CH107	AMMONIA PLANT VAPORISER AREA WEST EMERGENCY SHUTDOWN
	RAT-NU-1687-ESB-HSJ01CH108

NU HSJ01CH108	AMMONIA PLANT STORAGE TANK AREA WEST EMERGENCY SHUTDOWN
	RAT-NU-1687-ESB-HSJ01CH109
NU HSJ01CH109	AMMONIA PLANT VAPORISER AREA EAST EMERGENCY SHUTDOWN
	RAT-NU-1687-ESB-HSJ01CH500
NU HSJ01CH500	AMMONIA PLANT ESD PUSHBUTTON (MAIN CR)
	RAT-NU-1687-ESB-HSJ01CH501
NU HSJ01CH501	AMMONIA PLANT ESD PUSHBUTTON (LOCAL CR)
	RAT-NU-1687-ESB-HSJ01CH502
NU HSJ01CH502	AMMONIA PLANT ESD PUSHBUTTON (LOCAL WORKSTATION)
	RAT-NU-1687-ESB-HSJ01CH503
NU HSJ01CH503	AMMONIA PLANT ESD PUSHBUTTON (FIELD) A TO F
	RAT-NU-1687-ESB-HSJ02CH503
NU HSJ02CH503	AMMONIA PLANT ESD PUSHBUTTON (FIELD) C
	RAT-NU-169
	AMMONIA DISTRIBUTION SYSTEM
	RAT-NU-1690
	AMMONIA DISTRIBUTION SYSTEM
	RAT-NU-1690-HTR
	AMMONIA DISTRIBUTION SYSTEM - HEATER
	RAT-NU-1690-HTR-HSJ01AH016
NU HSJ01AH016	AMMONIA PIPE LINE A CIRCUIT TRACE HEATING
	RAT-NU-1690-HTR-HSJ01AH017
NU HSJ01AH017	AMMONIA PIPE LINE A HEADER TRACE HEATING
	RAT-NU-1690-HTR-HSJ01AH018
NU HSJ01AH018	AMMONIA PIPE LINE B CIRCUIT TRACE HEATING
	RAT-NU-1690-HTR-HSJ01AH019
NU HSJ01AH019	AMMONIA PIPE LINE B HEADER TRACE HEATING
	RAT-NU-1690-PGS
	AMMONIA DISTRIBUTION SYSTEM - PRESSURE GAUGE
	RAT-NU-1690-PGS-HSJ01CP030
NU HSJ01CP030	ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 1 PRESSURE INDICATOR
	RAT-NU-1690-PGS-HSJ01CP031
NU HSJ01CP031	ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 2 PRESSURE INDICATOR
	RAT-NU-1690-RTD
	AMMONIA DISTRIBUTION SYSTEM - RTD
	RAT-NU-1690-RTD-HSJ01CT116
NU HSJ01CT116	AMMONIA PIPE LINE A CIRCUIT TRACE HEATING RTD
	RAT-NU-1690-RTD-HSJ01CT117
NU HSJ01CT117	AMMONIA PIPE LINE A HEADER TRACE HEATING RTD
	RAT-NU-1690-RTD-HSJ01CT118
NU HSJ01CT118	AMMONIA PIPE LINE B CIRCUIT TRACE HEATING RTD
	RAT-NU-1690-RTD-HSJ01CT119
NU HSJ01CT119	AMMONIA PIPE LINE B HEADER TRACE HEATING RTD
	RAT-NU-1690-VLV

AMMONIA DISTRIBUTION SYSTEM - VALVE
RAT-NU-1690-VLV-HSJ01AA098
NU HSJ01AA098 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 1 ISOLATION VALVE 1
RAT-NU-1690-VLV-HSJ01AA099
NU HSJ01AA099 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 1 ISOLATION VALVE 2
RAT-NU-1690-VLV-HSJ01AA105
NU HSJ01AA105 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 2 ISOLATION VALVE 1
RAT-NU-1690-VLV-HSJ01AA106
NU HSJ01AA106 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 2 ISOLATION VALVE 2
RAT-NU-1690-VLV-HSJ01AA350
NU HSJ01AA350 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 1 PRESSURE INDICATOR ISOLATION VALVE
RAT-NU-1690-VLV-HSJ01AA351
NU HSJ01AA351 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 2 PRESSURE INDICATOR ISOLATION VALVE
RAT-NU-1690-VLV-HSJ01AA537
NU HSJ01AA537 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 2 BLEED ISOLATION VALVE 1
RAT-NU-1690-VLV-HSJ01AA538
NU HSJ01AA538 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 2 BLEED ISOLATION VALVE 2
RAT-NU-1690-VLV-HSJ01AA539
NU HSJ01AA539 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 1 BLEED ISOLATION VALVE 1
RAT-NU-1690-VLV-HSJ01AA540
NU HSJ01AA540 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 1 BLEED ISOLATION VALVE 2
RAT-NU-1690-VLV-HSJ01AA541
NU HSJ01AA541 ANHYDROUS AMMONIA VAPOUR DISTRIBUTION HEADER 1 NITROGEN PURGE VENT ISOLATION VALVE 2
RAT-NU-1690-VLV-HSJ01AA542
NU HSJ01AA542 ANHYDROUS AMMONIA VAPOUR DISTRIBUTION HEADER 1 NITROGEN PURGE VENT ISOLATION VALVE 1
RAT-NU-1690-VLV-HSJ01AA543
NU HSJ01AA543 ANHYDROUS AMMONIA VAPOUR DISTRIBUTION HEADER 2 NITROGEN PURGE VENT ISOLATION VALVE 2
RAT-NU-1690-VLV-HSJ01AA544
NU HSJ01AA544 ANHYDROUS AMMONIA VAPOUR DISTRIBUTION HEADER 2 NITROGEN PURGE VENT ISOLATION VALVE 1
RAT-NU-1690-VLV-HSJ01AA835
NU HSJ01AA835 ANHYDROUS AMMONIA VAPOUR DISTRIBUTION HEADER 1 NITROGEN PURGE SUPPLY ISOLATION VALVE 1
RAT-NU-1690-VLV-HSJ01AA836
NU HSJ01AA836 ANHYDROUS AMMONIA VAPOUR DISTRIBUTION HEADER 1 NITROGEN PURGE SUPPLY ISOLATION VALVE 2
RAT-NU-1690-VLV-HSJ01AA837
NU HSJ01AA837 ANHYDROUS AMMONIA VAPOUR DISTRIBUTION HEADER 2 NITROGEN PURGE SUPPLY ISOLATION VALVE 1
RAT-NU-1690-VLV-HSJ01AA838
NU HSJ01AA838 ANHYDROUS AMMONIA VAPOUR DISTRIBUTION HEADER 2 NITROGEN PURGE SUPPLY ISOLATION VALVE 2
RAT-NU-1690-VLV-HSJ01AA954
NU HSJ01AA954 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 2 DRAIN ISOLATION VALVE 1
RAT-NU-1690-VLV-HSJ01AA955
NU HSJ01AA955 ANHYDROUS AMMONIA VAPOUR MAIN SUPPLY HEADER 2 DRAIN ISOLATION VALVE 2
RAT-NU-7660-SWR-AM

NU AM SWITCHROOM AMMONIA PLANT
RAT-NU-8452-BKR-BFY01GS001
NU BFY01GS001 AMMONIA PLANT SWITCHBOARD INCOMING TRANSFORMER AM1
RAT-NU-8452-BKR-BFY01GS002
NU BFY01GS002 AMMONIA PLANT SWITCHBOARD INCOMING TRANSFORMER AM2
RAT-NU-8452-BKR-BFY01GS003
NU BFY01GS003 AMMONIA PLANT SWITCHBOARD BUSCOUPLER
RAT-NU-8452-SWG-BFA01GS001
NU BFA01GS001 415V AMMONIA PLANT SWITCHBOARD

ANEXO XVI: COMPLETE SCR SAP STRUCTURE**(Excluding ID Fans & Ammonia Common Plant)**

RAT-U3-3011
U3 A SCR INLET, OUTLET AND BYPASS DAMPERS
RAT-U3-3011-ACT
U3 A SCR INLET, OUTLET AND BYPASS DAMPERS - ACTUATORS
RAT-U3-3011-ACT-HNA10AA001
U3 HNA10AA001 A SIDE SCR BYPASS DAMPER TOP SEAL AIR VALVE ACTUATOR
RAT-U3-3011-ACT-HNA10AA002
U3 HNA10AA002 A SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR VALVE ACTUATOR
RAT-U3-3011-ACT-HNA10AA201
U3 HNA10AA201 A SIDE SCR INLET DAMPER ACTUATOR
RAT-U3-3011-ACT-HNA10AA202
U3 HNA10AA202 A SIDE SCR BYPASS DAMPER ACTUATOR
RAT-U3-3011-ACT-HSA10AA001
U3 HSA10AA001 A SIDE SCR OUTLET DAMPER ACTUATOR
RAT-U3-3011-DMP
U3 A SCR INLET, OUTLET AND BYPASS DAMPERS - DAMPERS
RAT-U3-3011-DMP-HNA10AA201
U3 HNA10AA201 A SIDE SCR INLET DAMPER
RAT-U3-3011-DMP-HNA10AA202
U3 HNA10AA202 A SIDE SCR BYPASS DAMPER
RAT-U3-3011-DMP-HSA10AA001
U3 HSA10AA001 A SIDE SCR OUTLET DAMPER
RAT-U3-3011-LIS
U3 A SCR INLET, OUTLET AND BYPASS DAMPERS - LOCAL ISOLATING SWITCH
RAT-U3-3011-LIS-HNA10GS003
U3 HNA10GS003 A SIDE SCR BYPASS DAMPER TOP SEAL AIR VALVE ACTUATOR ISOLATOR
RAT-U3-3011-LIS-HNA10GS004
U3 HNA10GS004 A SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR VALVE ACTUATOR ISOLATOR
RAT-U3-3011-LIS-HNA10GS201
U3 HNA10GS201 A SIDE SCR INLET DAMPER ACTUATOR ISOLATOR
RAT-U3-3011-LIS-HNA10GS202
U3 HNA10GS202 A SIDE SCR BYPASS DAMPER ACTUATOR ISOLATOR
RAT-U3-3011-LIS-HSA10GS003
U3 HSA10GS003 A SIDE SCR OUTLET DAMPER ACTUATOR ISOLATOR
RAT-U3-3011-PWK
U3 A SCR INLET, OUTLET AND BYPASS DAMPERS - SEAL AIR PIPEWORK
RAT-U3-3011-PWK-HNA10AT001
U3 HNA10AT001 A SIDE SCR BYPASS DAMPER TOP SEAL AIR PIPEWORK
RAT-U3-3011-PWK-HNA10AT002
U3 HNA10AT002 A SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR PIPEWORK
RAT-U3-3011-SWT
U3 A SCR INLET, OUTLET AND BYPASS DAMPER - SWITCH
RAT-U3-3011-SWT-HNA10AA001
U3 HNA10AA001 A SIDE SCR BYPASS DAMPER TOP SEAL AIR VALVE ACTUATOR ISOLATOR AT 3-N
RAT-U3-3011-SWT-HNA10AA002
U3 HNA10AA002 A SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR VALVE ACTUATOR ISOLATOR AT 3-N
RAT-U3-3011-SWT-HNA10AA201

U3 HNA10AA201 A SIDE SCR INLET DAMPER ACTUATOR ISOLATOR AT 3-N
RAT-U3-3011-SWT-HNA10AA202
U3 HNA10AA202 A SIDE SCR BYPASS DAMPER ACTUATOR ISOLATOR AT 3-N
RAT-U3-3011-SWT-HSA10AA001
U3 HSA10AA001 A SIDE SCR OUTLET DAMPER ACTUATOR ISOLATOR AT 3-N
RAT-U3-3011-SWX
U3 A SCR INLET, OUTLET AND BYPASS DAMPERS - AUXILIARY SWITCHES
RAT-U3-3011-SWX-HNA10CG001
U3 HNA10CG001 A SIDE SCR BYPASS DAMPER TOP SEAL AIR VALVE LIMIT SWITCH
RAT-U3-3011-SWX-HNA10CG002
U3 HNA10CG002 A SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR VALVE LIMIT SWITCH
RAT-U3-3011-SWX-HNA10CG201
U3 HNA10CG201 A SIDE SCR INLET DAMPER LIMIT SWITCH
RAT-U3-3011-SWX-HNA10CG202
U3 HNA10CG202 A SIDE SCR BYPASS DAMPER LIMIT SWITCH
RAT-U3-3011-SWX-HSA10CG001
U3 HSA10CG001 A SIDE SCR OUTLET DAMPER LIMIT SWITCH
RAT-U3-3011-TXS
U3 A SCR INLET, OUTLET AND BYPASS DAMPERS - TRANSMITTERS
RAT-U3-3011-TXS-HNA10CG201
U3 HNA10CG201 A SIDE SCR INLET DAMPER ACTUATOR POSITION TRANSMITTER
RAT-U3-3011-TXS-HNA10CG202
U3 HNA10CG202 A SIDE SCR BYPASS DAMPER ACTUATOR POSITION TRANSMITTER
RAT-U3-3011-VLV
U3 A SCR INLET, OUTLET AND BYPASS DAMPERS - VALVES
RAT-U3-3011-VLV-HNA10AA001
U3 HNA10AA001 A SIDE SCR BYPASS DAMPER TOP SEAL AIR VALVE
RAT-U3-3011-VLV-HNA10AA002
U3 HNA10AA002 A SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR VALVE
RAT-U3-3012
U3 B SCR INLET, OUTLET AND BPPASS DAMPERS
RAT-U3-3012-ACT
U3 B SCR INLET, OUTLET AND BYPASS DAMPERS - ACTUATORS
RAT-U3-3012-ACT-HNA20AA001
U3 HNA20AA001 B SIDE SCR BYPASS DAMPER TOP SEAL AIR VALVE ACTUATOR
RAT-U3-3012-ACT-HNA20AA002
U3 HNA20AA002 B SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR VALVE ACTUATOR
RAT-U3-3012-ACT-HNA20AA201
U3 HNA20AA201 B SIDE SCR INLET DAMPER ACTUATOR
RAT-U3-3012-ACT-HNA20AA202
U3 HNA20AA202 B SIDE SCR BYPASS DAMPER ACTUATOR
RAT-U3-3012-ACT-HSA20AA001
U3 HSA20AA001 B SIDE SCR OUTLET DAMPER ACTUATOR
RAT-U3-3012-DMP
U3 B SCR INLET, OUTLET AND BYPASS DAMPERS - DAMPERS
RAT-U3-3012-DMP-HNA20AA201
U3 HNA20AA201 B SIDE SCR INLET DAMPER
RAT-U3-3012-DMP-HNA20AA202
U3 HNA20AA202 B SIDE SCR BYPASS DAMPER
RAT-U3-3012-DMP-HSA20AA001
U3 HSA20AA001 B SIDE SCR OUTLET DAMPER
RAT-U3-3012-LIS

U3 B SCR INLET, OUTLET AND BYPASS DAMPERS - LOCAL ISOLATING SWITCH
RAT-U3-3012-LIS-HNA20GS003
U3 HNA20GS003 B SIDE SCR BYPASS DAMPER TOP SEAL AIR VALVE ACTUATOR ISOLATOR
RAT-U3-3012-LIS-HNA20GS004
U3 HNA20GS004 B SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR VALVE ACTUATOR ISOLATOR
RAT-U3-3012-LIS-HNA20GS201
U3 HNA20GS201 B SIDE SCR INLET DAMPER ACTUATOR ISOLATOR
RAT-U3-3012-LIS-HNA20GS202
U3 HNA20GS202 B SIDE SCR BYPASS DAMPER ACTUATOR ISOLATOR
RAT-U3-3012-LIS-HSA20GS003
U3 HSA20GS003 B SIDE SCR OUTLET DAMPER ACTUATOR ISOLATOR
RAT-U3-3012-PWK
U3 B SCR INLET, OUTLET AND BYPASS DAMPERS - SEAL AIR PIPEWORK
RAT-U3-3012-PWK-HNA20AT001
U3 HNA20AT001 B SIDE SCR BYPASS DAMPER TOP SEAL AIR PIPEWORK
RAT-U3-3012-PWK-HNA20AT002
U3 HNA20AT002 B SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR PIPEWORK
RAT-U3-3012-SWT
U3 B SCR INLET, OUTLET AND BYPASS DAMPER - SWITCH
RAT-U3-3012-SWT-HNA20AA001
U3 HNA20AA001 B SIDE SCR BYPASS DAMPER TOP SEAL AIR VALVE ACTUATOR ISOLATOR AT 3-N
RAT-U3-3012-SWT-HNA20AA002
U3 HNA20AA002 B SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR VALVE ACTUATOR ISOLATOR AT 3-N
RAT-U3-3012-SWT-HNA20AA201
U3 HNA20AA201 B SIDE SCR INLET DAMPER ACTUATOR ISOLATOR AT 3-N
RAT-U3-3012-SWT-HNA20AA202
U3 HNA20AA202 B SIDE SCR BYPASS DAMPER ACTUATOR ISOLATOR AT 3-N
RAT-U3-3012-SWT-HSA20AA001
U3 HSA20AA001 B SIDE SCR OUTLET DAMPER ACTUATOR ISOLATOR AT 3-N
RAT-U3-3012-SWX
U3 B SCR INLET, OUTLET AND BYPASS DAMPERS - AUXILIARY SWITCHES
RAT-U3-3012-SWX-HNA20CG001
U3 HNA20CG001 B SIDE SCR BYPASS DAMPER TOP SEAL AIR VALVE LIMIT SWITCH
RAT-U3-3012-SWX-HNA20CG002
U3 HNA20CG002 B SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR VALVE LIMIT SWITCH
RAT-U3-3012-SWX-HNA20CG201
U3 HNA20CG201 B SIDE SCR INLET DAMPER LIMIT SWITCH
RAT-U3-3012-SWX-HNA20CG202
U3 HNA20CG202 B SIDE SCR BYPASS DAMPER LIMIT SWITCH
RAT-U3-3012-SWX-HSA20CG001
U3 HSA20CG001 B SIDE SCR OUTLET DAMPER LIMIT SWITCH
RAT-U3-3012-TXS
U3 B SCR INLET, OUTLET AND BYPASS DAMPERS - TRANSMITTERS
RAT-U3-3012-TXS-HNA20CG201
U3 HNA20CG201 B SIDE SCR INLET DAMPER ACTUATOR POSITION TRANSMITTER
RAT-U3-3012-TXS-HNA20CG202
U3 HNA20CG202 B SIDE SCR BYPASS DAMPER ACTUATOR POSITION TRANSMITTER
RAT-U3-3012-VLV
U3 B SCR INLET, OUTLET AND BYPASS DAMPERS - VALVES
RAT-U3-3012-VLV-HNA20AA001
U3 HNA20AA001 B SIDE SCR BYPASS DAMPER TOP SEAL AIR VALVE
RAT-U3-3012-VLV-HNA20AA002

U3 HNA20AA002 B SIDE SCR BYPASS DAMPER BOTTOM SEAL AIR VALVE
RAT-U3-302
U3 SCR GAS PASS SYSTEM
RAT-U3-3020
U3 SCR COMMON GAS PASS DUCTINGS
RAT-U3-3020-JNT
U3 SCR COMMON GAS PASS - EXPANSION JOINTS
RAT-U3-3020-JNT-HSA01BR001
U3 HSA01BR001 EXPANSION JOINT AIR HEATER A - EJ7A
RAT-U3-3020-JNT-HSA01BR002
U3 HSA01BR002 EXPANSION JOINT AIR HEATER A - EJ8A
RAT-U3-3020-JNT-HSA01BR003
U3 HSA01BR003 EXPANSION JOINT AIR HEATER A - EJ9A
RAT-U3-3020-JNT-HSA01BR004
U3 HSA01BR004 EXPANSION JOINT AIR HEATER B - EJ10
RAT-U3-3020-JNT-HSA01BR005
U3 HSA01BR005 EXPANSION JOINT AIR HEATER B - EJ11
RAT-U3-3020-JNT-HSA01BR006
U3 HSA01BR006 EXPANSION JOINT AIR HEATER C - EJ7B
RAT-U3-3020-JNT-HSA01BR007
U3 HSA01BR007 EXPANSION JOINT AIR HEATER C - EJ8B
RAT-U3-3020-JNT-HSA01BR008
U3 HSA01BR008 EXPANSION JOINT AIR HEATER C - EJ9B
RAT-U3-3021
U3 A SCR GAS PASS INCLUDING GRIDS AND MIXER
RAT-U3-3021-GRD
U3 A SCR GAS PASS - GRIDS
RAT-U3-3021-GRD-HSD10AX001
U3 HSD10AX001 A SIDE SCR REACTOR MEASUREMENT GRID 1
RAT-U3-3021-GRD-HSD10AX002
U3 HSD10AX002 A SIDE SCR FLUE GAS SAMPLING GRID
RAT-U3-3021-GSG
U3 A SCR GAS PASS - GRADUATED STRAIGHTENING GRID
RAT-U3-3021-GSG-HSD10AM001
U3 HSD10AM001 A SIDE SCR GRADUATED STRAIGHTENING GRID
RAT-U3-3021-JNT
U3 A SCR GAS PASS - EXPANSION JOINTS
RAT-U3-3021-JNT-HNA10BR001
U3 HNA10BR001 EXPANSION JOINT A SIDE INLET - EJ1A
RAT-U3-3021-JNT-HNA10BR003
U3 HNA10BR003 EXPANSION JOINT A SIDE INLET - EJ3A
RAT-U3-3021-JNT-HNA10BR004
U3 HNA10BR004 EXPANSION JOINT A SIDE INLET - EJ5A
RAT-U3-3021-JNT-HNA10BR005
U3 HNA10BR005 EXPANSION JOINT A SIDE BYPASS - EJ4A
RAT-U3-3021-JNT-HSA10BR001
U3 HSA10BR001 EXPANSION JOINT A SIDE OUTLET - EJ6A
RAT-U3-3021-MXR
U3 A SCR GAS PASS - STATIC MIXER
RAT-U3-3021-MXR-HNA10AM001
U3 HNA10AM001 A SIDE SCR FLUE GAS MIXER
RAT-U3-3021-RTD

U3 A SCR GAS PASS - RTD - TEMP MEASUREMENT
RAT-U3-3021-RTD-HNA10CT001
U3 HNA10CT001 A SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 1
RAT-U3-3021-RTD-HNA10CT002
U3 HNA10CT002 A SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 2
RAT-U3-3021-RTD-HNA10CT003
U3 HNA10CT003 A SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 3
RAT-U3-3021-RTD-HNA10CT004
U3 HNA10CT004 A SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 4
RAT-U3-3021-RTD-HNA10CT005
U3 HNA10CT005 A SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 5
RAT-U3-3021-RTD-HNA10CT006
U3 HNA10CT006 A SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 6
RAT-U3-3021-RTD-HNA10CT007
U3 HNA10CT007 A SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 7
RAT-U3-3021-RTD-HNA10CT008
U3 HNA10CT008 A SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 8
RAT-U3-3021-RTD-HNA10CT009
U3 HNA10CT009 A SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 9
RAT-U3-3021-RTD-HNA10CT010
U3 HNA10CT010 A SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 10
RAT-U3-3021-RTD-HSA10CT001
U3 HSA10CT001 A SIDE SCR OUTLET TEMPERATURE MEASUREMENT ELEMENT 1
RAT-U3-3021-RTD-HSA10CT002
U3 HSA10CT002 A SIDE SCR OUTLET TEMPERATURE MEASUREMENT ELEMENT 2
RAT-U3-3021-RTD-HSA10CT003
U3 HSA10CT003 A SIDE SCR OUTLET TEMPERATURE MEASUREMENT ELEMENT 3
RAT-U3-3021-RTD-HSD10CT001
U3 HSD10CT001 A SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE ELEMENT 1
RAT-U3-3021-RTD-HSD10CT002
U3 HSD10CT002 A SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE ELEMENT 2
RAT-U3-3021-RTD-HSD10CT003
U3 HSD10CT003 A SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE ELEMENT 3
RAT-U3-3021-SCN
U3 A SCR GAS PASS ASH SCREEN
RAT-U3-3021-SCN-HSP10AT001
U3 HSP10AT001 A SIDE SCR LARGE PARTICLE ASH SCREEN
RAT-U3-3021-TXS
U3 A SCR GAS PASS - TRANSMITTERS
RAT-U3-3021-TXS-HNA10CP001
U3 HNA10CP001 A SIDE SCR SYSTEM DIFFERENTIAL PRESSURE TRANSMITTER 1
RAT-U3-3021-TXS-HNA10CP002
U3 HNA10CP002 A SIDE SCR INLET LARGE PARTICLE ASH SCREEN DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3021-TXS-HNA10CT001
U3 HNA10CT001 A SIDE SCR INLET TEMPERATURE TRANSMITTER 1
RAT-U3-3021-TXS-HNA10CT002
U3 HNA10CT002 A SIDE SCR INLET TEMPERATURE TRANSMITTER 2
RAT-U3-3021-TXS-HNA10CT003
U3 HNA10CT003 A SIDE SCR INLET TEMPERATURE TRANSMITTER 3
RAT-U3-3021-TXS-HNA10CT004
U3 HNA10CT004 A SIDE SCR INLET TEMPERATURE TRANSMITTER 4
RAT-U3-3021-TXS-HNA10CT005

U3 HNA10CT005	A SIDE SCR INLET TEMPERATURE TRANSMITTER 5
	RAT-U3-3021-TXS-HNA10CT006
U3 HNA10CT006	A SIDE SCR INLET TEMPERATURE TRANSMITTER 6
	RAT-U3-3021-TXS-HNA10CT007
U3 HNA10CT007	A SIDE SCR INLET TEMPERATURE TRANSMITTER 7
	RAT-U3-3021-TXS-HNA10CT008
U3 HNA10CT008	A SIDE SCR INLET TEMPERATURE TRANSMITTER 8
	RAT-U3-3021-TXS-HNA10CT009
U3 HNA10CT009	A SIDE SCR INLET TEMPERATURE TRANSMITTER 9
	RAT-U3-3021-TXS-HNA10CT010
U3 HNA10CT010	A SIDE SCR INLET TEMPERATURE TRANSMITTER 10
	RAT-U3-3021-TXS-HSA10CT001
U3 HSA10CT001	A SIDE SCR OUTLET TEMPERATURE TRANSMITTER 1
	RAT-U3-3021-TXS-HSA10CT002
U3 HSA10CT002	A SIDE SCR OUTLET TEMPERATURE TRANSMITTER 2
	RAT-U3-3021-TXS-HSA10CT003
U3 HSA10CT003	A SIDE SCR OUTLET TEMPERATURE TRANSMITTER 3
	RAT-U3-3021-TXS-HSD10CT001
U3 HSD10CT001	A SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE TRANSMITTER 1
	RAT-U3-3021-TXS-HSD10CT002
U3 HSD10CT002	A SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE TRANSMITTER 2
	RAT-U3-3021-TXS-HSD10CT003
U3 HSD10CT003	A SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE TRANSMITTER 3
	RAT-U3-3021-VLV
	U3 A SCR GAS PASS - VALVES
	RAT-U3-3021-VLV-HNA10AA301
U3 HNA10AA301	A SIDE SCR SYSTEM DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
	RAT-U3-3021-VLV-HNA10AA302
U3 HNA10AA302	A SIDE SCR LPA SCREEN DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
	RAT-U3-3021-VLV-HNA10AA303
U3 HNA10AA303	A SIDE SCR LPA SCREEN DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
	RAT-U3-3021-VLV-HNA10AA304
U3 HNA10AA304	A SIDE SCR FLUE GAS STATIC MIXER DIFFERENTIAL PRESSURE TEST PORT UPSTREAM ISOLATION VALVE
	RAT-U3-3021-VLV-HNA10AA305
U3 HNA10AA305	A SIDE SCR FLUE GAS STATIC MIXER DIFFERENTIAL PRESSURE TEST PORT DOWNSTREAM ISOLATION VALVE
	RAT-U3-3021-VLV-HNA10AA306
U3 HNA10AA306	A SIDE SCR FLUE GAS TEST PORT ISOLATION VALVE UPSTREAM OF AIG
	RAT-U3-3021-VLV-HNA10AA307
U3 HNA10AA307	A SIDE SCR FLUE GAS TEST PORT ISOLATION VALVE DOWNSTREAM OF AIG
	RAT-U3-3021-VLV-HSA10AA301
U3 HSA10AA301	A SIDE SCR SYSTEM DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
	RAT-U3-3021-VLV-HSD10AA301
U3 HSD10AA301	A SIDE SCR REACTOR GSG DIFFERENTIAL PRESSURE TEST PORT UPSTREAM ISOLATION VALVE
	RAT-U3-3021-VLV-HSD10AA302
U3 HSD10AA302	A SIDE SCR REACTOR GSG DIFFERENTIAL PRESSURE TEST PORT DOWNSTREAM ISOLATION VALVE
	RAT-U3-3022
	U3 B SCR GAS PASS INCLUDING GRIDS AND MIXER
	RAT-U3-3022-GRD
	U3 B SCR GAS PASS - GRIDS
	RAT-U3-3022-GRD-HSD20AX001

U3 HSD20AX001 B SIDE SCR REACTOR MEASUREMENT GRID 1
RAT-U3-3022-GRD-HSD20AX002
U3 HSD20AX002 B SIDE SCR FLUE GAS SAMPLING GRID
RAT-U3-3022-GSG
U3 B SCR GAS PASS - GRADUATED STRAIGHTENING GRID
RAT-U3-3022-GSG-HSD20AM001
U3 HSD20AM001 B SIDE SCR GRADUATED STRAIGHTENING GRID
RAT-U3-3022-JNT
U3 B SCR GAS PASS - EXPANSION JOINTS
RAT-U3-3022-JNT-HNA20BR001
U3 HNA20BR001 EXPANSION JOINT B SIDE INLET - EJ1B
RAT-U3-3022-JNT-HNA20BR003
U3 HNA20BR003 EXPANSION JOINT B SIDE INLET - EJ3B
RAT-U3-3022-JNT-HNA20BR004
U3 HNA20BR004 EXPANSION JOINT B SIDE INLET - EJ5B
RAT-U3-3022-JNT-HNA20BR005
U3 HNA20BR005 EXPANSION JOINT B SIDE BYPASS - EJ4B
RAT-U3-3022-JNT-HSA20BR001
U3 HSA20BR001 EXPANSION JOINT B SIDE OUTLET - EJ6B
RAT-U3-3022-MXR
U3 B SCR GAS PASS - STATIC MIXER
RAT-U3-3022-MXR-HNA20AM001
U3 HNA20AM001 B SIDE SCR FLUE GAS MIXER
RAT-U3-3022-RTD
U3 B SCR GAS PASS - RTD - TEMP MEASUREMENT
RAT-U3-3022-RTD-HNA20CT001
U3 HNA20CT001 B SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 1
RAT-U3-3022-RTD-HNA20CT002
U3 HNA20CT002 B SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 2
RAT-U3-3022-RTD-HNA20CT003
U3 HNA20CT003 B SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 3
RAT-U3-3022-RTD-HNA20CT004
U3 HNA20CT004 B SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 4
RAT-U3-3022-RTD-HNA20CT005
U3 HNA20CT005 B SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 5
RAT-U3-3022-RTD-HNA20CT006
U3 HNA20CT006 B SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 6
RAT-U3-3022-RTD-HNA20CT007
U3 HNA20CT007 B SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 7
RAT-U3-3022-RTD-HNA20CT008
U3 HNA20CT008 B SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 8
RAT-U3-3022-RTD-HNA20CT009
U3 HNA20CT009 B SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 9
RAT-U3-3022-RTD-HNA20CT010
U3 HNA20CT010 B SIDE SCR INLET TEMPERATURE MEASUREMENT ELEMENT 10
RAT-U3-3022-RTD-HSA20CT001
U3 HSA20CT001 B SIDE SCR OUTLET TEMPERATURE MEASUREMENT ELEMENT 1
RAT-U3-3022-RTD-HSA20CT002
U3 HSA20CT002 B SIDE SCR OUTLET TEMPERATURE MEASUREMENT ELEMENT 2
RAT-U3-3022-RTD-HSA20CT003
U3 HSA20CT003 B SIDE SCR OUTLET TEMPERATURE MEASUREMENT ELEMENT 3
RAT-U3-3022-RTD-HSD20CT001

U3 HSD20CT001 B SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE ELEMENT 1
RAT-U3-3022-RTD-HSD20CT002
U3 HSD20CT002 B SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE ELEMENT 2
RAT-U3-3022-RTD-HSD20CT003
U3 HSD20CT003 B SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE ELEMENT 3
RAT-U3-3022-SCN
U3 B SCR GAS PASS ASH SCREEN
RAT-U3-3022-SCN-HSP20AT001
U3 HSP20AT001 B SIDE SCR LARGE PARTICLE ASH SCREEN
RAT-U3-3022-TXS
U3 B SCR GAS PASS - TRANSMITTERS
RAT-U3-3022-TXS-HNA20CP001
U3 HNA20CP001 B SIDE SCR SYSTEM DIFFERENTIAL PRESSURE TRANSMITTER 1
RAT-U3-3022-TXS-HNA20CP002
U3 HNA20CP002 B SIDE SCR INLET LARGE PARTICLE ASH SCREEN DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3022-TXS-HNA20CT001
U3 HNA20CT001 B SIDE SCR INLET TEMPERATURE TRANSMITTER 1
RAT-U3-3022-TXS-HNA20CT002
U3 HNA20CT002 B SIDE SCR INLET TEMPERATURE TRANSMITTER 2
RAT-U3-3022-TXS-HNA20CT003
U3 HNA20CT003 B SIDE SCR INLET TEMPERATURE TRANSMITTER 3
RAT-U3-3022-TXS-HNA20CT004
U3 HNA20CT004 B SIDE SCR INLET TEMPERATURE TRANSMITTER 4
RAT-U3-3022-TXS-HNA20CT005
U3 HNA20CT005 B SIDE SCR INLET TEMPERATURE TRANSMITTER 5
RAT-U3-3022-TXS-HNA20CT006
U3 HNA20CT006 B SIDE SCR INLET TEMPERATURE TRANSMITTER 6
RAT-U3-3022-TXS-HNA20CT007
U3 HNA20CT007 B SIDE SCR INLET TEMPERATURE TRANSMITTER 7
RAT-U3-3022-TXS-HNA20CT008
U3 HNA20CT008 B SIDE SCR INLET TEMPERATURE TRANSMITTER 8
RAT-U3-3022-TXS-HNA20CT009
U3 HNA20CT009 B SIDE SCR INLET TEMPERATURE TRANSMITTER 9
RAT-U3-3022-TXS-HNA20CT010
U3 HNA20CT010 B SIDE SCR INLET TEMPERATURE TRANSMITTER 10
RAT-U3-3022-TXS-HSA20CT001
U3 HSA20CT001 B SIDE SCR OUTLET TEMPERATURE TRANSMITTER 1
RAT-U3-3022-TXS-HSA20CT002
U3 HSA20CT002 B SIDE SCR OUTLET TEMPERATURE TRANSMITTER 2
RAT-U3-3022-TXS-HSA20CT003
U3 HSA20CT003 B SIDE SCR OUTLET TEMPERATURE TRANSMITTER 3
RAT-U3-3022-TXS-HSD20CT001
U3 HSD20CT001 B SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE TRANSMITTER 1
RAT-U3-3022-TXS-HSD20CT002
U3 HSD20CT002 B SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE TRANSMITTER 2
RAT-U3-3022-TXS-HSD20CT003
U3 HSD20CT003 B SIDE PRIMARY ECONOMISER FLUE GAS INLET TEMPERATURE TRANSMITTER 3
RAT-U3-3022-VLV
U3 B SCR GAS PASS - VALVES
RAT-U3-3022-VLV-HNA20AA301
U3 HNA20AA301 B SIDE SCR SYSTEM DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3022-VLV-HNA20AA302

U3 HNA20AA302 B SIDE SCR LPA SCREEN DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3022-VLV-HNA20AA303
U3 HNA20AA303 B SIDE SCR LPA SCREEN DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3022-VLV-HNA20AA304
U3 HNA20AA304 B SIDE SCR FLUE GAS STATIC MIXER DIFFERENTIAL PRESSURE TEST PORT UPSTREAM ISOLATION VALVE
RAT-U3-3022-VLV-HNA20AA305
U3 HNA20AA305 B SIDE SCR FLUE GAS STATIC MIXER DIFFERENTIAL PRESSURE TEST PORT DOWNSTREAM ISOLATION VALVE
RAT-U3-3022-VLV-HNA20AA306
U3 HNA20AA306 B SIDE SCR FLUE GAS TEST PORT ISOLATION VALVE UPSTREAM OF AIG
RAT-U3-3022-VLV-HNA20AA307
U3 HNA20AA307 B SIDE SCR FLUE GAS TEST PORT ISOLATION VALVE DOWNSTREAM OF AIG
RAT-U3-3022-VLV-HSA20AA301
U3 HSA20AA301 B SIDE SCR SYSTEM DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3022-VLV-HSD20AA301
U3 HSD20AA301 B SIDE SCR REACTOR GSG DIFFERENTIAL PRESSURE TEST PORT UPSTREAM ISOLATION VALVE
RAT-U3-3022-VLV-HSD20AA302
U3 HSD20AA302 B SIDE SCR REACTOR GSG DIFFERENTIAL PRESSURE TEST PORT DOWNSTREAM ISOLATION VALVE
RAT-U3-3027
U3 SCR COMMON ASH HANDLING PLANT
RAT-U3-3027-HMI
U3 SCR ASH HANDLING PLANT CONTROL - HMI
RAT-U3-3027-HMI-HSP01GK001
U3 HSP01GK001 DRY ASH HANDLING LOCAL HMI
RAT-U3-3027-PNL
U3 SCR ASH HANDLING PLANT CONTROL - PANELS
RAT-U3-3027-PNL-HSP01GH001
U3 HSP01GH001 DRY ASH HANDLING CONTROL PANEL
RAT-U3-3028
U3 A SCR ASH HANDLING PLANT
RAT-U3-3028-APN
U3 A SCR ASH HANDLING PLANT - PNEUMATIC ACTUATORS
RAT-U3-3028-APN-HSP10AA010
U3 HSP10AA010 A SIDE SCR DRY ASH HOPPER 1 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3028-APN-HSP10AA020
U3 HSP10AA020 A SIDE SCR DRY ASH HOPPER 2 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3028-APN-HSP10AA030
U3 HSP10AA030 A SIDE SCR DRY ASH HOPPER 3 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3028-APN-HSP10AA040
U3 HSP10AA040 A SIDE SCR DRY ASH HOPPER 4 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3028-APN-HSP10AA050
U3 HSP10AA050 A SIDE SCR DRY ASH HOPPER 5 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3028-APN-HSP10AA060
U3 HSP10AA060 A SIDE SCR DRY ASH HOPPER 6 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3028-APN-HSP10AA070
U3 HSP10AA070 A SIDE SCR FINE ASH HOPPER 7 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3028-APN-HSP10AA080
U3 HSP10AA080 A SIDE SCR FINE ASH HOPPER 8 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3028-APN-HSP10AA090
U3 HSP10AA090 A SIDE SCR FINE ASH HOPPER 9 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3028-CNV

U3 A SCR ASH HANDLING PLANT - CONVEYORS
RAT-U3-3028-CNV-HSP10AF071
U3 HSP10AF071 A SIDE SCR FINE ASH SCREW CONVEYOR
RAT-U3-3028-FLT
U3 A SCR ASH HANDLING PLANT - FILTERS
RAT-U3-3028-FLT-QEB10AT001
U3 QEB10AT001 A SIDE SCR DRY ASH HOPPER 1 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3028-FLT-QEB10AT002
U3 QEB10AT002 A SIDE SCR DRY ASH HOPPER 2 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3028-FLT-QEB10AT003
U3 QEB10AT003 A SIDE SCR DRY ASH HOPPER 3 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3028-FLT-QEB10AT004
U3 QEB10AT004 A SIDE SCR DRY ASH HOPPER 4 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3028-FLT-QEB10AT005
U3 QEB10AT005 A SIDE SCR DRY ASH HOPPER 5 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3028-FLT-QEB10AT006
U3 QEB10AT006 A SIDE SCR DRY ASH HOPPER 6 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3028-FLT-QEB10AT007
U3 QEB10AT007 A SIDE SCR FINE ASH HOPPER 7 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3028-FLT-QEB10AT008
U3 QEB10AT008 A SIDE SCR FINE ASH HOPPER 8 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3028-FLT-QEB10AT009
U3 QEB10AT009 A SIDE SCR FINE ASH HOPPER 9 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3028-HOP
U3 A SCR ASH HANDLING PLANT - HOPPERS
RAT-U3-3028-HOP-HSP10AT010
U3 HSP10AT010 A SIDE SCR DRY ASH HOPPER 1
RAT-U3-3028-HOP-HSP10AT020
U3 HSP10AT020 A SIDE SCR DRY ASH HOPPER 2
RAT-U3-3028-HOP-HSP10AT030
U3 HSP10AT030 A SIDE SCR DRY ASH HOPPER 3
RAT-U3-3028-HOP-HSP10AT040
U3 HSP10AT040 A SIDE SCR DRY ASH HOPPER 4
RAT-U3-3028-HOP-HSP10AT050
U3 HSP10AT050 A SIDE SCR DRY ASH HOPPER 5
RAT-U3-3028-HOP-HSP10AT060
U3 HSP10AT060 A SIDE SCR DRY ASH HOPPER 6
RAT-U3-3028-HOP-HSP10AT070
U3 HSP10AT070 A SIDE SCR FINE ASH HOPPER 7
RAT-U3-3028-HOP-HSP10AT080
U3 HSP10AT080 A SIDE SCR FINE ASH HOPPER 8
RAT-U3-3028-HOP-HSP10AT090
U3 HSP10AT090 A SIDE SCR FINE ASH HOPPER 9
RAT-U3-3028-JNT
U3 A SCR ASH HANDLING PLANT - EXPANSION JOINTS
RAT-U3-3028-JNT-HSP10BR010
U3 HSP10BR010 A SIDE SCR DRY ASH HOPPER 1 EXPANSION JOINT
RAT-U3-3028-JNT-HSP10BR020
U3 HSP10BR020 A SIDE SCR DRY ASH HOPPER 2 EXPANSION JOINT
RAT-U3-3028-JNT-HSP10BR030
U3 HSP10BR030 A SIDE SCR DRY ASH HOPPER 3 EXPANSION JOINT
RAT-U3-3028-JNT-HSP10BR040

U3 HSP10BR040	A SIDE SCR DRY ASH HOPPER 4 EXPANSION JOINT
	RAT-U3-3028-JNT-HSP10BR050
U3 HSP10BR050	A SIDE SCR DRY ASH HOPPER 5 EXPANSION JOINT
	RAT-U3-3028-JNT-HSP10BR060
U3 HSP10BR060	A SIDE SCR DRY ASH HOPPER 6 EXPANSION JOINT
	RAT-U3-3028-JNT-HSP10BR070
U3 HSP10BR070	A SIDE SCR FINE ASH HOPPER 7 EXPANSION JOINT
	RAT-U3-3028-JNT-HSP10BR080
U3 HSP10BR080	A SIDE SCR FINE ASH HOPPER 8 EXPANSION JOINT
	RAT-U3-3028-JNT-HSP10BR090
U3 HSP10BR090	A SIDE SCR FINE ASH HOPPER 9 EXPANSION JOINT
	RAT-U3-3028-JNT-HSP10BR100
U3 HSP10BR100	A SIDE SCR FINE ASH SCREW CONVEYOR DOWNSTREAM EXPANSION JOINT
	RAT-U3-3028-LIS
U3 A SCR ASH HANDLING PLANT - LOCAL ISOLATING SWITCH	
	RAT-U3-3028-LIS-HSP10GS011
U3 HSP10GS011	A SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE MOTOR ISOLATOR
	RAT-U3-3028-LIS-HSP10GS021
U3 HSP10GS021	A SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE MOTOR ISOLATOR
	RAT-U3-3028-LIS-HSP10GS031
U3 HSP10GS031	A SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE MOTOR ISOLATOR
	RAT-U3-3028-LIS-HSP10GS041
U3 HSP10GS041	A SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE MOTOR ISOLATOR
	RAT-U3-3028-LIS-HSP10GS051
U3 HSP10GS051	A SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE MOTOR ISOLATOR
	RAT-U3-3028-LIS-HSP10GS061
U3 HSP10GS061	A SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE MOTOR ISOLATOR
	RAT-U3-3028-LIS-HSP10GS071
U3 HSP10GS071	A SIDE SCR FINE ASH SCREW CONVEYOR MOTOR ISOLATOR
	RAT-U3-3028-LVS
U3 A SCR ASH HANDLING PLANT - LEVEL SWITCHES	
	RAT-U3-3028-LVS-HSP10CL001
U3 HSP10CL001	A SIDE SCR DRY ASH HOPPER 1 HIGH HIGH LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL002
U3 HSP10CL002	A SIDE SCR DRY ASH HOPPER 2 HIGH HIGH LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL003
U3 HSP10CL003	A SIDE SCR DRY ASH HOPPER 3 HIGH HIGH LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL004
U3 HSP10CL004	A SIDE SCR DRY ASH HOPPER 4 HIGH HIGH LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL005
U3 HSP10CL005	A SIDE SCR DRY ASH HOPPER 5 HIGH HIGH LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL006
U3 HSP10CL006	A SIDE SCR DRY ASH HOPPER 6 HIGH HIGH LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL007
U3 HSP10CL007	A SIDE SCR FINE ASH HOPPER 7 HIGH HIGH LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL008
U3 HSP10CL008	A SIDE SCR FINE ASH HOPPER 7 LOW LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL009
U3 HSP10CL009	A SIDE SCR FINE ASH HOPPER 8 HIGH HIGH LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL010
U3 HSP10CL010	A SIDE SCR FINE ASH HOPPER 8 LOW LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL011

U3 HSP10CL011	A SIDE SCR FINE ASH HOPPER 9 HIGH HIGH LEVEL SWITCH
	RAT-U3-3028-LVS-HSP10CL012
U3 HSP10CL012	A SIDE SCR FINE ASH HOPPER 9 LOW LEVEL SWITCH
	RAT-U3-3028-MTR
	U3 A SCR ASH HANDLING PLANT - MOTORS
	RAT-U3-3028-MTR-HSP10AE011
U3 HSP10AE011	A SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE MOTOR
	RAT-U3-3028-MTR-HSP10AE021
U3 HSP10AE021	A SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE MOTOR
	RAT-U3-3028-MTR-HSP10AE031
U3 HSP10AE031	A SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE MOTOR
	RAT-U3-3028-MTR-HSP10AE041
U3 HSP10AE041	A SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE MOTOR
	RAT-U3-3028-MTR-HSP10AE051
U3 HSP10AE051	A SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE MOTOR
	RAT-U3-3028-MTR-HSP10AE061
U3 HSP10AE061	A SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE MOTOR
	RAT-U3-3028-MTR-HSP10AE071
U3 HSP10AE071	A SIDE SCR FINE ASH SCREW CONVEYOR MOTOR
	RAT-U3-3028-RES
	U3 A SCR ASH HANDLING PLANT - THERMISTORS
	RAT-U3-3028-RES-HSP10CT011
U3 HSP10CT011	A SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE MOTOR THERMISTOR
	RAT-U3-3028-RES-HSP10CT021
U3 HSP10CT021	A SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE MOTOR THERMISTOR
	RAT-U3-3028-RES-HSP10CT031
U3 HSP10CT031	A SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE MOTOR THERMISTOR
	RAT-U3-3028-RES-HSP10CT041
U3 HSP10CT041	A SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE MOTOR THERMISTOR
	RAT-U3-3028-RES-HSP10CT051
U3 HSP10CT051	A SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE MOTOR THERMISTOR
	RAT-U3-3028-RES-HSP10CT061
U3 HSP10CT061	A SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE MOTOR THERMISTOR
	RAT-U3-3028-RES-HSP10CT071
U3 HSP10CT071	A SIDE SCR FINE ASH SCREW CONVEYOR MOTOR THERMISTOR
	RAT-U3-3028-SEN
	U3 A SCR ASH HANDLING PLANT - SENSORS
	RAT-U3-3028-SEN-HSP10CG011
U3 HSP10CG011	A SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE ROTATION SENSOR
	RAT-U3-3028-SEN-HSP10CG021
U3 HSP10CG021	A SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE ROTATION SENSOR
	RAT-U3-3028-SEN-HSP10CG031
U3 HSP10CG031	A SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE ROTATION SENSOR
	RAT-U3-3028-SEN-HSP10CG041
U3 HSP10CG041	A SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE ROTATION SENSOR
	RAT-U3-3028-SEN-HSP10CG051
U3 HSP10CG051	A SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE ROTATION SENSOR
	RAT-U3-3028-SEN-HSP10CG061
U3 HSP10CG061	A SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE ROTATION SENSOR
	RAT-U3-3028-SEN-HSP10CG071
U3 HSP10CG071	A SIDE SCR FINE ASH SCREW CONVEYOR ROTATION SENSOR
	RAT-U3-3028-SOL

U3 A SCR ASH HANDLING PLANT - SOLENOIDS
RAT-U3-3028-SOL-HSP10AA010
U3 HSP10AA010 A SIDE SCR DRY ASH HOPPER 1 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3028-SOL-HSP10AA020
U3 HSP10AA020 A SIDE SCR DRY ASH HOPPER 2 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3028-SOL-HSP10AA030
U3 HSP10AA030 A SIDE SCR DRY ASH HOPPER 3 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3028-SOL-HSP10AA040
U3 HSP10AA040 A SIDE SCR DRY ASH HOPPER 4 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3028-SOL-HSP10AA050
U3 HSP10AA050 A SIDE SCR DRY ASH HOPPER 5 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3028-SOL-HSP10AA060
U3 HSP10AA060 A SIDE SCR DRY ASH HOPPER 6 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3028-SOL-HSP10AA070
U3 HSP10AA070 A SIDE SCR FINE ASH HOPPER 7 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3028-SOL-HSP10AA080
U3 HSP10AA080 A SIDE SCR FINE ASH HOPPER 8 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3028-SOL-HSP10AA090
U3 HSP10AA090 A SIDE SCR FINE ASH HOPPER 9 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3028-SWT
U3 A SCR ASH HANDLING PLANT - SWITCH
RAT-U3-3028-SWT-HSP10AE011
U3 HSP10AE011 A SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3028-SWT-HSP10AE021
U3 HSP10AE021 A SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3028-SWT-HSP10AE031
U3 HSP10AE031 A SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3028-SWT-HSP10AE041
U3 HSP10AE041 A SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3028-SWT-HSP10AE051
U3 HSP10AE051 A SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3028-SWT-HSP10AE061
U3 HSP10AE061 A SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3028-SWT-HSP10AE071
U3 HSP10AE071 A SIDE SCR FINE ASH SCREW CONVEYOR MOTOR CONTACTOR
RAT-U3-3028-SWX
U3 A SCR ASH HANDLING PLANT - AUXILIARY SWITCHES
RAT-U3-3028-SWX-HSP10CG010
U3 HSP10CG010 A SIDE SCR DRY ASH HOPPER 1 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3028-SWX-HSP10CG020
U3 HSP10CG020 A SIDE SCR DRY ASH HOPPER 2 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3028-SWX-HSP10CG030
U3 HSP10CG030 A SIDE SCR DRY ASH HOPPER 3 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3028-SWX-HSP10CG040
U3 HSP10CG040 A SIDE SCR DRY ASH HOPPER 4 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3028-SWX-HSP10CG050
U3 HSP10CG050 A SIDE SCR DRY ASH HOPPER 5 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3028-SWX-HSP10CG060
U3 HSP10CG060 A SIDE SCR DRY ASH HOPPER 6 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3028-SWX-HSP10CG070
U3 HSP10CG070 A SIDE SCR FINE ASH HOPPER 7 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3028-SWX-HSP10CG080

U3 HSP10CG080	A SIDE SCR FINE ASH HOPPER 8 OUTLET ISOLATING VALVE LIMIT SWITCH
	RAT-U3-3028-SWX-HSP10CG090
U3 HSP10CG090	A SIDE SCR FINE ASH HOPPER 9 OUTLET ISOLATING VALVE LIMIT SWITCH
	RAT-U3-3028-VLV
	U3 A SCR ASH HANDLING PLANT - VALVES
	RAT-U3-3028-VLV-HSP10AA010
U3 HSP10AA010	A SIDE SCR DRY ASH HOPPER 1 ISOLATION VALVE
	RAT-U3-3028-VLV-HSP10AA011
U3 HSP10AA011	A SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE
	RAT-U3-3028-VLV-HSP10AA012
U3 HSP10AA012	A SIDE SCR DRY ASH HOPPER 1 SPECTACLE BLIND
	RAT-U3-3028-VLV-HSP10AA020
U3 HSP10AA020	A SIDE SCR DRY ASH HOPPER 2 ISOLATION VALVE
	RAT-U3-3028-VLV-HSP10AA021
U3 HSP10AA021	A SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE
	RAT-U3-3028-VLV-HSP10AA022
U3 HSP10AA022	A SIDE SCR DRY ASH HOPPER 2 SPECTACLE BLIND
	RAT-U3-3028-VLV-HSP10AA030
U3 HSP10AA030	A SIDE SCR DRY ASH HOPPER 3 ISOLATION VALVE
	RAT-U3-3028-VLV-HSP10AA031
U3 HSP10AA031	A SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE
	RAT-U3-3028-VLV-HSP10AA032
U3 HSP10AA032	A SIDE SCR DRY ASH HOPPER 3 SPECTACLE BLIND
	RAT-U3-3028-VLV-HSP10AA040
U3 HSP10AA040	A SIDE SCR DRY ASH HOPPER 4 ISOLATION VALVE
	RAT-U3-3028-VLV-HSP10AA041
U3 HSP10AA041	A SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE
	RAT-U3-3028-VLV-HSP10AA042
U3 HSP10AA042	A SIDE SCR DRY ASH HOPPER 4 SPECTACLE BLIND
	RAT-U3-3028-VLV-HSP10AA050
U3 HSP10AA050	A SIDE SCR DRY ASH HOPPER 5 ISOLATION VALVE
	RAT-U3-3028-VLV-HSP10AA051
U3 HSP10AA051	A SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE
	RAT-U3-3028-VLV-HSP10AA052
U3 HSP10AA052	A SIDE SCR DRY ASH HOPPER 5 SPECTACLE BLIND
	RAT-U3-3028-VLV-HSP10AA060
U3 HSP10AA060	A SIDE SCR DRY ASH HOPPER 6 ISOLATION VALVE
	RAT-U3-3028-VLV-HSP10AA061
U3 HSP10AA061	A SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE
	RAT-U3-3028-VLV-HSP10AA062
U3 HSP10AA062	A SIDE SCR DRY ASH HOPPER 6 SPECTACLE BLIND
	RAT-U3-3028-VLV-HSP10AA070
U3 HSP10AA070	A SIDE SCR FINE ASH HOPPER 7 ISOLATION VALVE
	RAT-U3-3028-VLV-HSP10AA080
U3 HSP10AA080	A SIDE SCR FINE ASH HOPPER 8 ISOLATION VALVE
	RAT-U3-3028-VLV-HSP10AA090
U3 HSP10AA090	A SIDE SCR FINE ASH HOPPER 9 ISOLATION VALVE
	RAT-U3-3028-VLV-HSP10AA100
U3 HSP10AA100	A SIDE SCR FINE ASH SCREW CONVEYOR OUTLET SPECTACLE BLIND
	RAT-U3-3028-VLV-QEB10AA001
U3 QEB10AA001	A SIDE SCR ASH HANDLING SYSTEM INSTRUMENT AIR SUPPLY ISOLATION VALVE
	RAT-U3-3028-VLV-QEB10AA010

U3 QEB10AA010	A SIDE SCR DRY ASH HOPPER 1 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
	RAT-U3-3028-VLV-QEB10AA011
U3 QEB10AA011	A SIDE SCR DRY ASH HOPPER 1 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
	RAT-U3-3028-VLV-QEB10AA020
U3 QEB10AA020	A SIDE SCR DRY ASH HOPPER 2 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
	RAT-U3-3028-VLV-QEB10AA021
U3 QEB10AA021	A SIDE SCR DRY ASH HOPPER 2 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
	RAT-U3-3028-VLV-QEB10AA030
U3 QEB10AA030	A SIDE SCR DRY ASH HOPPER 3 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
	RAT-U3-3028-VLV-QEB10AA031
U3 QEB10AA031	A SIDE SCR DRY ASH HOPPER 3 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
	RAT-U3-3028-VLV-QEB10AA040
U3 QEB10AA040	A SIDE SCR DRY ASH HOPPER 4 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
	RAT-U3-3028-VLV-QEB10AA041
U3 QEB10AA041	A SIDE SCR DRY ASH HOPPER 4 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
	RAT-U3-3028-VLV-QEB10AA050
U3 QEB10AA050	A SIDE SCR DRY ASH HOPPER 5 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
	RAT-U3-3028-VLV-QEB10AA051
U3 QEB10AA051	A SIDE SCR DRY ASH HOPPER 5 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
	RAT-U3-3028-VLV-QEB10AA060
U3 QEB10AA060	A SIDE SCR DRY ASH HOPPER 6 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
	RAT-U3-3028-VLV-QEB10AA061
U3 QEB10AA061	A SIDE SCR DRY ASH HOPPER 6 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
	RAT-U3-3028-VLV-QEB10AA070
U3 QEB10AA070	A SIDE SCR FINE ASH HOPPER 7 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
	RAT-U3-3028-VLV-QEB10AA071
U3 QEB10AA071	A SIDE SCR FINE ASH HOPPER 7 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
	RAT-U3-3028-VLV-QEB10AA080
U3 QEB10AA080	A SIDE SCR FINE ASH HOPPER 8 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
	RAT-U3-3028-VLV-QEB10AA081
U3 QEB10AA081	A SIDE SCR FINE ASH HOPPER 8 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
	RAT-U3-3028-VLV-QEB10AA090
U3 QEB10AA090	A SIDE SCR FINE ASH HOPPER 9 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
	RAT-U3-3028-VLV-QEB10AA091
U3 QEB10AA091	A SIDE SCR FINE ASH HOPPER 9 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
	RAT-U3-3029
	U3 B SCR ASH HANDLING PLANT
	RAT-U3-3029-APN
	U3 B SCR ASH HANDLING PLANT - PNEUMATIC ACTUATORS
	RAT-U3-3029-APN-HSP20AA010
U3 HSP20AA010	B SIDE SCR DRY ASH HOPPER 1 OUTLET ISOLATION VALVE ACTUATOR
	RAT-U3-3029-APN-HSP20AA020
U3 HSP20AA020	B SIDE SCR DRY ASH HOPPER 2 OUTLET ISOLATION VALVE ACTUATOR
	RAT-U3-3029-APN-HSP20AA030
U3 HSP20AA030	B SIDE SCR DRY ASH HOPPER 3 OUTLET ISOLATION VALVE ACTUATOR
	RAT-U3-3029-APN-HSP20AA040
U3 HSP20AA040	B SIDE SCR DRY ASH HOPPER 4 OUTLET ISOLATION VALVE ACTUATOR
	RAT-U3-3029-APN-HSP20AA050
U3 HSP20AA050	B SIDE SCR DRY ASH HOPPER 5 OUTLET ISOLATION VALVE ACTUATOR
	RAT-U3-3029-APN-HSP20AA060
U3 HSP20AA060	B SIDE SCR DRY ASH HOPPER 6 OUTLET ISOLATION VALVE ACTUATOR

RAT-U3-3029-APN-HSP20AA070
U3 HSP20AA070 B SIDE SCR FINE ASH HOPPER 7 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3029-APN-HSP20AA080
U3 HSP20AA080 B SIDE SCR FINE ASH HOPPER 8 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3029-APN-HSP20AA090
U3 HSP20AA090 B SIDE SCR FINE ASH HOPPER 9 OUTLET ISOLATION VALVE ACTUATOR
RAT-U3-3029-CNV
U3 B SCR ASH HANDLING PLANT - CONVEYORS
RAT-U3-3029-CNV-HSP20AF071
U3 HSP20AF071 B SIDE SCR FINE ASH SCREW CONVEYOR
RAT-U3-3029-FLT
U3 B SCR ASH HANDLING PLANT - FILTERS
RAT-U3-3029-FLT-QEB20AT001
U3 QEB20AT001 B SIDE SCR DRY ASH HOPPER 1 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3029-FLT-QEB20AT002
U3 QEB20AT002 B SIDE SCR DRY ASH HOPPER 2 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3029-FLT-QEB20AT003
U3 QEB20AT003 B SIDE SCR DRY ASH HOPPER 3 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3029-FLT-QEB20AT004
U3 QEB20AT004 B SIDE SCR DRY ASH HOPPER 4 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3029-FLT-QEB20AT005
U3 QEB20AT005 B SIDE SCR DRY ASH HOPPER 5 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3029-FLT-QEB20AT006
U3 QEB20AT006 B SIDE SCR DRY ASH HOPPER 6 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3029-FLT-QEB20AT007
U3 QEB20AT007 B SIDE SCR FINE ASH HOPPER 7 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3029-FLT-QEB20AT008
U3 QEB20AT008 B SIDE SCR FINE ASH HOPPER 8 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3029-FLT-QEB20AT009
U3 QEB20AT009 B SIDE SCR FINE ASH HOPPER 9 ISOLATION VALVE AIR SUPPLY FILTER
RAT-U3-3029-HOP
U3 B SCR ASH HANDLING PLANT - HOPPERS
RAT-U3-3029-HOP-HSP20AT010
U3 HSP20AT010 B SIDE SCR DRY ASH HOPPER 1
RAT-U3-3029-HOP-HSP20AT020
U3 HSP20AT020 B SIDE SCR DRY ASH HOPPER 2
RAT-U3-3029-HOP-HSP20AT030
U3 HSP20AT030 B SIDE SCR DRY ASH HOPPER 3
RAT-U3-3029-HOP-HSP20AT040
U3 HSP20AT040 B SIDE SCR DRY ASH HOPPER 4
RAT-U3-3029-HOP-HSP20AT050
U3 HSP20AT050 B SIDE SCR DRY ASH HOPPER 5
RAT-U3-3029-HOP-HSP20AT060
U3 HSP20AT060 B SIDE SCR DRY ASH HOPPER 6
RAT-U3-3029-HOP-HSP20AT070
U3 HSP20AT070 B SIDE SCR FINE ASH HOPPER 7
RAT-U3-3029-HOP-HSP20AT080
U3 HSP20AT080 B SIDE SCR FINE ASH HOPPER 8
RAT-U3-3029-HOP-HSP20AT090
U3 HSP20AT090 B SIDE SCR FINE ASH HOPPER 9
RAT-U3-3029-JNT
U3 B SCR ASH HANDLING PLANT - EXPANSION JOINTS

RAT-U3-3029-JNT-HSP20BR010
U3 HSP20BR010 B SIDE SCR DRY ASH HOPPER 1 EXPANSION JOINT
RAT-U3-3029-JNT-HSP20BR020
U3 HSP20BR020 B SIDE SCR DRY ASH HOPPER 2 EXPANSION JOINT
RAT-U3-3029-JNT-HSP20BR030
U3 HSP20BR030 B SIDE SCR DRY ASH HOPPER 3 EXPANSION JOINT
RAT-U3-3029-JNT-HSP20BR040
U3 HSP20BR040 B SIDE SCR DRY ASH HOPPER 4 EXPANSION JOINT
RAT-U3-3029-JNT-HSP20BR050
U3 HSP20BR050 B SIDE SCR DRY ASH HOPPER 5 EXPANSION JOINT
RAT-U3-3029-JNT-HSP20BR060
U3 HSP20BR060 B SIDE SCR DRY ASH HOPPER 6 EXPANSION JOINT
RAT-U3-3029-JNT-HSP20BR070
U3 HSP20BR070 B SIDE SCR FINE ASH HOPPER 7 EXPANSION JOINT
RAT-U3-3029-JNT-HSP20BR080
U3 HSP20BR080 B SIDE SCR FINE ASH HOPPER 8 EXPANSION JOINT
RAT-U3-3029-JNT-HSP20BR090
U3 HSP20BR090 B SIDE SCR FINE ASH HOPPER 9 EXPANSION JOINT
RAT-U3-3029-JNT-HSP20BR100
U3 HSP20BR100 B SIDE SCR FINE ASH SCREW CONVEYOR DOWNSTREAM EXPANSION JOINT
RAT-U3-3029-LIS
U3 B SCR ASH HANDLING PLANT - LOCAL ISOLATING SWITCH
RAT-U3-3029-LIS-HSP20GS011
U3 HSP20GS011 B SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE MOTOR ISOLATOR
RAT-U3-3029-LIS-HSP20GS021
U3 HSP20GS021 B SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE MOTOR ISOLATOR
RAT-U3-3029-LIS-HSP20GS031
U3 HSP20GS031 B SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE MOTOR ISOLATOR
RAT-U3-3029-LIS-HSP20GS041
U3 HSP20GS041 B SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE MOTOR ISOLATOR
RAT-U3-3029-LIS-HSP20GS051
U3 HSP20GS051 B SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE MOTOR ISOLATOR
RAT-U3-3029-LIS-HSP20GS061
U3 HSP20GS061 B SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE MOTOR ISOLATOR
RAT-U3-3029-LIS-HSP20GS071
U3 HSP20GS071 B SIDE SCR FINE ASH SCREW CONVEYOR MOTOR ISOLATOR
RAT-U3-3029-LVS
U3 B SCR ASH HANDLING PLANT - LEVEL SWITCHES
RAT-U3-3029-LVS-HSP20CL001
U3 HSP20CL001 B SIDE SCR DRY ASH HOPPER 1 HIGH HIGH LEVEL SWITCH
RAT-U3-3029-LVS-HSP20CL002
U3 HSP20CL002 B SIDE SCR DRY ASH HOPPER 2 HIGH HIGH LEVEL SWITCH
RAT-U3-3029-LVS-HSP20CL003
U3 HSP20CL003 B SIDE SCR DRY ASH HOPPER 3 HIGH HIGH LEVEL SWITCH
RAT-U3-3029-LVS-HSP20CL004
U3 HSP20CL004 B SIDE SCR DRY ASH HOPPER 4 HIGH HIGH LEVEL SWITCH
RAT-U3-3029-LVS-HSP20CL005
U3 HSP20CL005 B SIDE SCR DRY ASH HOPPER 5 HIGH HIGH LEVEL SWITCH
RAT-U3-3029-LVS-HSP20CL006
U3 HSP20CL006 B SIDE SCR DRY ASH HOPPER 6 HIGH HIGH LEVEL SWITCH
RAT-U3-3029-LVS-HSP20CL007
U3 HSP20CL007 B SIDE SCR FINE ASH HOPPER 7 HIGH HIGH LEVEL SWITCH

RAT-U3-3029-LVS-HSP20CL008
U3 HSP20CL008 B SIDE SCR FINE ASH HOPPER 7 LOW LEVEL SWITCH
RAT-U3-3029-LVS-HSP20CL009
U3 HSP20CL009 B SIDE SCR FINE ASH HOPPER 8 HIGH HIGH LEVEL SWITCH
RAT-U3-3029-LVS-HSP20CL010
U3 HSP20CL010 B SIDE SCR FINE ASH HOPPER 8 LOW LEVEL SWITCH
RAT-U3-3029-LVS-HSP20CL011
U3 HSP20CL011 B SIDE SCR FINE ASH HOPPER 9 HIGH HIGH LEVEL SWITCH
RAT-U3-3029-LVS-HSP20CL012
U3 HSP20CL012 B SIDE SCR FINE ASH HOPPER 9 LOW LEVEL SWITCH
RAT-U3-3029-MTR
U3 B SCR ASH HANDLING PLANT - MOTORS
RAT-U3-3029-MTR-HSP20AE011
U3 HSP20AE011 B SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE MOTOR
RAT-U3-3029-MTR-HSP20AE021
U3 HSP20AE021 B SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE MOTOR
RAT-U3-3029-MTR-HSP20AE031
U3 HSP20AE031 B SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE MOTOR
RAT-U3-3029-MTR-HSP20AE041
U3 HSP20AE041 B SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE MOTOR
RAT-U3-3029-MTR-HSP20AE051
U3 HSP20AE051 B SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE MOTOR
RAT-U3-3029-MTR-HSP20AE061
U3 HSP20AE061 B SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE MOTOR
RAT-U3-3029-MTR-HSP20AE071
U3 HSP20AE071 B SIDE SCR FINE ASH SCREW CONVEYOR MOTOR
RAT-U3-3029-RES
U3 B SCR ASH HANDLING PLANT - THERMISTORS
RAT-U3-3029-RES-HSP20CT011
U3 HSP20CT011 B SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE MOTOR THERMISTOR
RAT-U3-3029-RES-HSP20CT021
U3 HSP20CT021 B SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE MOTOR THERMISTOR
RAT-U3-3029-RES-HSP20CT031
U3 HSP20CT031 B SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE MOTOR THERMISTOR
RAT-U3-3029-RES-HSP20CT041
U3 HSP20CT041 B SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE MOTOR THERMISTOR
RAT-U3-3029-RES-HSP20CT051
U3 HSP20CT051 B SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE MOTOR THERMISTOR
RAT-U3-3029-RES-HSP20CT061
U3 HSP20CT061 B SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE MOTOR THERMISTOR
RAT-U3-3029-RES-HSP20CT071
U3 HSP20CT071 B SIDE SCR FINE ASH SCREW CONVEYOR MOTOR THERMISTOR
RAT-U3-3029-SEN
U3 B SCR ASH HANDLING PLANT - SENSORS
RAT-U3-3029-SEN-HSP20CG011
U3 HSP20CG011 B SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE ROTATION SENSOR
RAT-U3-3029-SEN-HSP20CG021
U3 HSP20CG021 B SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE ROTATION SENSOR
RAT-U3-3029-SEN-HSP20CG031
U3 HSP20CG031 B SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE ROTATION SENSOR
RAT-U3-3029-SEN-HSP20CG041
U3 HSP20CG041 B SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE ROTATION SENSOR

RAT-U3-3029-SEN-HSP20CG051
U3 HSP20CG051 B SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE ROTATION SENSOR
RAT-U3-3029-SEN-HSP20CG061
U3 HSP20CG061 B SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE ROTATION SENSOR
RAT-U3-3029-SEN-HSP20CG071
U3 HSP20CG071 B SIDE SCR FINE ASH SCREW CONVEYOR ROTATION SENSOR
RAT-U3-3029-SOL
U3 B SCR ASH HANDLING PLANT - SOLENOIDS
RAT-U3-3029-SOL-HSP20AA010
U3 HSP20AA010 B SIDE SCR DRY ASH HOPPER 1 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3029-SOL-HSP20AA020
U3 HSP20AA020 B SIDE SCR DRY ASH HOPPER 2 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3029-SOL-HSP20AA030
U3 HSP20AA030 B SIDE SCR DRY ASH HOPPER 3 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3029-SOL-HSP20AA040
U3 HSP20AA040 B SIDE SCR DRY ASH HOPPER 4 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3029-SOL-HSP20AA050
U3 HSP20AA050 B SIDE SCR DRY ASH HOPPER 5 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3029-SOL-HSP20AA060
U3 HSP20AA060 B SIDE SCR DRY ASH HOPPER 6 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3029-SOL-HSP20AA070
U3 HSP20AA070 B SIDE SCR FINE ASH HOPPER 7 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3029-SOL-HSP20AA080
U3 HSP20AA080 B SIDE SCR FINE ASH HOPPER 8 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3029-SOL-HSP20AA090
U3 HSP20AA090 B SIDE SCR FINE ASH HOPPER 9 OUTLET ISOLATION VALVE ACTUATOR SOLENOID VALVE
RAT-U3-3029-SWT
U3 B SCR ASH HANDLING PLANT - SWITCH
RAT-U3-3029-SWT-HSP20AE011
U3 HSP20AE011 B SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3029-SWT-HSP20AE021
U3 HSP20AE021 B SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3029-SWT-HSP20AE031
U3 HSP20AE031 B SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3029-SWT-HSP20AE041
U3 HSP20AE041 B SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3029-SWT-HSP20AE051
U3 HSP20AE051 B SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3029-SWT-HSP20AE061
U3 HSP20AE061 B SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE MOTOR CONTACTOR
RAT-U3-3029-SWT-HSP20AE071
U3 HSP20AE071 B SIDE SCR FINE ASH SCREW CONVEYOR MOTOR CONTACTOR
RAT-U3-3029-SWX
U3 B SCR ASH HANDLING PLANT - AUXILIARY SWITCHES
RAT-U3-3029-SWX-HSP20CG010
U3 HSP20CG010 B SIDE SCR DRY ASH HOPPER 1 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3029-SWX-HSP20CG020
U3 HSP20CG020 B SIDE SCR DRY ASH HOPPER 2 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3029-SWX-HSP20CG030
U3 HSP20CG030 B SIDE SCR DRY ASH HOPPER 3 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3029-SWX-HSP20CG040
U3 HSP20CG040 B SIDE SCR DRY ASH HOPPER 4 OUTLET ISOLATING VALVE LIMIT SWITCH

RAT-U3-3029-SWX-HSP20CG050
U3 HSP20CG050 B SIDE SCR DRY ASH HOPPER 5 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3029-SWX-HSP20CG060
U3 HSP20CG060 B SIDE SCR DRY ASH HOPPER 6 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3029-SWX-HSP20CG070
U3 HSP20CG070 B SIDE SCR FINE ASH HOPPER 7 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3029-SWX-HSP20CG080
U3 HSP20CG080 B SIDE SCR FINE ASH HOPPER 8 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3029-SWX-HSP20CG090
U3 HSP20CG090 B SIDE SCR FINE ASH HOPPER 9 OUTLET ISOLATING VALVE LIMIT SWITCH
RAT-U3-3029-VLV
U3 B SCR ASH HANDLING PLANT - VALVES
RAT-U3-3029-VLV-HSP20AA010
U3 HSP20AA010 B SIDE SCR DRY ASH HOPPER 1 ISOLATION VALVE
RAT-U3-3029-VLV-HSP20AA011
U3 HSP20AA011 B SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE
RAT-U3-3029-VLV-HSP20AA012
U3 HSP20AA012 B SIDE SCR DRY ASH HOPPER 1 ROTARY VALVE OUTLET SPECTACLE BLIND
RAT-U3-3029-VLV-HSP20AA020
U3 HSP20AA020 B SIDE SCR DRY ASH HOPPER 2 ISOLATION VALVE
RAT-U3-3029-VLV-HSP20AA021
U3 HSP20AA021 B SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE
RAT-U3-3029-VLV-HSP20AA022
U3 HSP20AA022 B SIDE SCR DRY ASH HOPPER 2 ROTARY VALVE OUTLET SPECTACLE BLIND
RAT-U3-3029-VLV-HSP20AA030
U3 HSP20AA030 B SIDE SCR DRY ASH HOPPER 3 ISOLATION VALVE
RAT-U3-3029-VLV-HSP20AA031
U3 HSP20AA031 B SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE
RAT-U3-3029-VLV-HSP20AA032
U3 HSP20AA032 B SIDE SCR DRY ASH HOPPER 3 ROTARY VALVE OUTLET SPECTACLE BLIND
RAT-U3-3029-VLV-HSP20AA040
U3 HSP20AA040 B SIDE SCR DRY ASH HOPPER 4 ISOLATION VALVE
RAT-U3-3029-VLV-HSP20AA041
U3 HSP20AA041 B SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE
RAT-U3-3029-VLV-HSP20AA042
U3 HSP20AA042 B SIDE SCR DRY ASH HOPPER 4 ROTARY VALVE OUTLET SPECTACLE BLIND
RAT-U3-3029-VLV-HSP20AA050
U3 HSP20AA050 B SIDE SCR DRY ASH HOPPER 5 ISOLATION VALVE
RAT-U3-3029-VLV-HSP20AA051
U3 HSP20AA051 B SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE
RAT-U3-3029-VLV-HSP20AA052
U3 HSP20AA052 B SIDE SCR DRY ASH HOPPER 5 ROTARY VALVE OUTLET SPECTACLE BLIND
RAT-U3-3029-VLV-HSP20AA060
U3 HSP20AA060 B SIDE SCR DRY ASH HOPPER 6 ISOLATION VALVE
RAT-U3-3029-VLV-HSP20AA061
U3 HSP20AA061 B SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE
RAT-U3-3029-VLV-HSP20AA062
U3 HSP20AA062 B SIDE SCR DRY ASH HOPPER 6 ROTARY VALVE OUTLET SPECTACLE BLIND
RAT-U3-3029-VLV-HSP20AA070
U3 HSP20AA070 B SIDE SCR FINE ASH HOPPER 7 ISOLATION VALVE
RAT-U3-3029-VLV-HSP20AA080
U3 HSP20AA080 B SIDE SCR FINE ASH HOPPER 8 ISOLATION VALVE

RAT-U3-3029-VLV-HSP20AA090
U3 HSP20AA090 B SIDE SCR FINE ASH HOPPER 9 ISOLATION VALVE
RAT-U3-3029-VLV-HSP20AA100
U3 HSP20AA100 B SIDE SCR FINE ASH SCREW CONVEYOR OUTLET SPECTACLE BLIND
RAT-U3-3029-VLV-QEB20AA001
U3 QEB20AA001 B SIDE SCR ASH HANDLING SYSTEM INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3029-VLV-QEB20AA010
U3 QEB20AA010 B SIDE SCR DRY ASH HOPPER 1 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
RAT-U3-3029-VLV-QEB20AA011
U3 QEB20AA011 B SIDE SCR DRY ASH HOPPER 1 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
RAT-U3-3029-VLV-QEB20AA020
U3 QEB20AA020 B SIDE SCR DRY ASH HOPPER 2 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
RAT-U3-3029-VLV-QEB20AA021
U3 QEB20AA021 B SIDE SCR DRY ASH HOPPER 2 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
RAT-U3-3029-VLV-QEB20AA030
U3 QEB20AA030 B SIDE SCR DRY ASH HOPPER 3 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
RAT-U3-3029-VLV-QEB20AA031
U3 QEB20AA031 B SIDE SCR DRY ASH HOPPER 3 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
RAT-U3-3029-VLV-QEB20AA040
U3 QEB20AA040 B SIDE SCR DRY ASH HOPPER 4 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
RAT-U3-3029-VLV-QEB20AA041
U3 QEB20AA041 B SIDE SCR DRY ASH HOPPER 4 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
RAT-U3-3029-VLV-QEB20AA050
U3 QEB20AA050 B SIDE SCR DRY ASH HOPPER 5 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
RAT-U3-3029-VLV-QEB20AA051
U3 QEB20AA051 B SIDE SCR DRY ASH HOPPER 5 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
RAT-U3-3029-VLV-QEB20AA060
U3 QEB20AA060 B SIDE SCR DRY ASH HOPPER 6 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
RAT-U3-3029-VLV-QEB20AA061
U3 QEB20AA061 B SIDE SCR DRY ASH HOPPER 6 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
RAT-U3-3029-VLV-QEB20AA070
U3 QEB20AA070 B SIDE SCR FINE ASH HOPPER 7 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
RAT-U3-3029-VLV-QEB20AA071
U3 QEB20AA071 B SIDE SCR FINE ASH HOPPER 7 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
RAT-U3-3029-VLV-QEB20AA080
U3 QEB20AA080 B SIDE SCR FINE ASH HOPPER 8 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
RAT-U3-3029-VLV-QEB20AA081
U3 QEB20AA081 B SIDE SCR FINE ASH HOPPER 8 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
RAT-U3-3029-VLV-QEB20AA090
U3 QEB20AA090 B SIDE SCR FINE ASH HOPPER 9 ISOLATION VALVE CONTROL AIR SUPPLY ISOLATION VALVE
RAT-U3-3029-VLV-QEB20AA091
U3 QEB20AA091 B SIDE SCR FINE ASH HOPPER 9 ISOLATION VALVE CONTROL AIR PRESSURE REGULATOR VALVE
RAT-U3-303
U3 SCR AMMONIA INJECTION SYSTEM
RAT-U3-3030
U3 SCR COMMON AMMONIA FLOW CONTROL
RAT-U3-3031
U3 A SCR AMMONIA FLOW CONTROL SKID
RAT-U3-3031-APN
U3 A SCR AMMONIA FLOW CONTROL SKID - PNEUMATIC ACTUATORS
RAT-U3-3031-APN-HSJ10AA004

U3 HSJ10AA004	A SIDE SCR AMMONIA FLOW CONTROL UNIT PNEUMATIC SHUTOFF VALVE 1 ACTUATOR
	RAT-U3-3031-APN-HSJ10AA010
U3 HSJ10AA010	A SIDE SCR AMMONIA FLOW CONTROL UNIT PNEUMATIC SHUTOFF VALVE 2 ACTUATOR
	RAT-U3-3031-APN-HSJ10AA201
U3 HSJ10AA201	A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 PNEUMATIC FLOW CONTROL VALVE ACTUATOR
	RAT-U3-3031-APN-HSJ10AA202
U3 HSJ10AA202	A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 PNEUMATIC FLOW CONTROL VALVE ACTUATOR
	RAT-U3-3031-HTR
	U3 A SCR AMMONIA FLOW CONTROL SKID - HEATER
	RAT-U3-3031-HTR-HSJ10AH001
U3 HSJ10AH001	AFCU SKID 1A SUP PIPE 1 TRACE HEATING
	RAT-U3-3031-HTR-HSJ10AH002
U3 HSJ10AH002	AFCU SKID 1A SUP PIPE 2 TRACE HEATING
	RAT-U3-3031-HTR-HSJ10AH003
U3 HSJ10AH003	AFCU SKID 1A TRACE HEATING 1
	RAT-U3-3031-HTR-HSJ10AH004
U3 HSJ10AH004	AFCU SKID 1A TRACE HEATING 2
	RAT-U3-3031-PGS
	U3 A SCR AMMONIA FLOW CONTROL SKID - PRESSURE GAUGES
	RAT-U3-3031-PGS-QEB10CP001
U3 QEB10CP001	A SIDE SCR AFCU STREAM 1 INSTRUMENT AIR SUPPLY PRESSURE GAUGE
	RAT-U3-3031-RTD
	U3 SCR A AMMONIA FLOW CONTROL SKID - RTD - TEMP MEASUREMENT
	RAT-U3-3031-RTD-HSJ10CT001
U3 HSJ10CT001	AFCU SKID A TRACE HEATING 1 RTD
	RAT-U3-3031-RTD-HSJ10CT002
U3 HSJ10CT002	AFCU SKID A TRACE HEATING 2 RTD
	RAT-U3-3031-RTD-HSJ10CT003
U3 HSJ10CT003	AFCU SKID A SUPPLY PIPE 1 TRACE HEATING RTD
	RAT-U3-3031-RTD-HSJ10CT004
U3 HSJ10CT004	AFCU SKID A SUPPLY PIPE 2 TRACE HEATING RTD
	RAT-U3-3031-SOL
	U3 A SCR AMMONIA FLOW CONTROL SKID - SOLENOIDS
	RAT-U3-3031-SOL-HSJ10AA004
U3 HSJ10AA004	A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 PNEUMATIC SHUTOFF VALVE SOLENOID
	RAT-U3-3031-SOL-HSJ10AA010
U3 HSJ10AA010	A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 PNEUMATIC SHUTOFF VALVE SOLENOID
	RAT-U3-3031-SWT
	U3 A SCR AMMONIA FLOW CONTROL SKID - SWITCH
	RAT-U3-3031-SWT-HSJ10AH001
U3 HSJ10AH001	AFCU SKID 1A SUPPLY PIPE 1 TRACE HEATING ISOLATOR AT GSM-H3
	RAT-U3-3031-SWT-HSJ10AH002
U3 HSJ10AH002	AFCU SKID 1A SUPPLY PIPE 2 TRACE HEATING ISOLATOR AT GSM-H3
	RAT-U3-3031-SWT-HSJ10AH003
U3 HSJ10AH003	AFCU SKID 1A TRACE HEATING 1 ISOLATOR AT GSM-H3
	RAT-U3-3031-SWT-HSJ10AH004
U3 HSJ10AH004	AFCU SKID 1A TRACE HEATING 2 ISOLATOR AT GSM-H3
	RAT-U3-3031-SWX
	U3 A SCR AMMONIA FLOW CONTROL SKID - AUXILIARY SWITCHES
	RAT-U3-3031-SWX-HSJ10CG004
U3 HSJ10CG004	A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 PNEUMATIC SHUTOFF VALVE LIMIT SWITCH

RAT-U3-3031-SWX-HSJ10CG010
U3 HSJ10CG010 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 PNEUMATIC SHUTOFF VALVE LIMIT SWITCH
RAT-U3-3031-SWX-QEB10CG146
U3 QEB10CG146 A SIDE SCR AFCU STREAM 1 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 1 LIMIT SWITCH
RAT-U3-3031-SWX-QEB10CG147
U3 QEB10CG147 A SIDE SCR AFCU STREAM 1 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 2 LIMIT SWITCH
RAT-U3-3031-SWX-QEB10CG150
U3 QEB10CG150 A SIDE SCR AFCU STREAM 2 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 1 LIMIT SWITCH
RAT-U3-3031-SWX-QEB10CG151
U3 QEB10CG151 A SIDE SCR AFCU STREAM 2 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 2 LIMIT SWITCH
RAT-U3-3031-TXS
U3 A SCR AMMONIA FLOW CONTROL SKID - TRANSMITTERS
RAT-U3-3031-TXS-HSJ10CF001
U3 HSJ10CF001 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW TRANSMITTER
RAT-U3-3031-TXS-HSJ10CF002
U3 HSJ10CF002 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW TRANSMITTER
RAT-U3-3031-TXS-HSJ10CF201
U3 HSJ10CF201 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW TRANSMITTER RELAY
RAT-U3-3031-TXS-HSJ10CF202
U3 HSJ10CF202 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW TRANSMITTER RELAY
RAT-U3-3031-TXS-HSJ10CG201
U3 HSJ10CG201 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW TRANSMITTER POSITION TRANSMITTER
RAT-U3-3031-TXS-HSJ10CG202
U3 HSJ10CG202 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW TRANSMITTER POSITION TRANSMITTER
RAT-U3-3031-TXS-HSJ10CP001
U3 HSJ10CP001 A SIDE SCR AFCU STREAM 1 PRESSURE INDICATOR TRANSMITTER
RAT-U3-3031-TXS-HSJ10CP005
U3 HSJ10CP005 A SIDE SCR AFCU STREAM 2 PRESSURE INDICATOR TRANSMITTER
RAT-U3-3031-VLV
U3 A SCR AMMONIA FLOW CONTROL SKID - VALVES
RAT-U3-3031-VLV-HSJ10AA004
U3 HSJ10AA004 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 PNEUMATIC SHUTOFF VALVE
RAT-U3-3031-VLV-HSJ10AA010
U3 HSJ10AA010 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 PNEUMATIC SHUTOFF VALVE
RAT-U3-3031-VLV-HSJ10AA073
U3 HSJ10AA073 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW CONTROL VALVE INLET ISOLATION VALVE 1
RAT-U3-3031-VLV-HSJ10AA074
U3 HSJ10AA074 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW CONTROL VALVE INLET ISOLATION VALVE 2
RAT-U3-3031-VLV-HSJ10AA075
U3 HSJ10AA075 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW CONTROL VALVE OUTLET ISOLATION VALVE 1
RAT-U3-3031-VLV-HSJ10AA076
U3 HSJ10AA076 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW CONTROL VALVE OUTLET ISOLATION VALVE 2
RAT-U3-3031-VLV-HSJ10AA077
U3 HSJ10AA077 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW CONTROL VALVE INLET ISOLATION VALVE 1
RAT-U3-3031-VLV-HSJ10AA078
U3 HSJ10AA078 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW CONTROL VALVE INLET ISOLATION VALVE 2

RAT-U3-3031-VLV-HSJ10AA079
U3 HSJ10AA079 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW CONTROL VALVE OUTLET ISOLATION VALVE 1
RAT-U3-3031-VLV-HSJ10AA080
U3 HSJ10AA080 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW CONTROL VALVE OUTLET ISOLATION VALVE 2
RAT-U3-3031-VLV-HSJ10AA110
U3 HSJ10AA110 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 CHECK VALVE
RAT-U3-3031-VLV-HSJ10AA111
U3 HSJ10AA111 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 CHECK VALVE
RAT-U3-3031-VLV-HSJ10AA201
U3 HSJ10AA201 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 PNEUMATIC FLOW CONTROL VALVE
RAT-U3-3031-VLV-HSJ10AA202
U3 HSJ10AA202 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 PNEUMATIC FLOW CONTROL VALVE
RAT-U3-3031-VLV-HSJ10AA301
U3 HSJ10AA301 PRESSURE INDICATOR TRANSMITTER ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA305
U3 HSJ10AA305 PRESSURE INDICATOR TRANSMITTER ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA505
U3 HSJ10AA505 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA506
U3 HSJ10AA506 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA507
U3 HSJ10AA507 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA508
U3 HSJ10AA508 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA509
U3 HSJ10AA509 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA510
U3 HSJ10AA510 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA511
U3 HSJ10AA511 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA512
U3 HSJ10AA512 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA513
U3 HSJ10AA513 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA514
U3 HSJ10AA514 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA515
U3 HSJ10AA515 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA516
U3 HSJ10AA516 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA517
U3 HSJ10AA517 AFCU SKID BLEED/VENT TO DILUTION AIR SYSTEM - ISOLATION VALVE
RAT-U3-3031-VLV-HSJ10AA518
U3 HSJ10AA518 AFCU SKID BLEED/VENT TO DILUTION AIR SYSTEM - ISOLATION VALVE
RAT-U3-3031-VLV-HSJ10AA651
U3 HSJ10AA651 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 SAMPLE POINT ISOLATION VALVE
RAT-U3-3031-VLV-HSJ10AA652
U3 HSJ10AA652 A SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 SAMPLE POINT ISOLATION VALVE
RAT-U3-3031-VLV-HSJ10AA801
U3 HSJ10AA801 A SIDE SCR AFCU / AMMONIA TRANSFER PIPE PURGE/VENT HOSE CONNECTION ISOLATION VALVE 1
RAT-U3-3031-VLV-HSJ10AA802

U3 HSJ10AA802 A SIDE SCR AFCU / AMMONIA TRANSFER PIPE PURGE/VENT HOSE CONNECTION ISOLATION VALVE 2
RAT-U3-3031-VLV-HSJ10AA805
U3 HSJ10AA805 NITROGEN PURGE CONNECTION ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA806
U3 HSJ10AA806 NITROGEN PURGE CONNECTION ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA807
U3 HSJ10AA807 NITROGEN PURGE CONNECTION ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-HSJ10AA808
U3 HSJ10AA808 NITROGEN PURGE CONNECTION ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-QEB10AA005
U3 QEB10AA005 INSTRUMENT AIR MANIFOLD ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-QEB10AA006
U3 QEB10AA006 INSTRUMENT AIR TO HSJ10AA010 & HSJ10AA202 ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-QEB10AA007
U3 QEB10AA007 INSTRUMENT AIR TO HSJ10AA004 & HSJ10AA201 ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-QEB10AA008
U3 QEB10AA008 INSTRUMENT AIR SPARE ISOLATION - MANUAL BALL VALVE
RAT-U3-3031-VLV-QEB10AA146
U3 QEB10AA146 A SIDE SCR AFCU STREAM 1 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 1
RAT-U3-3031-VLV-QEB10AA147
U3 QEB10AA147 A SIDE SCR AFCU STREAM 1 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 2
RAT-U3-3031-VLV-QEB10AA150
U3 QEB10AA150 A SIDE SCR AFCU STREAM 2 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 1
RAT-U3-3031-VLV-QEB10AA151
U3 QEB10AA151 A SIDE SCR AFCU STREAM 2 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 2
RAT-U3-3031-VLV-QEB10AA152
U3 QEB10AA152 A SIDE SCR AFCU SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3031-VLV-QEB10AA301
U3 QEB10AA301 INSTRUMENT AIR PRESSURE INDICATOR ISOLATION - MANUAL BALL VALVE
RAT-U3-3032
U3 B SCR AMMONIA FLOW CONTROL SKID
RAT-U3-3032-APN
U3 B SCR AMMONIA FLOW CONTROL SKID - PNEUMATIC ACTUATORS
RAT-U3-3032-APN-HSJ20AA004
U3 HSJ20AA004 B SIDE SCR AMMONIA FLOW CONTROL UNIT PNEUMATIC SHUTOFF VALVE 1 ACTUATOR
RAT-U3-3032-APN-HSJ20AA010
U3 HSJ20AA010 B SIDE SCR AMMONIA FLOW CONTROL UNIT PNEUMATIC SHUTOFF VALVE 2 ACTUATOR
RAT-U3-3032-APN-HSJ20AA201
U3 HSJ20AA201 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 PNEUMATIC FLOW CONTROL VALVE ACTUATOR
RAT-U3-3032-APN-HSJ20AA202
U3 HSJ20AA202 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 PNEUMATIC FLOW CONTROL VALVE ACTUATOR
RAT-U3-3032-HTR
U3 B SCR AMMONIA FLOW CONTROL SKID - HEATER
RAT-U3-3032-HTR-HSJ20AH001
U3 HSJ20AH001 AFCU SKID 1B SUP PIPE 1 TRACE HEATING
RAT-U3-3032-HTR-HSJ20AH002
U3 HSJ20AH002 AFCU SKID 1B SUP PIPE 2 TRACE HEATING
RAT-U3-3032-HTR-HSJ20AH003
U3 HSJ20AH003 AFCU SKID 1B TRACE HEATING 1
RAT-U3-3032-HTR-HSJ20AH004
U3 HSJ20AH004 AFCU SKID 1B TRACE HEATING 2

RAT-U3-3032-PGS
U3 B SCR AMMONIA FLOW CONTROL SKID - PRESSURE GAUGES
RAT-U3-3032-PGS-QEB20CP001
U3 QEB20CP001 B SIDE SCR AFCU STREAM 1 INSTRUMENT AIR SUPPLY PRESSURE GAUGE
RAT-U3-3032-RTD
U3 SCR B AMMONIA FLOW CONTROL SKID - RTD - TEMP MEASUREMENT
RAT-U3-3032-RTD-HSJ20CT001
U3 HSJ20CT001 AFCU SKID B TRACE HEATING 1 RTD
RAT-U3-3032-RTD-HSJ20CT002
U3 HSJ20CT002 AFCU SKID B TRACE HEATING 2 RTD
RAT-U3-3032-RTD-HSJ20CT003
U3 HSJ20CT003 AFCU SKID B SUPPLY PIPE 1 TRACE HEATING RTD
RAT-U3-3032-RTD-HSJ20CT004
U3 HSJ20CT004 AFCU SKID B SUPPLY PIPE 2 TRACE HEATING RTD
RAT-U3-3032-SOL
U3 B SCR AMMONIA FLOW CONTROL SKID - SOLENOIDS
RAT-U3-3032-SOL-HSJ20AA004
U3 HSJ20AA004 B SIDE SCR AMMONIA FLOW CONTROL UNIT PNEUMATIC SHUTOFF VALVE 1 SOLENOID
RAT-U3-3032-SOL-HSJ20AA010
U3 HSJ20AA010 B SIDE SCR AMMONIA FLOW CONTROL UNIT PNEUMATIC SHUTOFF VALVE 2 SOLENOID
RAT-U3-3032-SWT
U3 B SCR AMMONIA FLOW CONTROL SKID - SWITCH
RAT-U3-3032-SWT-HSJ20AH001
U3 HSJ20AH001 AFCU SKID 1B SUPPLY PIPE 1 TRACE HEATING ISOLATOR AT GSM-H3
RAT-U3-3032-SWT-HSJ20AH002
U3 HSJ20AH002 AFCU SKID 1B SUPPLY PIPE 2 TRACE HEATING ISOLATOR AT GSM-H3
RAT-U3-3032-SWT-HSJ20AH003
U3 HSJ20AH003 AFCU SKID 1B TRACE HEATING 1 ISOLATOR AT GSM-H3
RAT-U3-3032-SWT-HSJ20AH004
U3 HSJ20AH004 AFCU SKID 1B TRACE HEATING 2 ISOLATOR AT GSM-H3
RAT-U3-3032-SWX
U3 B SCR AMMONIA FLOW CONTROL SKID - AUXILIARY SWITCHES
RAT-U3-3032-SWX-HSJ20CG004
U3 HSJ20CG004 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 PNEUMATIC SHUTOFF VALVE LIMIT SWITCH
RAT-U3-3032-SWX-HSJ20CG010
U3 HSJ20CG010 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 PNEUMATIC SHUTOFF VALVE LIMIT SWITCH
RAT-U3-3032-SWX-QEB20CG146
U3 QEB20CG146 B SIDE SCR AFCU STREAM 1 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 1 LIMIT SWITCH
RAT-U3-3032-SWX-QEB20CG147
U3 QEB20CG147 B SIDE SCR AFCU STREAM 1 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 2 LIMIT SWITCH
RAT-U3-3032-SWX-QEB20CG150
U3 QEB20CG150 B SIDE SCR AFCU STREAM 2 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 1 LIMIT SWITCH
RAT-U3-3032-SWX-QEB20CG151
U3 QEB20CG151 B SIDE SCR AFCU STREAM 2 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 2 LIMIT SWITCH
RAT-U3-3032-TXS
U3 B SCR AMMONIA FLOW CONTROL SKID - TRANSMITTERS
RAT-U3-3032-TXS-HSJ20CF001
U3 HSJ20CF001 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW TRANSMITTER
RAT-U3-3032-TXS-HSJ20CF002
U3 HSJ20CF002 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW TRANSMITTER

RAT-U3-3032-TXS-HSJ20CF201
U3 HSJ20CF201 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW TRANSMITTER RELAY
RAT-U3-3032-TXS-HSJ20CF202
U3 HSJ20CF202 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW TRANSMITTER RELAY
RAT-U3-3032-TXS-HSJ20CG201
U3 HSJ20CG201 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW TRANSMITTER POSITION TRANSMITTER
RAT-U3-3032-TXS-HSJ20CG202
U3 HSJ20CG202 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW TRANSMITTER POSITION TRANSMITTER
RAT-U3-3032-TXS-HSJ20CP001
U3 HSJ20CP001 B SIDE SCR AFCU STREAM 1 PRESSURE INDICATOR TRANSMITTER
RAT-U3-3032-TXS-HSJ20CP005
U3 HSJ20CP005 B SIDE SCR AFCU STREAM 2 PRESSURE INDICATOR TRANSMITTER
RAT-U3-3032-VLV
U3 B SCR AMMONIA FLOW CONTROL SKID - VALVES
RAT-U3-3032-VLV-HSJ20AA004
U3 HSJ20AA004 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 PNEUMATIC SHUTOFF VALVE
RAT-U3-3032-VLV-HSJ20AA010
U3 HSJ20AA010 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 PNEUMATIC SHUTOFF VALVE
RAT-U3-3032-VLV-HSJ20AA073
U3 HSJ20AA073 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW CONTROL VALVE INLET ISOLATION VALVE 1
RAT-U3-3032-VLV-HSJ20AA074
U3 HSJ20AA074 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW CONTROL VALVE INLET ISOLATION VALVE 2
RAT-U3-3032-VLV-HSJ20AA075
U3 HSJ20AA075 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW CONTROL VALVE OUTLET ISOLATION VALVE 1
RAT-U3-3032-VLV-HSJ20AA076
U3 HSJ20AA076 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 FLOW CONTROL VALVE OUTLET ISOLATION VALVE 2
RAT-U3-3032-VLV-HSJ20AA077
U3 HSJ20AA077 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW CONTROL VALVE INLET ISOLATION VALVE 1
RAT-U3-3032-VLV-HSJ20AA078
U3 HSJ20AA078 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW CONTROL VALVE INLET ISOLATION VALVE 2
RAT-U3-3032-VLV-HSJ20AA079
U3 HSJ20AA079 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW CONTROL VALVE OUTLET ISOLATION VALVE 1
RAT-U3-3032-VLV-HSJ20AA080
U3 HSJ20AA080 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 FLOW CONTROL VALVE OUTLET ISOLATION VALVE 2
RAT-U3-3032-VLV-HSJ20AA110
U3 HSJ20AA110 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 CHECK VALVE
RAT-U3-3032-VLV-HSJ20AA111
U3 HSJ20AA111 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 CHECK VALVE
RAT-U3-3032-VLV-HSJ20AA201
U3 HSJ20AA201 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 PNEUMATIC FLOW CONTROL VALVE
RAT-U3-3032-VLV-HSJ20AA202
U3 HSJ20AA202 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 PNEUMATIC FLOW CONTROL VALVE
RAT-U3-3032-VLV-HSJ20AA301
U3 HSJ20AA301 PRESSURE INDICATOR TRANSMITTER ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA305
U3 HSJ20AA305 PRESSURE INDICATOR TRANSMITTER ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA505
U3 HSJ20AA505 DRAIN LINE ISOLATION - MANUAL BALL VALVE

RAT-U3-3032-VLV-HSJ20AA506
U3 HSJ20AA506 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA507
U3 HSJ20AA507 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA508
U3 HSJ20AA508 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA509
U3 HSJ20AA509 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA510
U3 HSJ20AA510 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA511
U3 HSJ20AA511 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA512
U3 HSJ20AA512 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA513
U3 HSJ20AA513 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA514
U3 HSJ20AA514 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA515
U3 HSJ20AA515 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA516
U3 HSJ20AA516 DRAIN LINE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA517
U3 HSJ20AA517 AFCU SKID BLEED/VENT TO DILUTION AIR SYSTEM - ISOLATION VALVE
RAT-U3-3032-VLV-HSJ20AA518
U3 HSJ20AA518 AFCU SKID BLEED/VENT TO DILUTION AIR SYSTEM - ISOLATION VALVE
RAT-U3-3032-VLV-HSJ20AA651
U3 HSJ20AA651 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 2 SAMPLE POINT ISOLATION VALVE
RAT-U3-3032-VLV-HSJ20AA652
U3 HSJ20AA652 B SIDE SCR AMMONIA FLOW CONTROL UNIT STREAM 1 SAMPLE POINT ISOLATION VALVE
RAT-U3-3032-VLV-HSJ20AA801
U3 HSJ20AA801 B SIDE SCR AFCU / AMMONIA TRANSFER PIPE PURGE/VENT HOSE CONNECTION ISOLATION VALVE 1
RAT-U3-3032-VLV-HSJ20AA802
U3 HSJ20AA802 B SIDE SCR AFCU / AMMONIA TRANSFER PIPE PURGE/VENT HOSE CONNECTION ISOLATION VALVE 2
RAT-U3-3032-VLV-HSJ20AA805
U3 HSJ20AA805 NITROGEN PURGE CONNECTION ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA806
U3 HSJ20AA806 NITROGEN PURGE CONNECTION ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA807
U3 HSJ20AA807 NITROGEN PURGE CONNECTION ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-HSJ20AA808
U3 HSJ20AA808 NITROGEN PURGE CONNECTION ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-QEB20AA005
U3 QEB20AA005 INSTRUMENT AIR MANIFOLD ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-QEB20AA006
U3 QEB20AA006 INSTRUMENT AIR TO HSJ20 AA010 & HSJ20 AA202 ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-QEB20AA007
U3 QEB20AA007 INSTRUMENT AIR TO HSJ20 AA004 HSJ20 AA201 ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-QEB20AA008
U3 QEB20AA008 INSTRUMENT AIR SPARE ISOLATION - MANUAL BALL VALVE
RAT-U3-3032-VLV-QEB20AA146

U3 QEB20AA146 B SIDE SCR AFCU STREAM 1 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 1
RAT-U3-3032-VLV-QEB20AA147
U3 QEB20AA147 B SIDE SCR AFCU STREAM 1 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 2
RAT-U3-3032-VLV-QEB20AA150
U3 QEB20AA150 B SIDE SCR AFCU STREAM 2 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 1
RAT-U3-3032-VLV-QEB20AA151
U3 QEB20AA151 B SIDE SCR AFCU STREAM 2 INSTRUMENT AIR SUPPLY SAFETY SHUT OFF VALVE 2
RAT-U3-3032-VLV-QEB20AA152
U3 QEB20AA152 B SIDE SCR AFCU SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3032-VLV-QEB20AA301
U3 QEB20CG152 B SIDE SCR AFCU SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3035
U3 A SCR AMMONIA INJECTION GRID
RAT-U3-3035-NOZ
U3 A SCR AMMONIA INJECTION GRID - NOZZLES
RAT-U3-3035-NOZ-HSK10BN001
U3 HSK10BN001 A SIDE SCR AMMONIA INJECTION GRID
RAT-U3-3035-ORI
U3 A SCR AMMONIA INJECTION GRID - ORIFICE PLATES
RAT-U3-3035-ORI-HSK10BP001
U3 HSK10BP001 A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 ORIFICE
RAT-U3-3035-ORI-HSK10BP002
U3 HSK10BP002 A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 ORIFICE
RAT-U3-3035-ORI-HSK10BP003
U3 HSK10BP003 A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 ORIFICE
RAT-U3-3035-ORI-HSK10BP004
U3 HSK10BP004 A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 ORIFICE
RAT-U3-3035-ORI-HSK10BP005
U3 HSK10BP005 A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 ORIFICE
RAT-U3-3035-ORI-HSK10BP006
U3 HSK10BP006 A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 ORIFICE
RAT-U3-3035-ORI-HSK10BP007
U3 HSK10BP007 A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 ORIFICE
RAT-U3-3035-ORI-HSK10BP008
U3 HSK10BP008 A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 ORIFICE
RAT-U3-3035-ORI-HSK10BP009
U3 HSK10BP009 A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 ORIFICE
RAT-U3-3035-ORI-HSK10BP010
U3 HSK10BP010 A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 ORIFICE
RAT-U3-3035-ORI-HSK10BP011
U3 HSK10BP011 A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 ORIFICE
RAT-U3-3035-ORI-HSK10BP012
U3 HSK10BP012 A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 ORIFICE
RAT-U3-3035-ORI-HSK10BP013
U3 HSK10BP013 A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 ORIFICE
RAT-U3-3035-ORI-HSK10BP014
U3 HSK10BP014 A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 ORIFICE
RAT-U3-3035-ORI-HSK10BP015
U3 HSK10BP015 A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 ORIFICE
RAT-U3-3035-ORI-HSK10BP016
U3 HSK10BP016 A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 ORIFICE
RAT-U3-3035-ORI-HSK10BP017

U3 HSK10BP017	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 ORIFICE
	RAT-U3-3035-ORI-HSK10BP018
U3 HSK10BP018	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 ORIFICE
	RAT-U3-3035-ORI-HSK10BP019
U3 HSK10BP019	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 ORIFICE
	RAT-U3-3035-ORI-HSK10BP020
U3 HSK10BP020	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 ORIFICE
	RAT-U3-3035-ORI-HSK10BP021
U3 HSK10BP021	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 ORIFICE
	RAT-U3-3035-PGS
U3	A SCR AMMONIA INJECTION GRID - PRESSURE GAUGES
	RAT-U3-3035-PGS-HSK10CP001
U3 HSK10CP001	A SIDE SCR AMMONIA INJECTION MAIN HEADER PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP002
U3 HSK10CP002	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP003
U3 HSK10CP003	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP004
U3 HSK10CP004	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP005
U3 HSK10CP005	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP006
U3 HSK10CP006	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP007
U3 HSK10CP007	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP008
U3 HSK10CP008	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP009
U3 HSK10CP009	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP010
U3 HSK10CP010	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP011
U3 HSK10CP011	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP012
U3 HSK10CP012	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP013
U3 HSK10CP013	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP014
U3 HSK10CP014	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP015
U3 HSK10CP015	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP016
U3 HSK10CP016	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP017
U3 HSK10CP017	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP018
U3 HSK10CP018	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP019
U3 HSK10CP019	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP020
U3 HSK10CP020	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP021

U3 HSK10CP021	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PGS-HSK10CP022
U3 HSK10CP022	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
	RAT-U3-3035-PWK
	U3 A SCR AMMONIA INJECTION GRID - PIPEWORK
	RAT-U3-3035-PWK-HSK10BR101
U3 HSK10BR101	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR102
U3 HSK10BR102	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR103
U3 HSK10BR103	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR104
U3 HSK10BR104	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR105
U3 HSK10BR105	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR106
U3 HSK10BR106	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR107
U3 HSK10BR107	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR108
U3 HSK10BR108	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR109
U3 HSK10BR109	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR110
U3 HSK10BR110	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR111
U3 HSK10BR111	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR112
U3 HSK10BR112	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR113
U3 HSK10BR113	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR114
U3 HSK10BR114	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR115
U3 HSK10BR115	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR116
U3 HSK10BR116	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR117
U3 HSK10BR117	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR118
U3 HSK10BR118	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR119
U3 HSK10BR119	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR120
U3 HSK10BR120	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 FLEXIBLE
	RAT-U3-3035-PWK-HSK10BR121
U3 HSK10BR121	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 FLEXIBLE
	RAT-U3-3035-VLV
	U3 A SCR AMMONIA INJECTION GRID - VALVES
	RAT-U3-3035-VLV-HSK10AA001
U3 HSK10AA001	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA002

U3 HSK10AA002	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA003
U3 HSK10AA003	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA004
U3 HSK10AA004	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA005
U3 HSK10AA005	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA006
U3 HSK10AA006	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA007
U3 HSK10AA007	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA008
U3 HSK10AA008	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA009
U3 HSK10AA009	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA010
U3 HSK10AA010	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA011
U3 HSK10AA011	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA012
U3 HSK10AA012	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA013
U3 HSK10AA013	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA014
U3 HSK10AA014	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA015
U3 HSK10AA015	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA016
U3 HSK10AA016	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA017
U3 HSK10AA017	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA018
U3 HSK10AA018	A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA019
U3 HSK10AA019	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA020
U3 HSK10AA020	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA021
U3 HSK10AA021	A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 TUNING VALVE
	RAT-U3-3035-VLV-HSK10AA302
U3 HSK10AA302	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
	RAT-U3-3035-VLV-HSK10AA303
U3 HSK10AA303	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
	RAT-U3-3035-VLV-HSK10AA304
U3 HSK10AA304	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
	RAT-U3-3035-VLV-HSK10AA305
U3 HSK10AA305	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
	RAT-U3-3035-VLV-HSK10AA306
U3 HSK10AA306	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
	RAT-U3-3035-VLV-HSK10AA307

U3 HSK10AA307	A SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA308
U3 HSK10AA308	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA309
U3 HSK10AA309	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA310
U3 HSK10AA310	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA311
U3 HSK10AA311	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA312
U3 HSK10AA312	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA313
U3 HSK10AA313	A SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA314
U3 HSK10AA314	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA315
U3 HSK10AA315	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA316
U3 HSK10AA316	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA317
U3 HSK10AA317	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA318
U3 HSK10AA318	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA319
U3 HSK10AA319	A SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA320
U3 HSK10AA320	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA321
U3 HSK10AA321	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA322
U3 HSK10AA322	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA323
U3 HSK10AA323	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA324
U3 HSK10AA324	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA325
U3 HSK10AA325	A SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA326
U3 HSK10AA326	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA327
U3 HSK10AA327	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3035-VLV-HSK10AA328
U3 HSK10AA328	A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE

RAT-U3-3035-VLV-HSK10AA329
U3 HSK10AA329 A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA330
U3 HSK10AA330 A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA331
U3 HSK10AA331 A SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA332
U3 HSK10AA332 A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA333
U3 HSK10AA333 A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA334
U3 HSK10AA334 A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA335
U3 HSK10AA335 A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA336
U3 HSK10AA336 A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA337
U3 HSK10AA337 A SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA338
U3 HSK10AA338 A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA339
U3 HSK10AA339 A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA340
U3 HSK10AA340 A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA341
U3 HSK10AA341 A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA342
U3 HSK10AA342 A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3035-VLV-HSK10AA343
U3 HSK10AA343 A SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3036
U3 B SCR AMMONIA INJECTION GRID
RAT-U3-3036-NOZ
U3 B SCR AMMONIA INJECTION GRID - NOZZLES
RAT-U3-3036-NOZ-HSK20BN001
U3 HSK20BN001 B SIDE SCR AMMONIA INJECTION GRID
RAT-U3-3036-ORI
U3 B SCR AMMONIA INJECTION GRID - ORIFICE PLATES
RAT-U3-3036-ORI-HSK20BP001
U3 HSK20BP001 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 ORIFICE
RAT-U3-3036-ORI-HSK20BP002
U3 HSK20BP002 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 ORIFICE
RAT-U3-3036-ORI-HSK20BP003
U3 HSK20BP003 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 ORIFICE
RAT-U3-3036-ORI-HSK20BP004
U3 HSK20BP004 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 ORIFICE

RAT-U3-3036-ORI-HSK20BP005
U3 HSK20BP005 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 ORIFICE
RAT-U3-3036-ORI-HSK20BP006
U3 HSK20BP006 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 ORIFICE
RAT-U3-3036-ORI-HSK20BP007
U3 HSK20BP007 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 ORIFICE
RAT-U3-3036-ORI-HSK20BP008
U3 HSK20BP008 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 ORIFICE
RAT-U3-3036-ORI-HSK20BP009
U3 HSK20BP009 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 ORIFICE
RAT-U3-3036-ORI-HSK20BP010
U3 HSK20BP010 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 ORIFICE
RAT-U3-3036-ORI-HSK20BP011
U3 HSK20BP011 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 ORIFICE
RAT-U3-3036-ORI-HSK20BP012
U3 HSK20BP012 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 ORIFICE
RAT-U3-3036-ORI-HSK20BP013
U3 HSK20BP013 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 ORIFICE
RAT-U3-3036-ORI-HSK20BP014
U3 HSK20BP014 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 ORIFICE
RAT-U3-3036-ORI-HSK20BP015
U3 HSK20BP015 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 ORIFICE
RAT-U3-3036-ORI-HSK20BP016
U3 HSK20BP016 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 ORIFICE
RAT-U3-3036-ORI-HSK20BP017
U3 HSK20BP017 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 ORIFICE
RAT-U3-3036-ORI-HSK20BP018
U3 HSK20BP018 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 ORIFICE
RAT-U3-3036-ORI-HSK20BP019
U3 HSK20BP019 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 ORIFICE
RAT-U3-3036-ORI-HSK20BP020
U3 HSK20BP020 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 ORIFICE
RAT-U3-3036-ORI-HSK20BP021
U3 HSK20BP021 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 ORIFICE
RAT-U3-3036-PGS
U3 B SCR AMMONIA INJECTION GRID - PRESSURE GAUGES
RAT-U3-3036-PGS-HSK20CP001
U3 HSK20CP001 B SIDE SCR AMMONIA INJECTION MAIN HEADER PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP002
U3 HSK20CP002 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP003
U3 HSK20CP003 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP004
U3 HSK20CP004 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP005
U3 HSK20CP005 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP006
U3 HSK20CP006 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP007
U3 HSK20CP007 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP008
U3 HSK20CP008 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE

RAT-U3-3036-PGS-HSK20CP009
U3 HSK20CP009 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP010
U3 HSK20CP010 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP011
U3 HSK20CP011 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP012
U3 HSK20CP012 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP013
U3 HSK20CP013 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP014
U3 HSK20CP014 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP015
U3 HSK20CP015 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP016
U3 HSK20CP016 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP017
U3 HSK20CP017 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP018
U3 HSK20CP018 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP019
U3 HSK20CP019 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP020
U3 HSK20CP020 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP021
U3 HSK20CP021 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PGS-HSK20CP022
U3 HSK20CP022 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE
RAT-U3-3036-PWK
U3 B SCR AMMONIA INJECTION GRID - PIPEWORK
RAT-U3-3036-PWK-HSK20BR101
U3 HSK20BR101 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR102
U3 HSK20BR102 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR103
U3 HSK20BR103 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR104
U3 HSK20BR104 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR105
U3 HSK20BR105 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR106
U3 HSK20BR106 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR107
U3 HSK20BR107 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR108
U3 HSK20BR108 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR109
U3 HSK20BR109 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR110
U3 HSK20BR110 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR111
U3 HSK20BR111 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 FLEXIBLE

RAT-U3-3036-PWK-HSK20BR112
U3 HSK20BR112 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR113
U3 HSK20BR113 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR114
U3 HSK20BR114 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR115
U3 HSK20BR115 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR116
U3 HSK20BR116 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR117
U3 HSK20BR117 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR118
U3 HSK20BR118 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR119
U3 HSK20BR119 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR120
U3 HSK20BR120 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 FLEXIBLE
RAT-U3-3036-PWK-HSK20BR121
U3 HSK20BR121 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 FLEXIBLE
RAT-U3-3036-VLV
U3 B SCR AMMONIA INJECTION GRID - VALVES
RAT-U3-3036-VLV-HSK20AA001
U3 HSK20AA001 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA002
U3 HSK20AA002 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA003
U3 HSK20AA003 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA004
U3 HSK20AA004 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA005
U3 HSK20AA005 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA006
U3 HSK20AA006 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA007
U3 HSK20AA007 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA008
U3 HSK20AA008 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA009
U3 HSK20AA009 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA010
U3 HSK20AA010 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA011
U3 HSK20AA011 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA012
U3 HSK20AA012 B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA013
U3 HSK20AA013 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA014
U3 HSK20AA014 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA015
U3 HSK20AA015 B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 TUNING VALVE

RAT-U3-3036-VLV-HSK20AA016
U3 HSK20AA016 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA017
U3 HSK20AA017 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA018
U3 HSK20AA018 B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA019
U3 HSK20AA019 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA020
U3 HSK20AA020 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA021
U3 HSK20AA021 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 TUNING VALVE
RAT-U3-3036-VLV-HSK20AA302
U3 HSK20AA302 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA303
U3 HSK20AA303 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA304
U3 HSK20AA304 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA305
U3 HSK20AA305 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA306
U3 HSK20AA306 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA307
U3 HSK20AA307 B SIDE SCR AMMONIA INJECTION ZONE 1 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA308
U3 HSK20AA308 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA309
U3 HSK20AA309 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA310
U3 HSK20AA310 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA311
U3 HSK20AA311 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA312
U3 HSK20AA312 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA313
U3 HSK20AA313 B SIDE SCR AMMONIA INJECTION ZONE 2 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA314
U3 HSK20AA314 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA315
U3 HSK20AA315 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA316
U3 HSK20AA316 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA317
U3 HSK20AA317 B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA318

U3 HSK20AA318	B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA319
U3 HSK20AA319	B SIDE SCR AMMONIA INJECTION ZONE 3 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA320
U3 HSK20AA320	B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA321
U3 HSK20AA321	B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA322
U3 HSK20AA322	B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA323
U3 HSK20AA323	B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA324
U3 HSK20AA324	B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA325
U3 HSK20AA325	B SIDE SCR AMMONIA INJECTION ZONE 4 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA326
U3 HSK20AA326	B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA327
U3 HSK20AA327	B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA328
U3 HSK20AA328	B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA329
U3 HSK20AA329	B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA330
U3 HSK20AA330	B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA331
U3 HSK20AA331	B SIDE SCR AMMONIA INJECTION ZONE 5 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA332
U3 HSK20AA332	B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA333
U3 HSK20AA333	B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA334
U3 HSK20AA334	B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA335
U3 HSK20AA335	B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA336
U3 HSK20AA336	B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA337
U3 HSK20AA337	B SIDE SCR AMMONIA INJECTION ZONE 6 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA338
U3 HSK20AA338	B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE RAT-U3-3036-VLV-HSK20AA339
U3 HSK20AA339	B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 1 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE

RAT-U3-3036-VLV-HSK20AA340
U3 HSK20AA340 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA341
U3 HSK20AA341 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 2 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA342
U3 HSK20AA342 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE UPSTREAM ISOLATION VALVE
RAT-U3-3036-VLV-HSK20AA343
U3 HSK20AA343 B SIDE SCR AMMONIA INJECTION ZONE 7 HEADER 3 ORIFICE DIFFERENTIAL PRESSURE GAUGE DOWNSTREAM ISOLATION VALVE
RAT-U3-304
U3 SCR DILUTION AIR SYSTEM
RAT-U3-3040
U3 SCR COMMON DILUTION AIR SYSTEM
RAT-U3-3040-APN
U3 SCR DILUTION AIR SYSTEM - PNEUMATIC ACTUATORS
RAT-U3-3040-APN-HSG01AA201
U3 HSG01AA201 DILUTION AIR BLOWER A FLOW CONTROL VALVE PNEUMATIC ACTUATOR
RAT-U3-3040-APN-HSG01AA202
U3 HSG01AA202 DILUTION AIR BLOWER B FLOW CONTROL VALVE PNEUMATIC ACTUATOR
RAT-U3-3040-ESB
U3 SCR DILUTION AIR SYSTEM - EMERGENCY STOP BUTTON
RAT-U3-3040-ESB-HSG01AE001
U3 HSG01AE001 SCR A DILUTION AIR BLOWER FAN EMERGENCY STOP BUTTON
RAT-U3-3040-ESB-HSG01AE002
U3 HSG01AE002 SCR B DILUTION AIR BLOWER FAN EMERGENCY STOP BUTTON
RAT-U3-3040-FAN
U3 SCR DILUTION AIR SYSTEM - FANS
RAT-U3-3040-FAN-HSG01AN001
U3 HSG01AN001 DILUTION AIR BLOWER A
RAT-U3-3040-FAN-HSG01AN002
U3 HSG01AN002 DILUTION AIR BLOWER B
RAT-U3-3040-FLT
U3 SCR DILUTION AIR SYSTEM - FILTERS
RAT-U3-3040-FLT-HSG01AT001
U3 HSG01AT001 DILUTION AIR BLOWER A INLET FILTER
RAT-U3-3040-FLT-HSG01AT002
U3 HSG01AT002 DILUTION AIR BLOWER B INLET FILTER
RAT-U3-3040-HTR
U3 SCR DILUTION AIR SYSTEM - HEATER
RAT-U3-3040-HTR-HSG01AN001
U3 HSG01AN001 SCR A DILUTION AIR BLOWER FAN MOTOR ANTI CONDENSATION HEATER
RAT-U3-3040-HTR-HSG01AN002
U3 HSG01AN002 SCR B DILUTION AIR BLOWER FAN MOTOR ANTI CONDENSATION HEATER
RAT-U3-3040-LIS
U3 SCR DILUTION AIR SYSTEM - LOCAL ISOLATING SWITCH
RAT-U3-3040-LIS-HSG01GS001
U3 HSG01AE001 SCR A DILUTION AIR BLOWER FAN MOTOR ANTI CONDENSATION HEATER LOCAL ISOLATING SWITCH
RAT-U3-3040-LIS-HSG01GS002
U3 HSG01AE002 SCR B DILUTION AIR BLOWER FAN MOTOR ANTI CONDENSATION HEATER LOCAL ISOLATING SWITCH
RAT-U3-3040-MTR
U3 SCR DILUTION AIR SYSTEM - MOTORS

RAT-U3-3040-MTR-HSG01AE001
U3 HSG01AE001 DILUTION AIR BLOWER FAN A MOTOR
RAT-U3-3040-MTR-HSG01AE002
U3 HSG01AE002 DILUTION AIR BLOWER FAN B MOTOR
RAT-U3-3040-PGS
U3 SCR DILUTION AIR SYSTEM - PRESSURE GAUGES
RAT-U3-3040-PGS-QEB01CP020
U3 QEB01CP020 DILUTION AIR BLOWER SKID INSTRUMENT AIR SUPPLY PRESSURE GAUGE
RAT-U3-3040-PGS-QEB01CP105
U3 QEB01CP105 AMMONIA DILUTION AIR / HEATER / MIXING INSTRUMENT AIR PRESSURE GAUGE
RAT-U3-3040-RES
U3 SCR DILUTION AIR SYSTEM - THERMISTORS
RAT-U3-3040-RES-HSG01CT021
U3 HSG01CT021 DILUTION AIR BLOWER A THERMISTOR
RAT-U3-3040-RES-HSG01CT022
U3 HSG01CT022 DILUTION AIR BLOWER B THERMISTOR
RAT-U3-3040-RTD
U3 SCR DILUTION AIR SYSTEM - RTD - TEMP MEASUREMENT
RAT-U3-3040-RTD-HSG01CT003
U3 HSG01CT003 DILUTION AIR BLOWER COMMON OUTLET TEMPERATURE TRANSMITTER 1 ELEMENT
RAT-U3-3040-RTD-HSG01CT004
U3 HSG01CT004 DILUTION AIR BLOWER COMMON OUTLET TEMPERATURE TRANSMITTER 2 ELEMENT
RAT-U3-3040-SIL
U3 SCR DILUTION AIR SYSTEM - SILENCERS
RAT-U3-3040-SIL-HSG01BS001
U3 HSG01BS001 DILUTION AIR BLOWER A INLET SILENCER
RAT-U3-3040-SIL-HSG01BS002
U3 HSG01BS002 DILUTION AIR BLOWER B INLET SILENCER
RAT-U3-3040-SWT
U3 SCR DILUTION AIR SYSTEM - SWITCH
RAT-U3-3040-SWT-HSG01AE001
U3 HSG01AE001 SCR A DILUTION AIR BLOWER FAN CONTACTOR
RAT-U3-3040-SWT-HSG01AE002
U3 HSG01AE002 SCR B DILUTION AIR BLOWER FAN CONTACTOR
RAT-U3-3040-TXS
U3 SCR DILUTION AIR SYSTEM - TRANSMITTERS
RAT-U3-3040-TXS-HSG01CF001
U3 HSG01CF001 DILUTION AIR BLOWER A FLOW RELAY
RAT-U3-3040-TXS-HSG01CF002
U3 HSG01CF002 DILUTION AIR BLOWER B FLOW RELAY
RAT-U3-3040-TXS-HSG01CG001
U3 HSG01CG001 DILUTION AIR BLOWER A DISCHARGE ISOLATION VALVE POSITION TRANSMITTER
RAT-U3-3040-TXS-HSG01CG002
U3 HSG01CG002 DILUTION AIR BLOWER B DISCHARGE ISOLATION VALVE POSITION TRANSMITTER
RAT-U3-3040-TXS-HSG01CP001
U3 HSG01CP001 DILUTION AIR BLOWER A INLET DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3040-TXS-HSG01CP002
U3 HSG01CP002 DILUTION AIR BLOWER B INLET DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3040-TXS-HSG01CP033
U3 HSG01CP033 DILUTION AIR BLOWER COMMON OUTLET PRESSURE TRANSMITTER 1
RAT-U3-3040-TXS-HSG01CP034
U3 HSG01CP034 DILUTION AIR BLOWER COMMON OUTLET PRESSURE TRANSMITTER 2

RAT-U3-3040-TXS-HSG01CT003
U3 HSG01CT003 DILUTION AIR BLOWER COMMON OUTLET TEMPERATURE TRANSMITTER 1
RAT-U3-3040-TXS-HSG01CT004
U3 HSG01CT004 DILUTION AIR BLOWER COMMON OUTLET TEMPERATURE TRANSMITTER 2
RAT-U3-3040-VLV
U3 SCR DILUTION AIR SYSTEM - VALVES
RAT-U3-3040-VLV-HSG01AA001
U3 HSG01AA001 DILUTION AIR BLOWER A DISCHARGE ISOLATION VALVE
RAT-U3-3040-VLV-HSG01AA002
U3 HSG01AA002 DILUTION AIR BLOWER B DISCHARGE ISOLATION VALVE
RAT-U3-3040-VLV-HSG01AA201
U3 HSG01AA201 DILUTION AIR BLOWER A FLOW CONTROL VALVE
RAT-U3-3040-VLV-HSG01AA202
U3 HSG01AA202 DILUTION AIR BLOWER B FLOW CONTROL VALVE
RAT-U3-3040-VLV-HSG01AA301
U3 HSG01AA301 DILUTION AIR BLOWER A INLET DIFFERENTIAL PRESSURE TRANSMITTER ISOLATION VALVE
RAT-U3-3040-VLV-HSG01AA302
U3 HSG01AA302 DILUTION AIR BLOWER B INLET DIFFERENTIAL PRESSURE TRANSMITTER ISOLATION VALVE
RAT-U3-3040-VLV-HSG01AA315
U3 HSG01AA315 DILUTION AIR SUPPLY PRESSURE TRANSMITTER ISOLATION VALVE (UPSTREAM OF HEATER)
RAT-U3-3040-VLV-HSG01AA316
U3 HSG01AA316 DILUTION AIR SUPPLY PRESSURE TRANSMITTER ISOLATION VALVE (UPSTREAM OF HEATER)
RAT-U3-3040-VLV-QEB01AA024
U3 QEB01AA024 DILUTION AIR BLOWER SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3040-VLV-QEB01AA086
U3 QEB01AA086 DILUTION AIR SKID INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3040-VLV-QEB01AA087
U3 QEB01AA087 DILUTION AIR BLOWER A OUTLET FLOW CONTROL VALVE INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3040-VLV-QEB01AA088
U3 QEB01AA088 DILUTION AIR BLOWER B OUTLET FLOW CONTROL VALVE INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3040-VLV-QEB01AA089
U3 QEB01AA089 DILUTION AIR SKID INSTRUMENT AIR SUPPLY MANIFOLD SPARE ISOLATION VALVE
RAT-U3-3040-VLV-QEB01AA320
U3 QEB01AA320 DILUTION AIR BLOWER SKID INSTRUMENT AIR SUPPLY PRESSURE GAUGE ISOLATION VALVE
RAT-U3-3041
U3 A SCR DILUTION AIR SYSTEM
RAT-U3-3041-ORI
U3 A SCR DILUTION AIR SYSTEM - ORIFICE PLATES
RAT-U3-3041-ORI-HSG10CF001
U3 HSG10CF001 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE
RAT-U3-3041-TXS
U3 A SCR DILUTION AIR SYSTEM - TRANSMITTERS
RAT-U3-3041-TXS-HSG10CP001
U3 HSG10CP001 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 1
RAT-U3-3041-TXS-HSG10CP002
U3 HSG10CP002 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 2
RAT-U3-3041-TXS-HSG10CP003
U3 HSG10CP003 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 3
RAT-U3-3041-TXS-HSG10CP004
U3 HSG10CP004 A SIDE SCR DILUTION AIR HEATER OUTLET PRESSURE TRANSMITTER

RAT-U3-3041-TXS-HSG10CP005
U3 HSG10CP005 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 4
RAT-U3-3041-TXS-HSG10CP006
U3 HSG10CP006 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 5
RAT-U3-3041-VLV
U3 A SCR DILUTION AIR SYSTEM - VALVES
RAT-U3-3041-VLV-HSG10AA002
U3 HSG10AA002 DILUTION AIR SUPPLY (A SIDE SCR) ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA303
U3 HSG10AA303 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 1 UPSTREAM ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA304
U3 HSG10AA304 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 1 DOWNSTREAM ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA305
U3 HSG10AA305 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 2 UPSTREAM ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA306
U3 HSG10AA306 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 2 DOWNSTREAM ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA307
U3 HSG10AA307 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 3 UPSTREAM ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA308
U3 HSG10AA308 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 3 DOWNSTREAM ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA309
U3 HSG10AA309 A SIDE SCR DILUTION AIR HEATER OUTLET PRESSURE TRANSMITTER ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA310
U3 HSG10AA310 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 4 UPSTREAM ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA311
U3 HSG10AA311 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 4 DOWNSTREAM ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA312
U3 HSG10AA312 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 5 UPSTREAM ISOLATION VALVE
RAT-U3-3041-VLV-HSG10AA313
U3 HSG10AA313 A SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 5 DOWNSTREAM ISOLATION VALVE
RAT-U3-3041-VLV-HSK10AA301
U3 HSK10AA301 A SIDE SCR DILUTION AIR AMMONIA MIXTURE SUPPLY PRESSURE INDICATOR ISOLATION VALVE
RAT-U3-3042
U3 B SCR DILUTION AIR SYSTEM
RAT-U3-3042-ORI
U3 B SCR DILUTION AIR SYSTEM - ORIFICE PLATES
RAT-U3-3042-ORI-HSG20CF001
U3 HSG20CF001 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE
RAT-U3-3042-TXS
U3 B SCR DILUTION AIR SYSTEM - TRANSMITTERS
RAT-U3-3042-TXS-HSG20CP001
U3 HSG20CP001 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 1
RAT-U3-3042-TXS-HSG20CP002
U3 HSG20CP002 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 2
RAT-U3-3042-TXS-HSG20CP003
U3 HSG20CP003 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE

TRANSMITTER 3
RAT-U3-3042-TXS-HSG20CP004
U3 HSG20CP004 B SIDE SCR DILUTION AIR HEATER OUTLET PRESSURE TRANSMITTER
RAT-U3-3042-TXS-HSG20CP005
U3 HSG20CP005 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 4
RAT-U3-3042-TXS-HSG20CP006
U3 HSG20CP006 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 5
RAT-U3-3042-VLV
U3 B SCR DILUTION AIR SYSTEM - VALVES
RAT-U3-3042-VLV-HSG20AA002
U3 HSG20AA002 DILUTION AIR SUPPLY (B SIDE SCR) ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA303
U3 HSG20AA303 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 1 UPSTREAM ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA304
U3 HSG20AA304 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 1 DOWNSTREAM ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA305
U3 HSG20AA305 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 2 UPSTREAM ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA306
U3 HSG20AA306 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 2 DOWNSTREAM ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA307
U3 HSG20AA307 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 3 UPSTREAM ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA308
U3 HSG20AA308 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 3 DOWNSTREAM ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA309
U3 HSG20AA309 B SIDE SCR DILUTION AIR HEATER OUTLET PRESSURE TRANSMITTER ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA310
U3 HSG20AA310 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 4 UPSTREAM ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA311
U3 HSG20AA311 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 4 DOWNSTREAM ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA312
U3 HSG20AA312 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 5 UPSTREAM ISOLATION VALVE
RAT-U3-3042-VLV-HSG20AA313
U3 HSG20AA313 B SIDE SCR DILUTION AIR FLOW MEASUREMENT ORIFICE DIFFERENTIAL PRESSURE TRANSMITTER 5 DOWNSTREAM ISOLATION VALVE
RAT-U3-3042-VLV-HSK20AA301
U3 HSK20AA301 B SIDE SCR DILUTION AIR AMMONIA MIXTURE SUPPLY PRESSURE INDICATOR ISOLATION VALVE
RAT-U3-3044
U3 A SCR LAY UP HEATERS AND STATIC MIXER
RAT-U3-3044-HTR
U3 A SCR LAYUP HEATERS AND MIXER SYSTEM - HEATERS
RAT-U3-3044-HTR-HSG10AH001
U3 HSG10AH001 A SIDE LAYUP HEATERS
RAT-U3-3044-HTR-HSG10AH009
U3 HSG10AH009 DILUTION AIR LAYUP HEATER A1
RAT-U3-3044-HTR-HSG10AH010
U3 HSG10AH010 DILUTION AIR LAYUP HEATER A2
RAT-U3-3044-HTR-HSG10AH011
U3 HSG10AH011 DILUTION AIR LAYUP HEATER A3

RAT-U3-3044-HTR-HSG10AH012
U3 HSG10AH012 DILUTION AIR LAYUP HEATER A4
RAT-U3-3044-HTR-HSG10AH013
U3 HSG10AH013 DILUTION AIR LAYUP HEATER A5
RAT-U3-3044-HTR-HSG10AH014
U3 HSG10AH014 DILUTION AIR LAYUP HEATER A6
RAT-U3-3044-MXR
U3 A SCR LAYUP HEATERS AND MIXER SYSTEM - MIXERS
RAT-U3-3044-MXR-HSG10AM001
U3 HSG10AM001 A SIDE SCR DILUTION AIR / AMMONIA STATIC MIXER
RAT-U3-3044-RTD
U3 A SCR LAYUP HEATERS AND MIXER SYSTEM - RTD - TEMP MEASUREMENT
RAT-U3-3044-RTD-HSG10CT001
U3 HSG10CT001 A SIDE SCR DILUTION AIR HEATER OUTLET TEMPERATURE TRANSMITTER 1 ELEMENT
RAT-U3-3044-RTD-HSG10CT002
U3 HSG10CT002 A SIDE SCR DILUTION AIR HEATER OUTLET TEMPERATURE TRANSMITTER 2 ELEMENT
RAT-U3-3044-SWT
U3 A SCR LAYUP HEATERS AND MIXER SYSTEM - SWITCHES
RAT-U3-3044-SWT-HSG10AH001
U3 HSG10AH001 A SIDE SCR LAYUP HEATERS SUPPLY TO 6 HEATERS ISOLATOR AT 3-N
RAT-U3-3044-TXS
U3 A SCR LAYUP HEATERS AND MIXER SYSTEM - TRANSMITTERS
RAT-U3-3044-TXS-HSG10CT001
U3 HSG10CT001 A SIDE SCR DILUTION AIR HEATER OUTLET TEMPERATURE TRANSMITTER 1
RAT-U3-3044-TXS-HSG10CT002
U3 HSG10CT002 A SIDE SCR DILUTION AIR HEATER OUTLET TEMPERATURE TRANSMITTER 2
RAT-U3-3044-TXS-HSG10CT009
U3 HSG10CT009 LAYUP HEATER A SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3044-TXS-HSG10CT010
U3 HSG10CT010 LAYUP HEATER A SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3044-TXS-HSG10CT011
U3 HSG10CT011 LAYUP HEATER A SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3044-TXS-HSG10CT012
U3 HSG10CT012 LAYUP HEATER A SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3044-TXS-HSG10CT013
U3 HSG10CT013 LAYUP HEATER A SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3044-TXS-HSG10CT014
U3 HSG10CT014 LAYUP HEATER A SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3044-VLV
U3 A SCR LAYUP HEATERS AND MIXER SYSTEM - VALVES
RAT-U3-3044-VLV-HSG10AA001
U3 HSG10AA001 DILUTION AIR HEATER A OUTLET ISOLATION VALVE
RAT-U3-3044-VLV-HSG10AA005
U3 HSG10AA005 DILUTION AIR HEATER A DRAIN ISOLATION VALVE
RAT-U3-3045
U3 B SCR LAY UP HEATERS AND STATIC MIXER
RAT-U3-3045-HTR
U3 B SCR LAYUP HEATERS AND MIXER SYSTEM - HEATERS
RAT-U3-3045-HTR-HSG20AH001
U3 HSG20AH001 B SIDE LAYUP HEATERS
RAT-U3-3045-HTR-HSG20AH009
U3 HSG20AH009 DILUTION AIR LAYUP HEATER B1

RAT-U3-3045-HTR-HSG20AH010
U3 HSG20AH010 DILUTION AIR LAYUP HEATER B2
RAT-U3-3045-HTR-HSG20AH011
U3 HSG20AH011 DILUTION AIR LAYUP HEATER B3
RAT-U3-3045-HTR-HSG20AH012
U3 HSG20AH012 DILUTION AIR LAYUP HEATER B4
RAT-U3-3045-HTR-HSG20AH013
U3 HSG20AH013 DILUTION AIR LAYUP HEATER B5
RAT-U3-3045-HTR-HSG20AH014
U3 HSG20AH014 DILUTION AIR LAYUP HEATER B6
RAT-U3-3045-MXR
U3 B SCR LAYUP HEATERS AND MIXER SYSTEM - MIXERS
RAT-U3-3045-MXR-HSG20AM001
U3 HSG20AM001 B SIDE SCR DILUTION AIR / AMMONIA STATIC MIXER
RAT-U3-3045-RTD
U3 B SCR LAYUP HEATERS AND MIXER SYSTEM - RTD - TEMP MEASUREMENT
RAT-U3-3045-RTD-HSG20CT001
U3 HSG20CT001 B SIDE SCR DILUTION AIR HEATER OUTLET TEMPERATURE TRANSMITTER 1 ELEMENT
RAT-U3-3045-RTD-HSG20CT002
U3 HSG20CT002 B SIDE SCR DILUTION AIR HEATER OUTLET TEMPERATURE TRANSMITTER 2 ELEMENT
RAT-U3-3045-SWT
U3 B SCR LAYUP HEATERS AND MIXER SYSTEM - SWITCHES
RAT-U3-3045-SWT-HSG20AH001
U3 HSG20AH001 B SIDE SCR LAYUP HEATERS SUPPLIES 6 HEATERS ISOLATOR (AT 3-N)
RAT-U3-3045-TXS
U3 B SCR LAYUP HEATERS AND MIXER SYSTEM - TRANSMITTERS
RAT-U3-3045-TXS-HSG20CT001
U3 HSG20CT001 B SIDE SCR DILUTION AIR HEATER OUTLET TEMPERATURE TRANSMITTER 1
RAT-U3-3045-TXS-HSG20CT002
U3 HSG20CT002 B SIDE SCR DILUTION AIR HEATER OUTLET TEMPERATURE TRANSMITTER 2
RAT-U3-3045-TXS-HSG20CT009
U3 HSG20CT009 LAYUP HEATER B SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3045-TXS-HSG20CT010
U3 HSG20CT010 LAYUP HEATER B SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3045-TXS-HSG20CT011
U3 HSG20CT011 LAYUP HEATER B SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3045-TXS-HSG20CT012
U3 HSG20CT012 LAYUP HEATER B SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3045-TXS-HSG20CT013
U3 HSG20CT013 LAYUP HEATER B SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3045-TXS-HSG20CT014
U3 HSG20CT014 LAYUP HEATER B SIDE - TEMPERATURE TRANSMITTER
RAT-U3-3045-VLV
U3 B SCR LAYUP HEATERS AND MIXER SYSTEM - VALVES
RAT-U3-3045-VLV-HSG20AA001
U3 HSG20AA001 DILUTION AIR HEATER B OUTLET ISOLATION VALVE
RAT-U3-3045-VLV-HSG20AA005
U3 HSG20AA005 DILUTION AIR HEATER B DRAIN ISOLATION VALVE
RAT-U3-305
U3 SCR REACTORS
RAT-U3-3050
U3 SCR REACTOR COMMON CATALYST SYSTEMS

RAT-U3-3050-REA
U3 A SCR REACTOR - REACTOR
RAT-U3-3050-REA-HSD10BB001
U3 HSD10BB001 A SIDE SCR REACTOR
RAT-U3-3050-REA-HSD20BB001
U3 HSD20BB001 B SIDE SCR REACTOR
RAT-U3-3051
U3 A SCR REACTOR CATALYST
RAT-U3-3051-CAT
U3 A SCR REACTOR - CATALYST
RAT-U3-3051-CAT-HSD10BT001
U3 HSD10BT001 A SIDE SCR REACTOR CATALYST LAYER 1
RAT-U3-3051-CAT-HSD10BT002
U3 HSD10BT002 A SIDE SCR REACTOR CATALYST LAYER 2
RAT-U3-3051-CAT-HSD10BT003
U3 HSD10BT003 A SIDE SCR REACTOR CATALYST LAYER 3
RAT-U3-3051-CAT-HSD10BT004
U3 HSD10BT004 A SIDE SCR REACTOR CATALYST LAYER 4
RAT-U3-3051-TXS
U3 A SCR REACTOR CATALYST - TRANSMITTERS
RAT-U3-3051-TXS-HSD10CP001
U3 HSD10CP001 A SIDE SCR CATALYST LAYER 1 DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3051-TXS-HSD10CP002
U3 HSD10CP002 A SIDE SCR CATALYST LAYER 2 DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3051-TXS-HSD10CP003
U3 HSD10CP003 A SIDE SCR CATALYST LAYER 3 DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3051-TXS-HSD10CP004
U3 HSD10CP004 A SIDE SCR CATALYST LAYER 4 DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3051-VLV
U3 A SCR REACTOR CATALYST - VALVES
RAT-U3-3051-VLV-HSD10AA303
U3 HSD10AA303 A SIDE SCR REACTOR CATALYST INLET PRESSURE TAPPING ISOLATION VALVE
RAT-U3-3051-VLV-HSD10AA304
U3 HSD10AA304 A SIDE SCR REACTOR CATALYST LAYER 1 DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3051-VLV-HSD10AA305
U3 HSD10AA305 A SIDE SCR REACTOR CATALYST LAYER 1 DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3051-VLV-HSD10AA306
U3 HSD10AA306 A SIDE SCR REACTOR CATALYST LAYER 2 DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3051-VLV-HSD10AA307
U3 HSD10AA307 A SIDE SCR REACTOR CATALYST LAYER 2 DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3051-VLV-HSD10AA308
U3 HSD10AA308 A SIDE SCR REACTOR CATALYST LAYER 3 DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3051-VLV-HSD10AA309
U3 HSD10AA309 A SIDE SCR REACTOR CATALYST LAYER 3 DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3051-VLV-HSD10AA310
U3 HSD10AA310 A SIDE SCR REACTOR CATALYST LAYER 4 DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3051-VLV-HSD10AA311
U3 HSD10AA311 A SIDE SCR REACTOR CATALYST LAYER 4 DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE

RAT-U3-3051-VLV-HSD10AA312
U3 HSD10AA312 A SIDE SCR REACTOR CATALYST OUTLET PRESSURE TAPPING ISOLATION VALVE
RAT-U3-3052
U3 B SCR REACTOR CATALYST
RAT-U3-3052-CAT
U3 B SCR REACTOR - CATALYST
RAT-U3-3052-CAT-HSD20BT001
U3 HSD20BT001 B SIDE SCR REACTOR CATALYST LAYER 1
RAT-U3-3052-CAT-HSD20BT002
U3 HSD20BT002 B SIDE SCR REACTOR CATALYST LAYER 2
RAT-U3-3052-CAT-HSD20BT003
U3 HSD20BT003 B SIDE SCR REACTOR CATALYST LAYER 3
RAT-U3-3052-CAT-HSD20BT004
U3 HSD20BT004 B SIDE SCR REACTOR CATALYST LAYER 4
RAT-U3-3052-TXS
U3 B SCR REACTOR CATALYST - TRANSMITTERS
RAT-U3-3052-TXS-HSD20CP001
U3 HSD20CP001 B SIDE SCR CATALYST LAYER 1 DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3052-TXS-HSD20CP002
U3 HSD20CP002 B SIDE SCR CATALYST LAYER 2 DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3052-TXS-HSD20CP003
U3 HSD20CP003 B SIDE SCR CATALYST LAYER 3 DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3052-TXS-HSD20CP004
U3 HSD20CP004 B SIDE SCR CATALYST LAYER 4 DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3052-VLV
U3 B SCR REACTOR CATALYST - VALVES
RAT-U3-3052-VLV-HSD20AA303
U3 HSD20AA303 B SIDE SCR REACTOR CATALYST INLET PRESSURE TAPPING ISOLATION VALVE
RAT-U3-3052-VLV-HSD20AA304
U3 HSD20AA304 B SIDE SCR REACTOR CATALYST LAYER 1 DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3052-VLV-HSD20AA305
U3 HSD20AA305 B SIDE SCR REACTOR CATALYST LAYER 1 DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3052-VLV-HSD20AA306
U3 HSD20AA306 B SIDE SCR REACTOR CATALYST LAYER 2 DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3052-VLV-HSD20AA307
U3 HSD20AA307 B SIDE SCR REACTOR CATALYST LAYER 2 DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3052-VLV-HSD20AA308
U3 HSD20AA308 B SIDE SCR REACTOR CATALYST LAYER 3 DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3052-VLV-HSD20AA309
U3 HSD20AA309 B SIDE SCR REACTOR CATALYST LAYER 3 DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3052-VLV-HSD20AA310
U3 HSD20AA310 B SIDE SCR REACTOR CATALYST LAYER 4 DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3052-VLV-HSD20AA311
U3 HSD20AA311 B SIDE SCR REACTOR CATALYST LAYER 4 DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3052-VLV-HSD20AA312
U3 HSD20AA312 B SIDE SCR REACTOR CATALYST OUTLET PRESSURE TAPPING ISOLATION VALVE
RAT-U3-3053
U3 SCR ACOUSTIC HORN COMMON SYSTEMS
RAT-U3-3053-TXS

U3 SCR ACOUSTIC HORNS COMMON SYSTEM - TRANSMITTERS
RAT-U3-3053-TXS-HCG01CP001
U3 HCG01CP001 SCR ACOUSTIC HORN MAIN AIR SUPPLY PRESSURE TRANSMITTER
RAT-U3-3053-VLV
U3 SCR ACOUSTIC HORNS COMMON SYSTEM - VALVES
RAT-U3-3053-VLV-HCG01AA001
U3 HCG01AA001 SCR ACOUSTIC HORN MAIN AIR SUPPLY ISOLATION VALVE
RAT-U3-3053-VLV-HCG01AA302
U3 HCG01AA302 SCR ACOUSTIC HORN MAIN AIR SUPPLY PRESSURE TRANSMITTER ISOLATION VALVE
RAT-U3-3054
U3 A SCR ACOUSTIC HORN SYSTEM
RAT-U3-3054-AHN
U3 A SCR ACOUSTIC HORNS - ACCOUSTIC HORNS
RAT-U3-3054-AHN-HCG10AT002
U3 HCG10AT002 A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 1
RAT-U3-3054-AHN-HCG10AT003
U3 HCG10AT003 A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 2
RAT-U3-3054-AHN-HCG10AT004
U3 HCG10AT004 A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 3
RAT-U3-3054-AHN-HCG10AT005
U3 HCG10AT005 A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 4
RAT-U3-3054-AHN-HCG10AT007
U3 HCG10AT007 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 1
RAT-U3-3054-AHN-HCG10AT008
U3 HCG10AT008 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 2
RAT-U3-3054-AHN-HCG10AT009
U3 HCG10AT009 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 3
RAT-U3-3054-AHN-HCG10AT010
U3 HCG10AT010 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 4
RAT-U3-3054-AHN-HCG10AT012
U3 HCG10AT012 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 1
RAT-U3-3054-AHN-HCG10AT013
U3 HCG10AT013 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 2
RAT-U3-3054-AHN-HCG10AT014
U3 HCG10AT014 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 3
RAT-U3-3054-AHN-HCG10AT015
U3 HCG10AT015 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 4
RAT-U3-3054-AHN-HCG10AT017
U3 HCG10AT017 A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 1
RAT-U3-3054-AHN-HCG10AT018
U3 HCG10AT018 A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 2
RAT-U3-3054-AHN-HCG10AT019
U3 HCG10AT019 A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 3
RAT-U3-3054-AHN-HCG10AT020
U3 HCG10AT020 A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 4
RAT-U3-3054-FLT
U3 A SCR ACOUSTIC HORNS - AIR FILTERS
RAT-U3-3054-FLT-HCG10AT001
U3 HCG10AT001 A SIDE SCR ACOUSTIC HORN AIR FILTER
RAT-U3-3054-PWK
U3 A SCR ACOUSTIC HORNS - AIR PIPEWORK
RAT-U3-3054-PWK-HCG10BR103

U3 HCG10BR103	A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 1 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR104
U3 HCG10BR104	A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 2 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR105
U3 HCG10BR105	A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 3 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR106
U3 HCG10BR106	A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 4 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR108
U3 HCG10BR108	A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 1 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR109
U3 HCG10BR109	A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 2 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR110
U3 HCG10BR110	A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 3 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR111
U3 HCG10BR111	A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 4 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR113
U3 HCG10BR113	A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 1 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR114
U3 HCG10BR114	A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 2 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR115
U3 HCG10BR115	A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 3 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR116
U3 HCG10BR116	A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 4 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR118
U3 HCG10BR118	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 1 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR119
U3 HCG10BR119	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 2 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR120
U3 HCG10BR120	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 3 FLEXIBLE
	RAT-U3-3054-PWK-HCG10BR121
U3 HCG10BR121	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 4 FLEXIBLE
	RAT-U3-3054-TXS
	U3 A SCR ACOUSTIC HORNS - TRANSMITTERS
	RAT-U3-3054-TXS-HCG10CP001
U3 HCG10CP001	A SIDE SCR ACOUSTIC HORN AIR FILTER DIFFERENTIAL PRESSURE TRANSMITTER
	RAT-U3-3054-VLV
	U3 A SCR ACOUSTIC HORNS - VALVES
	RAT-U3-3054-VLV-HCG01AA301
U3 HCG01AA301	A SIDE SCR ACOUSTIC HORN AIR FILTER DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
	RAT-U3-3054-VLV-HCG10AA001
U3 HCG10AA001	A SIDE SCR CATALYST LAYERS ACOUSTIC HORN SERVICE AIR SUPPLY ISOLATION VALVE
	RAT-U3-3054-VLV-HCG10AA003
U3 HCG10AA003	A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN SERVICE AIR SUPPLY ISOLATION VALVE
	RAT-U3-3054-VLV-HCG10AA004
U3 HCG10AA004	A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN SERVICE AIR SUPPLY PRESSURE REGULATING VALVE
	RAT-U3-3054-VLV-HCG10AA005
U3 HCG10AA005	A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 1 SERVICE AIR SUPPLY ISOLATION VALVE
	RAT-U3-3054-VLV-HCG10AA006
U3 HCG10AA006	A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 1 SOLENOID VALVE
	RAT-U3-3054-VLV-HCG10AA007
U3 HCG10AA007	A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 2 SERVICE AIR SUPPLY ISOLATION VALVE

RAT-U3-3054-VLV-HCG10AA008
U3 HCG10AA008 A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 2 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA009
U3 HCG10AA009 A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 3 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA010
U3 HCG10AA010 A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 3 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA011
U3 HCG10AA011 A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 4 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA012
U3 HCG10AA012 A SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 4 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA015
U3 HCG10AA015 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA016
U3 HCG10AA016 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN SERVICE AIR SUPPLY PRESSURE REGULATING VALVE
RAT-U3-3054-VLV-HCG10AA017
U3 HCG10AA017 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 1 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA018
U3 HCG10AA018 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 1 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA019
U3 HCG10AA019 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 2 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA020
U3 HCG10AA020 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 2 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA021
U3 HCG10AA021 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 3 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA022
U3 HCG10AA022 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 3 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA023
U3 HCG10AA023 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 4 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA024
U3 HCG10AA024 A SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 4 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA027
U3 HCG10AA027 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA028
U3 HCG10AA028 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN SERVICE AIR SUPPLY PRESSURE REGULATING VALVE
RAT-U3-3054-VLV-HCG10AA029
U3 HCG10AA029 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 1 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA030
U3 HCG10AA030 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 1 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA031
U3 HCG10AA031 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 2 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA032
U3 HCG10AA032 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 2 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA033
U3 HCG10AA033 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 3 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA034
U3 HCG10AA034 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 3 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA035
U3 HCG10AA035 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 4 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3054-VLV-HCG10AA036
U3 HCG10AA036 A SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 4 SOLENOID VALVE
RAT-U3-3054-VLV-HCG10AA039

U3 HCG10AA039	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN SERVICE AIR SUPPLY ISOLATION VALVE
	RAT-U3-3054-VLV-HCG10AA040
U3 HCG10AA040	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN SERVICE AIR SUPPLY PRESSURE REGULATING VALVE
	RAT-U3-3054-VLV-HCG10AA041
U3 HCG10AA041	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 1 SERVICE AIR SUPPLY ISOLATION VALVE
	RAT-U3-3054-VLV-HCG10AA042
U3 HCG10AA042	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 1 SOLENOID VALVE
	RAT-U3-3054-VLV-HCG10AA043
U3 HCG10AA043	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 2 SERVICE AIR SUPPLY ISOLATION VALVE
	RAT-U3-3054-VLV-HCG10AA044
U3 HCG10AA044	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 2 SOLENOID VALVE
	RAT-U3-3054-VLV-HCG10AA045
U3 HCG10AA045	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 3 SERVICE AIR SUPPLY ISOLATION VALVE
	RAT-U3-3054-VLV-HCG10AA046
U3 HCG10AA046	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 3 SOLENOID VALVE
	RAT-U3-3054-VLV-HCG10AA047
U3 HCG10AA047	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 4 SERVICE AIR SUPPLY ISOLATION VALVE
	RAT-U3-3054-VLV-HCG10AA048
U3 HCG10AA048	A SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 4 SOLENOID VALVE
	RAT-U3-3054-VLV-HCG10AA301
U3 HCG10AA301	A SIDE SCR ACOUSTIC HORN AIR FILTER DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
	RAT-U3-3055
	U3 B SCR ACOUSTIC HORN SYSTEM
	RAT-U3-3055-AHN
	U3 B SCR ACOUSTIC HORNS - ACCOUSTIC HORNS
	RAT-U3-3055-AHN-HCG20AT002
U3 HCG20AT002	B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 1
	RAT-U3-3055-AHN-HCG20AT003
U3 HCG20AT003	B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 2
	RAT-U3-3055-AHN-HCG20AT004
U3 HCG20AT004	B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 3
	RAT-U3-3055-AHN-HCG20AT005
U3 HCG20AT005	B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 4
	RAT-U3-3055-AHN-HCG20AT007
U3 HCG20AT007	B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 1
	RAT-U3-3055-AHN-HCG20AT008
U3 HCG20AT008	B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 2
	RAT-U3-3055-AHN-HCG20AT009
U3 HCG20AT009	B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 3
	RAT-U3-3055-AHN-HCG20AT010
U3 HCG20AT010	B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 4
	RAT-U3-3055-AHN-HCG20AT012
U3 HCG20AT012	B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 1
	RAT-U3-3055-AHN-HCG20AT013
U3 HCG20AT013	B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 2
	RAT-U3-3055-AHN-HCG20AT014
U3 HCG20AT014	B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 3
	RAT-U3-3055-AHN-HCG20AT015
U3 HCG20AT015	B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 4
	RAT-U3-3055-AHN-HCG20AT017
U3 HCG20AT017	B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 1

RAT-U3-3055-AHN-HCG20AT018
U3 HCG20AT018 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 2
RAT-U3-3055-AHN-HCG20AT019
U3 HCG20AT019 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 3
RAT-U3-3055-AHN-HCG20AT020
U3 HCG20AT020 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 4
RAT-U3-3055-FLT
U3 B SCR ACOUSTIC HORNS - AIR FILTERS
RAT-U3-3055-FLT-HCG20AT001
U3 HCG20AT001 B SIDE SCR ACOUSTIC HORN AIR FILTER
RAT-U3-3055-PWK
U3 B SCR ACOUSTIC HORNS - PIPEWORK
RAT-U3-3055-PWK-HCG20BR103
U3 HCG20BR103 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 1 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR104
U3 HCG20BR104 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 2 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR105
U3 HCG20BR105 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 3 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR106
U3 HCG20BR106 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 4 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR108
U3 HCG20BR108 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 1 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR109
U3 HCG20BR109 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 2 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR110
U3 HCG20BR110 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 3 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR111
U3 HCG20BR111 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 4 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR113
U3 HCG20BR113 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 1 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR114
U3 HCG20BR114 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 2 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR115
U3 HCG20BR115 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 3 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR116
U3 HCG20BR116 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 4 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR118
U3 HCG20BR118 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 1 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR119
U3 HCG20BR119 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 2 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR120
U3 HCG20BR120 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 3 FLEXIBLE
RAT-U3-3055-PWK-HCG20BR121
U3 HCG20BR121 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 4 FLEXIBLE
RAT-U3-3055-TXS
U3 B SCR ACOUSTIC HORNS - TRANSMITTERS
RAT-U3-3055-TXS-HCG20CP001
U3 HCG20CP001 B SIDE SCR ACOUSTIC HORN AIR FILTER DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3055-VLV
U3 B SCR ACOUSTIC HORNS - VALVES
RAT-U3-3055-VLV-HCG01AA303
U3 HCG01AA303 B SIDE SCR ACOUSTIC HORN AIR FILTER DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM

ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA001
U3 HCG20AA001 B SIDE SCR CATALYST LAYERS ACOUSTIC HORN SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA003
U3 HCG20AA003 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA004
U3 HCG20AA004 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN SERVICE AIR SUPPLY PRESSURE REGULATING VALVE
RAT-U3-3055-VLV-HCG20AA005
U3 HCG20AA005 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 1 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA006
U3 HCG20AA006 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 1 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA007
U3 HCG20AA007 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 2 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA008
U3 HCG20AA008 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 2 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA009
U3 HCG20AA009 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 3 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA010
U3 HCG20AA010 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 3 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA011
U3 HCG20AA011 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 4 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA012
U3 HCG20AA012 B SIDE SCR CATALYST LAYER 1 ACOUSTIC HORN 4 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA015
U3 HCG20AA015 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA016
U3 HCG20AA016 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN SERVICE AIR SUPPLY PRESSURE REGULATING VALVE
RAT-U3-3055-VLV-HCG20AA017
U3 HCG20AA017 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 1 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA018
U3 HCG20AA018 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 1 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA019
U3 HCG20AA019 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 2 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA020
U3 HCG20AA020 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 2 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA021
U3 HCG20AA021 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 3 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA022
U3 HCG20AA022 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 3 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA023
U3 HCG20AA023 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 4 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA024
U3 HCG20AA024 B SIDE SCR CATALYST LAYER 2 ACOUSTIC HORN 4 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA027
U3 HCG20AA027 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA028
U3 HCG20AA028 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN SERVICE AIR SUPPLY PRESSURE REGULATING VALVE
RAT-U3-3055-VLV-HCG20AA029
U3 HCG20AA029 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 1 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA030
U3 HCG20AA030 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 1 SOLENOID VALVE

RAT-U3-3055-VLV-HCG20AA031
U3 HCG20AA031 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 2 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA032
U3 HCG20AA032 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 2 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA033
U3 HCG20AA033 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 3 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA034
U3 HCG20AA034 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 3 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA035
U3 HCG20AA035 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 4 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA036
U3 HCG20AA036 B SIDE SCR CATALYST LAYER 3 ACOUSTIC HORN 4 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA039
U3 HCG20AA039 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA040
U3 HCG20AA040 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN SERVICE AIR SUPPLY PRESSURE REGULATING VALVE
RAT-U3-3055-VLV-HCG20AA041
U3 HCG20AA041 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 1 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA042
U3 HCG20AA042 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 1 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA043
U3 HCG20AA043 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 2 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA044
U3 HCG20AA044 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 2 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA045
U3 HCG20AA045 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 3 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA046
U3 HCG20AA046 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 3 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA047
U3 HCG20AA047 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 4 SERVICE AIR SUPPLY ISOLATION VALVE
RAT-U3-3055-VLV-HCG20AA048
U3 HCG20AA048 B SIDE SCR CATALYST LAYER 4 ACOUSTIC HORN 4 SOLENOID VALVE
RAT-U3-3055-VLV-HCG20AA301
U3 HCG20AA301 B SIDE SCR ACOUSTIC HORN AIR FILTER DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-306
U3 SCR GAS ANALYSIS
RAT-U3-3060
U3 SCR GAS ANALYSIS SYSTEMS
RAT-U3-3061
U3 A SCR INLET NOX ANALYSER SKID
RAT-U3-3061-ANA
U3 A SCR INLET NOX ANALYSER SKID - ANALYSERS
RAT-U3-3061-ANA-HNA10CQ010
U3 HNA10CQ010 A SIDE INLET NOX ANALYSER
RAT-U3-3061-ANA-HNA10CQ020
U3 HNA10CQ020 A SIDE INLET O2 ANALYSER
RAT-U3-3061-APN
U3 A SCR INLET NOX ANALYSER SKID - PNEUMATIC ACTUATORS
RAT-U3-3061-APN-HNA10AA012
U3 HNA10AA012 A SIDE INLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE ACTUATOR
RAT-U3-3061-APN-HNA10AA020

U3 HNA10AA020 A SIDE INLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE ACTUATOR
RAT-U3-3061-ESB
U3 A SCR INLET NOX ANALYSER SKID - EMERGENCY STOP BUTTON
RAT-U3-3061-ESB-HNA10AE010
U3 HNA10AE010 A SIDE INLET NOX ANALYSER FAN MOTOR A EMERGENCY STOP BUTTON
RAT-U3-3061-ESB-HNA10AE020
U3 HNA10AE020 A SIDE INLET NOX ANALYSER FAN MOTOR B EMERGENCY STOP BUTTON
RAT-U3-3061-ESB-HNA10AN030
U3 HNA10AN030 A SIDE INLET NOX ANALYSER PURGE AIR FAN MOTOR EMERGENCY STOP BUTTON
RAT-U3-3061-FAN
U3 A SCR INLET NOX ANALYSER SKID - FANS
RAT-U3-3061-FAN-HNA10AN010
U3 HNA10AN010 A SIDE INLET NOX ANALYSER FAN A
RAT-U3-3061-FAN-HNA10AN020
U3 HNA10AN020 A SIDE INLET NOX ANALYSER FAN B
RAT-U3-3061-FAN-HNA10AN030
U3 HNA10AN030 A SIDE INLET NOX ANALYSER PURGE AIR FAN
RAT-U3-3061-FLO
U3 A SCR INLET NOX ANALYSER SKID - FLOW VENTURI
RAT-U3-3061-FLO-HNA10CF021
U3 HNA10CF021 A SIDE INLET NOX ANALYSER INLET FLOW ELEMENT
RAT-U3-3061-FLT
U3 A SCR INLET NOX ANALYSER SKID - FILTERS
RAT-U3-3061-FLT-HNA10AT003
U3 HNA10AT003 A SIDE INLET NOX ANALYSER FAN A BARRIER GAS FILTER REGULATOR
RAT-U3-3061-FLT-HNA10AT004
U3 HNA10AT004 A SIDE INLET NOX ANALYSER FAN B BARRIER GAS FILTER REGULATOR
RAT-U3-3061-HTR
U3 A SCR INLET NOX ANALYSER SKID - HEATER
RAT-U3-3061-HTR-HNA10AN010
U3 HNA10AN010 A SIDE INLET NOX ANALYSER FAN A MOTOR ANTI CONDENSATION HEATER
RAT-U3-3061-HTR-HNA10AN020
U3 HNA10AN020 A SIDE INLET NOX ANALYSER FAN B MOTOR ANTI CONDENSATION HEATER
RAT-U3-3061-LIS
U3 A SCR INLET NOX ANALYSER SKID - LOCAL ISOLATION SWITCH
RAT-U3-3061-LIS-HNA10GS001
U3 HNA10GS001 A SIDE INLET NOX ANALYSER FAN A MOTOR ANTI CONDENSATION HEATER ISOLATOR
RAT-U3-3061-LIS-HNA10GS002
U3 HNA10GS002 A SIDE INLET NOX ANALYSER FAN B MOTOR ANTI CONDENSATION HEATER ISOLATOR
RAT-U3-3061-MTR
U3 A SCR INLET NOX ANALYSER SKID - MOTORS
RAT-U3-3061-MTR-HNA10AE010
U3 HNA10AE010 A SIDE INLET NOX ANALYSER FAN A MOTOR
RAT-U3-3061-MTR-HNA10AE020
U3 HNA10AE020 A SIDE INLET NOX ANALYSER FAN B MOTOR
RAT-U3-3061-MTR-HNA10AE030
U3 HNA10AE030 A SIDE INLET NOX ANALYSER PURGE AIR FAN MOTOR
RAT-U3-3061-PSW
U3 A SCR INLET NOX ANALYSER SKID - PRESSURE SWITCHES
RAT-U3-3061-PSW-HNA10CP004
U3 HNA10CP004 A SIDE INLET NOX ANALYSER PURGE AIR FAN INLET PRESSURE SWITCH
RAT-U3-3061-PWK

U3 A SCR INLET NOX ANALYSER SKID - PIPEWORK
RAT-U3-3061-PWK-HNA10BR011
U3 HNA10BR011 A SIDE INLET NOX ANALYSER FAN A BARRIER GAS SUPPLY FLEXIBLE
RAT-U3-3061-PWK-HNA10BR012
U3 HNA10BR012 A SIDE INLET NOX ANALYSER FAN B BARRIER GAS SUPPLY FLEXIBLE
RAT-U3-3061-PWK-HNA10BR101
U3 HNA10BR101 A SIDE INLET NOX ANALYSER LANCE 1 FLEXIBLE
RAT-U3-3061-PWK-HNA10BR102
U3 HNA10BR102 A SIDE INLET NOX ANALYSER LANCE 2 FLEXIBLE
RAT-U3-3061-PWK-HNA10BR103
U3 HNA10BR103 A SIDE INLET NOX ANALYSER LANCE 3 FLEXIBLE
RAT-U3-3061-PWK-HNA10BR104
U3 HNA10BR104 A SIDE INLET NOX ANALYSER LANCE 4 FLEXIBLE
RAT-U3-3061-PWK-HSA10BR105
U3 HSA10BR105 A SIDE INLET NOX ANALYSER SAMPLE RETURN PIPE FLEXIBLE
RAT-U3-3061-RES
U3 A SCR INLET NOX ANALYSER SKID - THERMISTOR
RAT-U3-3061-RES-HNA10CT021
U3 HNA10CT021 A SIDE INLET NOX ANALYSER FAN A MOTOR THERMISTOR
RAT-U3-3061-RES-HNA10CT022
U3 HNA10CT022 A SIDE INLET NOX ANALYSER FAN B MOTOR THERMISTOR
RAT-U3-3061-RES-HNA10CT030
U3 HNA10CT030 A SIDE INLET NOX ANALYSER PURGE AIR FAN MOTOR THERMISTOR
RAT-U3-3061-RTD
U3 A SCR INLET NOX ANALYSER SKID - RTD - TEMP MEASUREMENT
RAT-U3-3061-RTD-HNA10CT011
U3 HNA10CT011 A SIDE INLET NOX ANALYSER INLET TEMPERATURE ELEMENT
RAT-U3-3061-RTD-HNA10CT020
U3 HNA10CT020 A SIDE INLET ANALYSER PIPEWORK TRACE HEATING TEMPERATURE ELEMENT
RAT-U3-3061-SOL
U3 A SCR INLET NOX ANALYSER SKID - SOLENOIDS
RAT-U3-3061-SOL-HNA10AA012
U3 HNA10AA012 A SIDE INLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE SOLENOID
RAT-U3-3061-SOL-HNA10AA020
U3 HNA10AA020 A SIDE INLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE SOLENOID
RAT-U3-3061-SWT
U3 A SCR INLET NOX ANALYSER SKID - SWITCH
RAT-U3-3061-SWT-HNA10AE010
U3 HNA10AE010 A SIDE INLET NOX ANALYSER FAN A MOTOR CONTACTOR AT 3-N
RAT-U3-3061-SWT-HNA10AE020
U3 HNA10AE020 A SIDE INLET NOX ANALYSER FAN B MOTOR CONTACTOR AT 3-N
RAT-U3-3061-SWT-HNA10AH001
U3 HNA10AH001 A SIDE NOX ANALYSER INLET TRACE HEATING ISOLATOR AT 3-N
RAT-U3-3061-SWT-HNA10AN030
U3 HNA10AN030 A SIDE INLET NOX ANALYSER PURGE AIR FAN MOTOR CONTACTOR AT GSM-H3
RAT-U3-3061-SWX
U3 A SCR INLET NOX ANALYSER SKID - AUXILIARY SWITCHES
RAT-U3-3061-SWX-HNA10CF020
U3 HNA10CF020 A SIDE INLET NOX ANALYSER PURGE AIR FAN FLOW SWITCH 1
RAT-U3-3061-SWX-HNA10CF022
U3 HNA10CF022 A SIDE INLET NOX ANALYSER PURGE AIR FAN FLOW SWITCH 2
RAT-U3-3061-SWX-HNA10CG010

U3 HNA10CG010	A SIDE INLET NOX ANALYSER FAN A OUTLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3061-SWX-HNA10CG012	
U3 HNA10CG012	A SIDE INLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3061-SWX-HNA10CG020	
U3 HNA10CG020	A SIDE INLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3061-SWX-HNA10CG022	
U3 HNA10CG022	A SIDE INLET NOX ANALYSER FAN B OUTLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3061-SWX-HNA10CG030	
U3 HNA10CG030	A SIDE INLET NOX ANALYSER CUVETTE INLET ISOLATION VALVE LIMIT SWITCH
RAT-U3-3061-TXS	
U3 A SCR INLET NOX ANALYSER SKID - TRANSMITTERS	
RAT-U3-3061-TXS-HNA10CP010	
U3 HNA10CP010	A SIDE INLET NOX ANALYSER INLET PRESSURE TRANSMITTER
RAT-U3-3061-TXS-HNA10CP021	
U3 HNA10CP021	A SIDE INLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3061-TXS-HNA10CT011	
U3 HNA10CT011	A SIDE INLET NOX ANALYSER INLET TEMPERATURE TRANSMITTER
RAT-U3-3061-VLV	
U3 A SCR INLET NOX ANALYSER SKID - VALVES	
RAT-U3-3061-VLV-HCG10AA401	
U3 HCG10AA401	A SIDE INLET NOX ANALYSER LANCE PURGE AIR SUPPLY ISOLATION VALVE 1
RAT-U3-3061-VLV-HNA10AA003	
U3 HNA10AA003	A SIDE INLET NOX ANALYSER FAN A BARRIER GAS SUPPLY ISOLATION VALVE
RAT-U3-3061-VLV-HNA10AA004	
U3 HNA10AA004	A SIDE INLET NOX ANALYSER FAN B BARRIER GAS SUPPLY ISOLATION VALVE
RAT-U3-3061-VLV-HNA10AA010	
U3 HNA10AA010	A SIDE INLET NOX ANALYSER FAN A OUTLET SHUT-OFF VALVE
RAT-U3-3061-VLV-HNA10AA012	
U3 HNA10AA012	A SIDE INLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE
RAT-U3-3061-VLV-HNA10AA020	
U3 HNA10AA020	A SIDE INLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE
RAT-U3-3061-VLV-HNA10AA022	
U3 HNA10AA022	A SIDE INLET NOX ANALYSER FAN B OUTLET SHUT-OFF VALVE
RAT-U3-3061-VLV-HNA10AA030	
U3 HNA10AA030	A SIDE INLET NOX ANALYSER CUVETTE INLET ISOLATION VALVE
RAT-U3-3061-VLV-HNA10AA308	
U3 HNA10AA308	A SIDE INLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3061-VLV-HNA10AA309	
U3 HNA10AA309	A SIDE INLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3061-VLV-QEB10AA132	
U3 QEB10AA132	A SIDE INLET NOX ANALYSER INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3061-VLV-QEC10AA003	
U3 QEC10AA003	A SIDE INLET NOX ANALYSER LANCE PURGE AIR SUPPLY ISOLATION VALVE 2
RAT-U3-3062	
U3 B SCR INLET NOX ANALYSER SKID	
RAT-U3-3062-ANA	
U3 B SCR INLET NOX ANALYSER SKID - ANALYSERS	
RAT-U3-3062-ANA-HNA20CQ010	
U3 HNA20CQ010	B SIDE INLET NOX ANALYSER
RAT-U3-3062-ANA-HNA20CQ020	
U3 HNA20CQ020	B SIDE INLET O2 ANALYSER

RAT-U3-3062-APN
U3 B SCR INLET NOX ANALYSER SKID - PNEUMATIC ACTUATORS
RAT-U3-3062-APN-HNA20AA012
U3 HNA20AA012 B SIDE INLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE ACTUATOR
RAT-U3-3062-APN-HNA20AA020
U3 HNA20AA020 B SIDE INLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE ACTUATOR
RAT-U3-3062-ESB
U3 B SCR INLET NOX ANALYSER SKID - EMERGENCY STOP BUTTON
RAT-U3-3062-ESB-HNA20AE010
U3 HNA20AE010 B SIDE INLET NOX ANALYSER FAN A MOTOR EMERGENCY STOP BUTTON
RAT-U3-3062-ESB-HNA20AE020
U3 HNA20AE020 B SIDE INLET NOX ANALYSER FAN B MOTOR EMERGENCY STOP BUTTON
RAT-U3-3062-ESB-HNA20AN030
U3 HNA20AN030 B SIDE INLET NOX ANALYSER PURGE AIR FAN MOTOR EMERGENCY STOP BUTTON
RAT-U3-3062-FAN
U3 B SCR INLET NOX ANALYSER SKID - FANS
RAT-U3-3062-FAN-HNA20AN010
U3 HNA20AN010 B SIDE INLET NOX ANALYSER FAN A
RAT-U3-3062-FAN-HNA20AN020
U3 HNA20AN020 B SIDE INLET NOX ANALYSER FAN B
RAT-U3-3062-FAN-HNA20AN030
U3 HNA20AN030 B SIDE INLET NOX ANALYSER PURGE AIR FAN
RAT-U3-3062-FLO
U3 B SCR INLET NOX ANALYSER SKID - FLOW VENTURI
RAT-U3-3062-FLO-HNA20CF021
U3 HNA20CF021 B SIDE INLET NOX ANALYSER INLET FLOW ELEMENT
RAT-U3-3062-FLT
U3 B SCR INLET NOX ANALYSER SKID - FILTERS
RAT-U3-3062-FLT-HNA20AT003
U3 HNA20AT003 B SIDE INLET NOX ANALYSER FAN A BARRIER GAS FILTER REGULATOR
RAT-U3-3062-FLT-HNA20AT004
U3 HNA20AT004 B SIDE INLET NOX ANALYSER FAN B BARRIER GAS FILTER REGULATOR
RAT-U3-3062-HTR
U3 B SCR INLET NOX ANALYSER SKID - HEATER
RAT-U3-3062-HTR-HNA20AN010
U3 HNA20AN010 B SIDE INLET NOX ANALYSER FAN A MOTOR ANTI CONDENSATION HEATER
RAT-U3-3062-HTR-HNA20AN020
U3 HNA20AN020 B SIDE INLET NOX ANALYSER FAN B MOTOR ANTI CONDENSATION HEATER
RAT-U3-3062-LIS
U3 B SCR INLET NOX ANALYSER SKID - LOCAL ISOLATION SWITCH
RAT-U3-3062-LIS-HNA20GS001
U3 HNA20GS001 B SIDE INLET NOX ANALYSER FAN A MOTOR ANTI CONDENSATION HEATER ISOLATOR
RAT-U3-3062-LIS-HNA20GS002
U3 HNA20GS002 B SIDE INLET NOX ANALYSER FAN B MOTOR ANTI CONDENSATION HEATER ISOLATOR
RAT-U3-3062-MTR
U3 B SCR INLET NOX ANALYSER SKID - MOTORS
RAT-U3-3062-MTR-HNA20AE010
U3 HNA20AE010 B SIDE INLET NOX ANALYSER FAN A MOTOR
RAT-U3-3062-MTR-HNA20AE020
U3 HNA20AE020 B SIDE INLET NOX ANALYSER FAN B MOTOR
RAT-U3-3062-MTR-HNA20AE030
U3 HNA20AE030 B SIDE INLET NOX ANALYSER PURGE AIR FAN MOTOR

RAT-U3-3062-PSW
U3 B SCR INLET NOX ANALYSER SKID - PRESSURE SWITCHES
RAT-U3-3062-PSW-HNA20CP004
U3 HNA20CP004 B SIDE INLET NOX ANALYSER PURGE AIR FAN INLET PRESSURE SWITCH
RAT-U3-3062-PWK
U3 B SCR INLET NOX ANALYSER SKID - PIPEWORK
RAT-U3-3062-PWK-HNA20BR011
U3 HNA20BR011 B SIDE INLET NOX ANALYSER FAN A BARRIER GAS SUPPLY FLEXIBLE
RAT-U3-3062-PWK-HNA20BR012
U3 HNA20BR012 B SIDE INLET NOX ANALYSER FAN B BARRIER GAS SUPPLY FLEXIBLE
RAT-U3-3062-PWK-HNA20BR101
U3 HNA20BR101 B SIDE INLET NOX ANALYSER LANCE 1 FLEXIBLE
RAT-U3-3062-PWK-HNA20BR102
U3 HNA20BR102 B SIDE INLET NOX ANALYSER LANCE 2 FLEXIBLE
RAT-U3-3062-PWK-HNA20BR103
U3 HNA20BR103 B SIDE INLET NOX ANALYSER LANCE 3 FLEXIBLE
RAT-U3-3062-PWK-HNA20BR104
U3 HNA20BR104 B SIDE INLET NOX ANALYSER LANCE 4 FLEXIBLE
RAT-U3-3062-PWK-HSA20BR105
U3 HSA20BR105 B SIDE INLET NOX ANALYSER SAMPLE RETURN PIPE FLEXIBLE
RAT-U3-3062-RES
U3 B SCR INLET NOX ANALYSER SKID - THERMISTOR
RAT-U3-3062-RES-HNA20CT021
U3 HNA20CT021 B SIDE INLET NOX ANALYSER FAN A MOTOR THERMISTOR
RAT-U3-3062-RES-HNA20CT022
U3 HNA20CT022 B SIDE INLET NOX ANALYSER FAN B MOTOR THERMISTOR
RAT-U3-3062-RES-HNA20CT030
U3 HNA20CT030 B SIDE INLET NOX ANALYSER PURGE AIR FAN MOTOR THERMISTOR
RAT-U3-3062-RTD
U3 B SCR INLET NOX ANALYSER SKID - RTD - TEMP MEASUREMENT
RAT-U3-3062-RTD-HNA20CT011
U3 HNA20CT011 B SIDE INLET NOX ANALYSER INLET TEMPERATURE ELEMENT
RAT-U3-3062-RTD-HNA20CT020
U3 HNA20CT020 B SIDE INLET ANALYSER PIPEWORK TRACE HEATING TEMPERATURE ELEMENT
RAT-U3-3062-SOL
U3 B SCR INLET NOX ANALYSER SKID - SOLENOIDS
RAT-U3-3062-SOL-HNA20AA012
U3 HNA20AA012 B SIDE INLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE SOLENOID
RAT-U3-3062-SOL-HNA20AA020
U3 HNA20AA020 B SIDE INLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE SOLENOID
RAT-U3-3062-SWT
U3 B SCR INLET NOX ANALYSER SKID - SWITCH
RAT-U3-3062-SWT-HNA20AE010
U3 HNA20AE010 B SIDE INLET NOX ANALYSER FAN A MOTOR CONTACTOR AT 3-N
RAT-U3-3062-SWT-HNA20AE020
U3 HNA20AE020 B SIDE INLET NOX ANALYSER FAN B MOTOR CONTACTOR AT 3-N
RAT-U3-3062-SWT-HNA20AH001
U3 HNA20AH001 B SIDE NOX ANALYSER INLET TRACE HEATING ISOLATOR AT 3-N
RAT-U3-3062-SWT-HNA20AN030
U3 HNA20AN030 B SIDE INLET NOX ANALYSER PURGE AIR FAN MOTOR CONTACTOR AT GSM-H3
RAT-U3-3062-SWX
U3 B SCR INLET NOX ANALYSER SKID - AUXILIARY SWITCHES

RAT-U3-3062-SWX-HNA20CF020
U3 HNA20CF020 B SIDE INLET NOX ANALYSER PURGE AIR FAN FLOW SWITCH 1
RAT-U3-3062-SWX-HNA20CF022
U3 HNA20CF022 B SIDE INLET NOX ANALYSER PURGE AIR FAN FLOW SWITCH 2
RAT-U3-3062-SWX-HNA20CG010
U3 HNA20CG010 B SIDE INLET NOX ANALYSER FAN A OUTLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3062-SWX-HNA20CG012
U3 HNA20CG012 B SIDE INLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3062-SWX-HNA20CG020
U3 HNA20CG020 B SIDE INLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3062-SWX-HNA20CG022
U3 HNA20CG022 B SIDE INLET NOX ANALYSER FAN B OUTLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3062-SWX-HNA20CG030
U3 HNA20CG030 B SIDE INLET NOX ANALYSER CUVETTE INLET ISOLATION VALVE LIMIT SWITCH
RAT-U3-3062-TXS
U3 B SCR INLET NOX ANALYSER SKID - TRANSMITTERS
RAT-U3-3062-TXS-HNA20CP010
U3 HNA20CP010 B SIDE INLET NOX ANALYSER INLET PRESSURE TRANSMITTER
RAT-U3-3062-TXS-HNA20CP021
U3 HNA20CP021 B SIDE INLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3062-TXS-HNA20CT011
U3 HNA20CT011 B SIDE INLET NOX ANALYSER INLET TEMPERATURE TRANSMITTER
RAT-U3-3062-VLV
U3 B SCR INLET NOX ANALYSER SKID - VALVES
RAT-U3-3062-VLV-HCG20AA401
U3 HCG20AA401 B SIDE INLET NOX ANALYSER LANCE PURGE AIR SUPPLY ISOLATION VALVE 1
RAT-U3-3062-VLV-HNA20AA003
U3 HNA20AA003 B SIDE INLET NOX ANALYSER FAN A BARRIER GAS SUPPLY ISOLATION VALVE
RAT-U3-3062-VLV-HNA20AA004
U3 HNA20AA004 B SIDE INLET NOX ANALYSER FAN B BARRIER GAS SUPPLY ISOLATION VALVE
RAT-U3-3062-VLV-HNA20AA010
U3 HNA20AA010 B SIDE INLET NOX ANALYSER FAN A OUTLET SHUT-OFF VALVE
RAT-U3-3062-VLV-HNA20AA012
U3 HNA20AA012 B SIDE INLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE
RAT-U3-3062-VLV-HNA20AA020
U3 HNA20AA020 B SIDE INLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE
RAT-U3-3062-VLV-HNA20AA022
U3 HNA20AA022 B SIDE INLET NOX ANALYSER FAN B OUTLET SHUT-OFF VALVE
RAT-U3-3062-VLV-HNA20AA030
U3 HNA20AA030 B SIDE INLET NOX ANALYSER CUVETTE INLET ISOLATION VALVE
RAT-U3-3062-VLV-HNA20AA308
U3 HNA20AA308 B SIDE INLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
RAT-U3-3062-VLV-HNA20AA309
U3 HNA20AA309 B SIDE INLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
RAT-U3-3062-VLV-QEB20AA132
U3 QEB20AA132 B SIDE INLET NOX ANALYSER INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3062-VLV-QEC20AA003
U3 QEC20AA003 B SIDE INLET NOX ANALYSER LANCE PURGE AIR SUPPLY ISOLATION VALVE 2
RAT-U3-3063
U3 A SCR OUTLET NOX ANALYSER SKID
RAT-U3-3063-ANA

U3 A SCR OUTLET NOX ANALYSER SKID - ANALYSERS
RAT-U3-3063-ANA-HSA10CQ010
U3 HSA10CQ010 A SIDE OUTLET NOX ANALYSER
RAT-U3-3063-ANA-HSA10CQ020
U3 HSA10CQ020 A SIDE OUTLET O2 ANALYSER
RAT-U3-3063-APN
U3 A SCR OUTLET NOX ANALYSER SKID - PNEUMATIC ACTUATORS
RAT-U3-3063-APN-HSA10AA012
U3 HSA10AA012 A SIDE OUTLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE ACTUATOR
RAT-U3-3063-APN-HSA10AA020
U3 HSA10AA020 A SIDE OUTLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE ACTUATOR
RAT-U3-3063-ESB
U3 A SCR OUTLET NOX ANALYSER SKID - EMERGENCY STOP BUTTON
RAT-U3-3063-ESB-HSA10AE010
U3 HSA10AE010 A SIDE OUTLET NOX ANALYSER FAN MOTOR A EMERGENCY STOP BUTTON
RAT-U3-3063-ESB-HSA10AE020
U3 HSA10AE020 A SIDE OUTLET NOX ANALYSER FAN MOTOR B EMERGENCY STOP BUTTON
RAT-U3-3063-ESB-HSA10AN030
U3 HSA10AN030 A SIDE OUTLET NOX ANALYSER PURGE AIR FAN MOTOR EMERGENCY STOP BUTTON
RAT-U3-3063-FAN
U3 A SCR OUTLET NOX ANALYSER SKID - FANS
RAT-U3-3063-FAN-HSA10AN010
U3 HSA10AN010 A SIDE OUTLET NOX ANALYSER FAN A
RAT-U3-3063-FAN-HSA10AN020
U3 HSA10AN020 A SIDE OUTLET NOX ANALYSER FAN B
RAT-U3-3063-FAN-HSA10AN030
U3 HSA10AN030 A SIDE OUTLET NOX ANALYSER PURGE AIR FAN
RAT-U3-3063-FLO
U3 SCR A OUTLET NOX ANALYSER SKID - FLOW VENTURI
RAT-U3-3063-FLO-HSA10CF021
U3 HSA10CF021 A SIDE OUTLET NOX ANALYSER INLET FLOW ELEMENT
RAT-U3-3063-FLT
U3 A SCR OUTLET NOX ANALYSER SKID - FILTER
RAT-U3-3063-FLT-HSA10AT003
U3 HSA10AT003 A SIDE OUTLET NOX ANALYSER FAN A BARRIER GAS FILTER REGULATOR
RAT-U3-3063-FLT-HSA10AT004
U3 HSA10AT004 A SIDE OUTLET NOX ANALYSER FAN B BARRIER GAS FILTER REGULATOR
RAT-U3-3063-HTR
U3 A SCR OUTLET NOX ANALYSER SKID - HEATER
RAT-U3-3063-HTR-HSA10AN010
U3 HSA10AN010 A SIDE OUTLET NOX ANALYSER FAN A MOTOR ANTI CONDENSATION HEATER
RAT-U3-3063-HTR-HSA10AN020
U3 HSA10AN020 A SIDE OUTLET NOX ANALYSER FAN B MOTOR ANTI CONDENSATION HEATER
RAT-U3-3063-LIS
U3 A SCR OUTLET NOX ANALYSER SKID - LOCAL ISOLATION SWITCH
RAT-U3-3063-LIS-HSA10GS001
U3 HSA10GS001 A SIDE OUTLET NOX ANALYSER FAN A MOTOR ANTI CONDENSATION HEATER ISOLATOR
RAT-U3-3063-LIS-HSA10GS002
U3 HSA10GS002 A SIDE OUTLET NOX ANALYSER FAN B MOTOR ANTI CONDENSATION HEATER ISOLATOR
RAT-U3-3063-MTR
U3 A SCR OUTLET NOX ANALYSER SKID - MOTORS
RAT-U3-3063-MTR-HSA10AE010

U3 HSA10AE010 A SIDE OUTLET NOX ANALYSER FAN A MOTOR
RAT-U3-3063-MTR-HSA10AE020
U3 HSA10AE020 A SIDE OUTLET NOX ANALYSER FAN B MOTOR
RAT-U3-3063-MTR-HSA10AE030
U3 HSA10AE030 A SIDE OUTLET NOX ANALYSER PURGE AIR FAN MOTOR
RAT-U3-3063-PSW
U3 A SCR OUTLET NOX ANALYSER SKID - PRESSURE SWITCHES
RAT-U3-3063-PSW-HSA10CP001
U3 HSA10CP001 A SIDE OUTLET NOX ANALYSER PURGE AIR FAN INLET PRESSURE SWITCH
RAT-U3-3063-PWK
U3 A SCR OUTLET NOX ANALYSER SKID - PIPEWORK
RAT-U3-3063-PWK-HSA10BR013
U3 HSA10BR013 A SIDE OUTLET NOX ANALYSER FAN A BARRIER GAS SUPPLY FLEXIBLE
RAT-U3-3063-PWK-HSA10BR014
U3 HSA10BR014 A SIDE OUTLET NOX ANALYSER FAN B BARRIER GAS SUPPLY FLEXIBLE
RAT-U3-3063-PWK-HSA10BR106
U3 HSA10BR106 A SIDE OUTLET NOX ANALYSER LANCE 1 FLEXIBLE
RAT-U3-3063-PWK-HSA10BR107
U3 HSA10BR107 A SIDE OUTLET NOX ANALYSER LANCE 2 FLEXIBLE
RAT-U3-3063-PWK-HSA10BR108
U3 HSA10BR108 A SIDE OUTLET NOX ANALYSER LANCE 3 FLEXIBLE
RAT-U3-3063-PWK-HSA10BR109
U3 HSA10BR109 A SIDE OUTLET NOX ANALYSER LANCE 4 FLEXIBLE
RAT-U3-3063-PWK-HSA10BR110
U3 HSA10BR110 A SIDE OUTLET NOX ANALYSER SAMPLE RETURN PIPE FLEXIBLE
RAT-U3-3063-RES
U3 A SCR OUTLET NOX ANALYSER SKID - THERMISTOR
RAT-U3-3063-RES-HSA10CT023
U3 HSA10CT023 A SIDE OUTLET NOX ANALYSER FAN A MOTOR THERMISTOR
RAT-U3-3063-RES-HSA10CT024
U3 HSA10CT024 A SIDE OUTLET NOX ANALYSER FAN B MOTOR THERMISTOR
RAT-U3-3063-RES-HSA10CT030
U3 HSA10CT030 A SIDE OUTLET NOX ANALYSER PURGE AIR FAN MOTOR THERMISTOR
RAT-U3-3063-RTD
U3 A SCR OUTLET NOX ANALYSER SKID - RTD - TEMP MEASUREMENT
RAT-U3-3063-RTD-HSA10CT011
U3 HSA10CT011 A SIDE OUTLET NOX ANALYSER INLET TEMPERATURE ELEMENT
RAT-U3-3063-RTD-HSA10CT020
U3 HSA10CT020 A SIDE OUTLET ANALYSER PIPEWORK TRACE HEATING TEMPERATURE ELEMENT
RAT-U3-3063-SOL
U3 A SCR OUTLET NOX ANALYSER SKID - SOLENOIDS
RAT-U3-3063-SOL-HSA10AA012
U3 HSA10AA012 A SIDE OUTLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE SOLENOID
RAT-U3-3063-SOL-HSA10AA020
U3 HSA10AA020 A SIDE OUTLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE SOLENOID
RAT-U3-3063-SWT
U3 A SCR OUTLET NOX ANALYSER SKID - SWITCH
RAT-U3-3063-SWT-HSA10AE010
U3 HSA10AE010 A SIDE OUTLET NOX ANALYSER FAN A MOTOR CONTACTOR AT 3-N
RAT-U3-3063-SWT-HSA10AE020
U3 HSA10AE020 A SIDE OUTLET NOX ANALYSER FAN B MOTOR CONTACTOR AT 3-N
RAT-U3-3063-SWT-HSA10AH001

U3 HSA10AH001	A SIDE NOX ANALYSER OUTLET TRACE HEATING ISOLATOR AT 3-N
	RAT-U3-3063-SWT-HSA10AN030
U3 HSA10AN030	A SIDE OUTLET NOX ANALYSER PURGE AIR FAN MOTOR CONTACTOR AT GSM-H3
	RAT-U3-3063-SWX
U3 A SCR OUTLET NOX ANALYSER SKID - AUXILIARY SWITCHES	
	RAT-U3-3063-SWX-HSA10CF020
U3 HSA10CF020	A SIDE OUTLET NOX ANALYSER PURGE AIR FAN FLOW SWITCH 1
	RAT-U3-3063-SWX-HSA10CF022
U3 HSA10CF022	A SIDE OUTLET NOX ANALYSER PURGE AIR FAN FLOW SWITCH 2
	RAT-U3-3063-SWX-HSA10CG010
U3 HSA10CG010	A SIDE OUTLET NOX ANALYSER FAN A OUTLET SHUT-OFF VALVE LIMIT SWITCH
	RAT-U3-3063-SWX-HSA10CG012
U3 HSA10CG012	A SIDE OUTLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE LIMIT SWITCH
	RAT-U3-3063-SWX-HSA10CG020
U3 HSA10CG020	A SIDE OUTLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE LIMIT SWITCH
	RAT-U3-3063-SWX-HSA10CG022
U3 HSA10CG022	A SIDE OUTLET NOX ANALYSER FAN B OUTLET SHUT-OFF VALVE LIMIT SWITCH
	RAT-U3-3063-SWX-HSA10CG030
U3 HSA10CG030	A SIDE OUTLET NOX ANALYSER CUVETTE INLET ISOLATION VALVE LIMIT SWITCH
	RAT-U3-3063-TXS
U3 A SCR OUTLET NOX ANALYSER SKID - TRANSMITTERS	
	RAT-U3-3063-TXS-HSA10CP010
U3 HSA10CP010	A SIDE OUTLET NOX ANALYSER INLET PRESSURE TRANSMITTER
	RAT-U3-3063-TXS-HSA10CP021
U3 HSA10CP021	A SIDE OUTLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER
	RAT-U3-3063-TXS-HSA10CT011
U3 HSA10CT011	A SIDE OUTLET NOX ANALYSER INLET TEMPERATURE TRANSMITTER
	RAT-U3-3063-VLV
U3 A SCR OUTLET NOX ANALYSER SKID - VALVES	
	RAT-U3-3063-VLV-HCG10AA402
U3 HCG10AA402	A SIDE OUTLET NOX ANALYSER LANCE PURGE AIR SUPPLY ISOLATION VALVE 1
	RAT-U3-3063-VLV-HSA10AA003
U3 HSA10AA003	A SIDE OUTLET NOX ANALYSER FAN A BARRIER GAS SUPPLY ISOLATION VALVE
	RAT-U3-3063-VLV-HSA10AA004
U3 HSA10AA004	A SIDE OUTLET NOX ANALYSER FAN B BARRIER GAS SUPPLY ISOLATION VALVE
	RAT-U3-3063-VLV-HSA10AA010
U3 HSA10AA010	A SIDE OUTLET NOX ANALYSER FAN A OUTLET SHUT-OFF VALVE
	RAT-U3-3063-VLV-HSA10AA012
U3 HSA10AA012	A SIDE OUTLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE
	RAT-U3-3063-VLV-HSA10AA020
U3 HSA10AA020	A SIDE OUTLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE
	RAT-U3-3063-VLV-HSA10AA022
U3 HSA10AA022	A SIDE OUTLET NOX ANALYSER FAN B OUTLET SHUT-OFF VALVE
	RAT-U3-3063-VLV-HSA10AA030
U3 HSA10AA030	A SIDE OUTLET NOX ANALYSER CUVETTE INLET ISOLATION VALVE
	RAT-U3-3063-VLV-HSA10AA308
U3 HSA10AA308	A SIDE OUTLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER UPSTREAM ISOLATION VALVE
	RAT-U3-3063-VLV-HSA10AA309
U3 HSA10AA309	A SIDE OUTLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER DOWNSTREAM ISOLATION VALVE
	RAT-U3-3063-VLV-QEB10AA133
U3 QEB10AA133	A SIDE OUTLET NOX ANALYSER INSTRUMENT AIR SUPPLY ISOLATION VALVE

RAT-U3-3063-VLV-QEC10AA004
U3 QEC10AA004 A SIDE OUTLET NOX ANALYSER LANCE PURGE AIR SUPPLY ISOLATION VALVE 2
RAT-U3-3064
U3 B SCR OUTLET NOX ANALYSER SKID
RAT-U3-3064-ANA
U3 B SCR OUTLET NOX ANALYSER SKID - ANALYSERS
RAT-U3-3064-ANA-HSA20CQ010
U3 HSA20CQ010 B SIDE OUTLET NOX ANALYSER
RAT-U3-3064-ANA-HSA20CQ020
U3 HSA20CQ020 B SIDE OUTLET O2 ANALYSER
RAT-U3-3064-APN
U3 B SCR OUTLET NOX ANALYSER SKID - PNEUMATIC ACTUATORS
RAT-U3-3064-APN-HSA20AA012
U3 HSA20AA012 B SIDE OUTLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE ACTUATOR
RAT-U3-3064-APN-HSA20AA020
U3 HSA20AA020 B SIDE OUTLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE ACTUATOR
RAT-U3-3064-ESB
U3 B SCR OUTLET NOX ANALYSER SKID - EMERGENCY STOP BUTTON
RAT-U3-3064-ESB-HSA20AE010
U3 HSA20AE010 B SIDE INLET NOX ANALYSER FAN A MOTOR EMERGENCY STOP BUTTON
RAT-U3-3064-ESB-HSA20AE020
U3 HSA20AE020 B SIDE INLET NOX ANALYSER FAN B MOTOR EMERGENCY STOP BUTTON
RAT-U3-3064-ESB-HSA20AN030
U3 HSA20AN030 B SIDE OUTLET NOX ANALYSER PURGE AIR FAN MOTOR EMERGENCY STOP BUTTON
RAT-U3-3064-FAN
U3 B SCR OUTLET NOX ANALYSER SKID - FANS
RAT-U3-3064-FAN-HSA20AN010
U3 HSA20AN010 B SIDE OUTLET NOX ANALYSER FAN A
RAT-U3-3064-FAN-HSA20AN020
U3 HSA20AN020 B SIDE OUTLET NOX ANALYSER FAN B
RAT-U3-3064-FAN-HSA20AN030
U3 HSA20AN030 B SIDE OUTLET NOX ANALYSER PURGE AIR FAN
RAT-U3-3064-FLO
U3 B SCR OUTLET NOX ANALYSER SKID - FLOW VENTURI
RAT-U3-3064-FLO-HSA20CF021
U3 HSA20CF021 B SIDE OUTLET NOX ANALYSER INLET FLOW ELEMENT
RAT-U3-3064-FLT
U3 B SCR OUTLET NOX ANALYSER SKID - FILTERS
RAT-U3-3064-FLT-HSA20AT003
U3 HSA20AT003 B SIDE OUTLET NOX ANALYSER FAN A BARRIER GAS FILTER REGULATOR
RAT-U3-3064-FLT-HSA20AT004
U3 HSA20AT004 B SIDE OUTLET NOX ANALYSER FAN B BARRIER GAS FILTER REGULATOR
RAT-U3-3064-HTR
U3 B SCR OUTLET NOX ANALYSER SKID - HEATER
RAT-U3-3064-HTR-HSA20AN010
U3 HSA20AN010 B SIDE OUTLET NOX ANALYSER FAN A MOTOR ANTI CONDENSATION HEATER
RAT-U3-3064-HTR-HSA20AN020
U3 HSA20AN020 B SIDE OUTLET NOX ANALYSER FAN B MOTOR ANTI CONDENSATION HEATER
RAT-U3-3064-LIS
U3 B SCR OUTLET NOX ANALYSER SKID - LOCAL ISOLATION SWITCH
RAT-U3-3064-LIS-HSA20GS001
U3 HSA20GS001 B SIDE OUTLET NOX ANALYSER FAN A MOTOR ANTI CONDENSATION HEATER ISOLATOR

RAT-U3-3064-LIS-HSA20GS002
U3 HSA20GS002 B SIDE OUTLET NOX ANALYSER FAN B MOTOR ANTI CONDENSATION HEATER ISOLATOR
RAT-U3-3064-MTR
U3 B SCR OUTLET NOX ANALYSER SKID - MOTORS
RAT-U3-3064-MTR-HSA20AE010
U3 HSA20AE010 B SIDE OUTLET NOX ANALYSER FAN A MOTOR
RAT-U3-3064-MTR-HSA20AE020
U3 HSA20AE020 B SIDE OUTLET NOX ANALYSER FAN B MOTOR
RAT-U3-3064-MTR-HSA20AE030
U3 HSA20AE030 B SIDE OUTLET NOX ANALYSER PURGE AIR FAN MOTOR
RAT-U3-3064-PSW
U3 SCR B OUTLET NOX ANALYSER SKID - PRESSURE SWITCHES
RAT-U3-3064-PSW-HSA20CP001
U3 HSA20CP001 B SIDE OUTLET NOX ANALYSER PURGE AIR FAN INLET PRESSURE SWITCH
RAT-U3-3064-PWK
U3 B SCR OUTLET NOX ANALYSER SKID - PIPEWORK
RAT-U3-3064-PWK-HSA20BR013
U3 HSA20BR013 B SIDE OUTLET NOX ANALYSER FAN A BARRIER GAS SUPPLY FLEXIBLE
RAT-U3-3064-PWK-HSA20BR014
U3 HSA20BR014 B SIDE OUTLET NOX ANALYSER FAN B BARRIER GAS SUPPLY FLEXIBLE
RAT-U3-3064-PWK-HSA20BR106
U3 HSA20BR106 B SIDE OUTLET NOX ANALYSER LANCE 1 FLEXIBLE
RAT-U3-3064-PWK-HSA20BR107
U3 HSA20BR107 B SIDE OUTLET NOX ANALYSER LANCE 2 FLEXIBLE
RAT-U3-3064-PWK-HSA20BR108
U3 HSA20BR108 B SIDE OUTLET NOX ANALYSER LANCE 3 FLEXIBLE
RAT-U3-3064-PWK-HSA20BR109
U3 HSA20BR109 B SIDE OUTLET NOX ANALYSER LANCE 4 FLEXIBLE
RAT-U3-3064-PWK-HSA20BR110
U3 HSA20BR110 B SIDE OUTLET NOX ANALYSER SAMPLE RETURN PIPE FLEXIBLE
RAT-U3-3064-RES
U3 B SCR OUTLET NOX ANALYSER SKID - THERMISTOR
RAT-U3-3064-RES-HSA20CT023
U3 HSA20CT023 B SIDE OUTLET NOX ANALYSER FAN A MOTOR THERMISTOR
RAT-U3-3064-RES-HSA20CT024
U3 HSA20CT024 B SIDE OUTLET NOX ANALYSER FAN B MOTOR THERMISTOR
RAT-U3-3064-RES-HSA20CT030
U3 HSA20CT030 B SIDE OUTLET NOX ANALYSER PURGE AIR FAN MOTOR THERMISTOR
RAT-U3-3064-RTD
U3 B SCR OUTLET NOX ANALYSER SKID - RTD - TEMP MEASUREMENT
RAT-U3-3064-RTD-HSA20CT011
U3 HSA20CT011 B SIDE OUTLET NOX ANALYSER INLET TEMPERATURE ELEMENT
RAT-U3-3064-RTD-HSA20CT020
U3 HSA20CT020 B SIDE OUTLET ANALYSER PIPEWORK TRACE HEATING TEMPERATURE ELEMENT
RAT-U3-3064-SOL
U3 B SCR OUTLET NOX ANALYSER SKID - SOLENOIDS
RAT-U3-3064-SOL-HSA20AA012
U3 HSA20AA012 B SIDE OUTLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE SOLENOID
RAT-U3-3064-SOL-HSA20AA020
U3 HSA20AA020 B SIDE OUTLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE SOLENOID
RAT-U3-3064-SWT
U3 B SCR OUTLET NOX ANALYSER SKID - SWITCH

RAT-U3-3064-SWT-HSA20AE010
U3 HSA20AE010 B SIDE OUTLET NOX ANALYSER FAN A MOTOR CONTACTOR AT 3-N
RAT-U3-3064-SWT-HSA20AE020
U3 HSA20AE020 B SIDE OUTLET NOX ANALYSER FAN B MOTOR CONTACTOR AT 3-N
RAT-U3-3064-SWT-HSA20AH001
U3 HSA20AH001 B SIDE NOX ANALYSER OUTLET TRACE HEATING ISOLATOR AT 3-N
RAT-U3-3064-SWT-HSA20AN030
U3 HSA20AN030 B SIDE OUTLET NOX ANALYSER PURGE AIR FAN MOTOR CONTACTOR AT GSM-H3
RAT-U3-3064-SWX
U3 B SCR OUTLET NOX ANALYSER SKID - AUXILIARY SWITCHES
RAT-U3-3064-SWX-HSA20CF020
U3 HSA20CF020 B SIDE OUTLET NOX ANALYSER PURGE AIR FAN FLOW SWITCH 1
RAT-U3-3064-SWX-HSA20CF022
U3 HSA20CF022 B SIDE OUTLET NOX ANALYSER PURGE AIR FAN FLOW SWITCH 2
RAT-U3-3064-SWX-HSA20CG010
U3 HSA20CG010 B SIDE OUTLET NOX ANALYSER FAN A OUTLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3064-SWX-HSA20CG012
U3 HSA20CG012 B SIDE OUTLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3064-SWX-HSA20CG020
U3 HSA20CG020 B SIDE OUTLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3064-SWX-HSA20CG022
U3 HSA20CG022 B SIDE OUTLET NOX ANALYSER FAN B OUTLET SHUT-OFF VALVE LIMIT SWITCH
RAT-U3-3064-SWX-HSA20CG030
U3 HSA20CG030 B SIDE OUTLET NOX ANALYSER CUVETTE INLET ISOLATION VALVE LIMIT SWITCH
RAT-U3-3064-TXS
U3 B SCR OUTLET NOX ANALYSER SKID - TRANSMITTERS
RAT-U3-3064-TXS-HSA20CP010
U3 HSA20CP010 B SIDE OUTLET NOX ANALYSER INLET PRESSURE TRANSMITTER
RAT-U3-3064-TXS-HSA20CP021
U3 HSA20CP021 B SIDE OUTLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER
RAT-U3-3064-TXS-HSA20CT011
U3 HSA20CT011 B SIDE OUTLET NOX ANALYSER INLET TEMPERATURE TRANSMITTER
RAT-U3-3064-VLV
U3 B SCR OUTLET NOX ANALYSER SKID - VALVES
RAT-U3-3064-VLV-HCG20AA402
U3 HCG20AA402 B SIDE OUTLET NOX ANALYSER LANCE PURGE AIR SUPPLY ISOLATION VALVE 1
RAT-U3-3064-VLV-HSA20AA003
U3 HSA20AA003 B SIDE OUTLET NOX ANALYSER FAN A BARRIER GAS SUPPLY ISOLATION VALVE
RAT-U3-3064-VLV-HSA20AA004
U3 HSA20AA004 B SIDE OUTLET NOX ANALYSER FAN B BARRIER GAS SUPPLY ISOLATION VALVE
RAT-U3-3064-VLV-HSA20AA010
U3 HSA20AA010 B SIDE OUTLET NOX ANALYSER FAN A OUTLET SHUT-OFF VALVE
RAT-U3-3064-VLV-HSA20AA012
U3 HSA20AA012 B SIDE OUTLET NOX ANALYSER FAN A INLET SHUT-OFF VALVE
RAT-U3-3064-VLV-HSA20AA020
U3 HSA20AA020 B SIDE OUTLET NOX ANALYSER FAN B INLET SHUT-OFF VALVE
RAT-U3-3064-VLV-HSA20AA022
U3 HSA20AA022 B SIDE OUTLET NOX ANALYSER FAN B OUTLET SHUT-OFF VALVE
RAT-U3-3064-VLV-HSA20AA030
U3 HSA20AA030 B SIDE OUTLET NOX ANALYSER CUVETTE INLET ISOLATION VALVE
RAT-U3-3064-VLV-HSA20AA308
U3 HSA20AA308 B SIDE OUTLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER

UPSTREAM ISOLATION VALVE
RAT-U3-3064-VLV-HSA20AA309
U3 HSA20AA309 B SIDE OUTLET NOX ANALYSER INLET FLOW ELEMENT DIFFERENTIAL PRESSURE TRANSMITTER
DOWNSTREAM ISOLATION VALVE
RAT-U3-3064-VLV-QEB20AA133
U3 QEB20AA133 B SIDE OUTLET NOX ANALYSER INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3064-VLV-QEC20AA004
U3 QEC20AA004 B SIDE OUTLET NOX ANALYSER LANCE PURGE AIR SUPPLY ISOLATION VALVE 2
RAT-U3-308
U3 SCR REACTOR STRUCTURE
RAT-U3-3080
U3 SCR REACTOR COMMON STRUCTURE
RAT-U3-3080-STC
U3 SCR REACTOR - COMMON STRUCTURE
RAT-U3-3081
U3 A SCR REACTOR STRUCTURE
RAT-U3-3081-STC
U3 A SCR REACTOR - STRUCTURE
RAT-U3-3082
U3 B SCR REACTOR STRUCTURE
RAT-U3-3082-STC
U3 B SCR REACTOR - STRUCTURE
RAT-U3-3210-ACT
U3 BOILER ECONOMISER - ACTUATORS
RAT-U3-3210-ACT-HAC01AA401
U3 HAC01AA401 ECONOMISER FEEDWATER SYSTEM DRAIN ISOLATION VALVE ACTUATOR
RAT-U3-3210-LIS
U3 BOILER ECONOMISER - LOCAL ISOLATING SWITCH
RAT-U3-3210-LIS-HAC01GS401
U3 HAC01GS401 ECONOMISER FEEDWATER SYSTEM DRAIN ISOLATION VALVE ISOLATOR
RAT-U3-3210-PWK
U3 BOILER ECONOMISER - PIPEWORK
RAT-U3-3210-PWK-HAC01BR503
U3 HAC01BR503 ECONOMISER COMMON DRAIN TUNDISH
RAT-U3-3210-SWX
U3 BOILER ECONOMISER - AUXILIARY SWITCHES
RAT-U3-3210-SWX-HAC01CG401
U3 HAC01CG401 ECONOMISER FEEDWATER SYSTEM DRAIN ISOLATION VALVE LIMIT SWITCH
RAT-U3-3210-VLV-HAC01AA401
U3 HAC01AA401 ECONOMISER FEEDWATER SYSTEM DRAIN ISOLATION VALVE
RAT-U3-3210-VLV-HAC01AA501
U3 HAC01AA501 ECONOMISER FEEDWATER SYSTEM VENT ISOLATION VALVE 1
RAT-U3-3210-VLV-HAC01AA502
U3 HAC01AA502 ECONOMISER FEEDWATER SYSTEM VENT ISOLATION VALVE 2
RAT-U3-3211
U3 BOILER PRIMARY ECONOMISER
RAT-U3-3211-ECO
U3 BOILER PRIMARY ECONOMISER - ECONOMISER
RAT-U3-3211-ECO-HSD10AC001
U3 HSD10AC001 A SIDE PRIMARY ECONOMISER BANK
RAT-U3-3211-ECO-HSD20AC001
U3 HSD20AC001 B SIDE PRIMARY ECONOMISER BANK
RAT-U3-3211-PGS

U3 BOILER PRIMARY ECONOMISER - PRESSURE GAUGES
RAT-U3-3211-PGS-HAC10CP001
U3 HAC10CP001 A SIDE PRIMARY ECONOMISER FEED WATER SUPPLY PRESSURE INDICATOR
RAT-U3-3211-PGS-HAC20CP001
U3 HAC20CP001 B SIDE PRIMARY ECONOMISER FEED WATER SUPPLY PRESSURE INDICATOR
RAT-U3-3211-RTD
U3 BOILER PRIMARY ECONOMISER - RTD - TEMP MEASUREMENT
RAT-U3-3211-RTD-HAC10CT001
U3 HAC10CT001 A SIDE PRIMARY ECONOMISER FEED WATER SUPPLY TEMPERATURE ELEMENT
RAT-U3-3211-RTD-HAC20CT001
U3 HAC20CT001 B SIDE PRIMARY ECONOMISER FEED WATER SUPPLY TEMPERATURE ELEMENT
RAT-U3-3211-SWT
U3 BOILER PRIMARY ECONOMISER - SWITCH
RAT-U3-3211-SWT-HSJ01AH001
U3 HSJ01AH001 ECONOMISER DRAINS TRACE HEATING 1 ISOLATOR AT GSM-H3
RAT-U3-3211-SWT-HSJ01AH002
U3 HSJ01AH002 ECONOMISER DRAINS TRACE HEATING 2 ISOLATOR AT GSM-H3
RAT-U3-3211-TXS
U3 BOILER PRIMARY ECONOMISER - TRANSMITTERS
RAT-U3-3211-TXS-HAC10CT001
U3 HAC10CT001 A SIDE PRIMARY ECONOMISER FEED WATER SUPPLY TEMPERATURE TRANSMITTER
RAT-U3-3211-TXS-HAC20CT001
U3 HAC20CT001 B SIDE PRIMARY ECONOMISER FEED WATER SUPPLY TEMPERATURE TRANSMITTER
RAT-U3-3211-VLV
U3 BOILER PRIMARY ECONOMISER - VALVES
RAT-U3-3211-VLV-HAC10AA301
U3 HAC10AA301 A SIDE PRIMARY ECONOMISER FEEDWATER INLET TEST PORT ISOLATION VALVE 1
RAT-U3-3211-VLV-HAC10AA302
U3 HAC10AA302 A SIDE PRIMARY ECONOMISER FEEDWATER INLET TEST PORT ISOLATION VALVE 2
RAT-U3-3211-VLV-HAC10AA303
U3 HAC10AA303 A SIDE PRIMARY ECONOMISER FEEDWATER INLET PRESSURE INDICATOR ISOLATION VALVE 1
RAT-U3-3211-VLV-HAC10AA304
U3 HAC10AA304 A SIDE PRIMARY ECONOMISER FEEDWATER INLET PRESSURE INDICATOR ISOLATION VALVE 2
RAT-U3-3211-VLV-HAC20AA301
U3 HAC20AA301 B SIDE PRIMARY ECONOMISER FEEDWATER INLET TEST PORT ISOLATION VALVE 1
RAT-U3-3211-VLV-HAC20AA302
U3 HAC20AA302 B SIDE PRIMARY ECONOMISER FEEDWATER INLET TEST PORT ISOLATION VALVE 2
RAT-U3-3211-VLV-HAC20AA303
U3 HAC20AA303 B SIDE PRIMARY ECONOMISER FEEDWATER INLET PRESSURE INDICATOR ISOLATION VALVE 1
RAT-U3-3211-VLV-HAC20AA304
U3 HAC20AA304 B SIDE PRIMARY ECONOMISER FEEDWATER INLET PRESSURE INDICATOR ISOLATION VALVE 2
RAT-U3-3212
U3 BOILER SECONDARY ECONOMISER
RAT-U3-3212-ECO
U3 BOILER SECONDARY ECONOMISER - ECONOMISER
RAT-U3-3212-ECO-HAC10AC001
U3 HAC10AC001 A SIDE SECONDARY ECONOMISER BANK
RAT-U3-3212-ECO-HAC20AC001
U3 HAC20AC001 B SIDE SECONDARY ECONOMISER BANK
RAT-U3-3212-VLV
U3 BOILER SECONDARY ECONOMISER - VALVES
RAT-U3-3212-VLV-HAC10AA309

U3 HAC10AA309	A SIDE SECONDARY ECONOMISER FEEDWATER INLET TEST PORT ISOLATION VALVE 1
	RAT-U3-3212-VLV-HAC10AA310
U3 HAC10AA310	A SIDE SECONDARY ECONOMISER FEEDWATER INLET TEST PORT ISOLATION VALVE 2
	RAT-U3-3212-VLV-HAC20AA309
U3 HAC20AA309	B SIDE SECONDARY ECONOMISER FEEDWATER INLET TEST PORT ISOLATION VALVE 1
	RAT-U3-3212-VLV-HAC20AA310
U3 HAC20AA310	B SIDE SECONDARY ECONOMISER FEEDWATER INLET TEST PORT ISOLATION VALVE 2
	RAT-U3-3410-RTD
	U3 FD FAN SYSTEM INCLUDING INLET & DISTRIBUTION DUCTING - RTD - TEMP MEASUREMENT
	RAT-U3-3410-RTD-HLA01CT013
U3 HLA01CT013	FD FAN A INLET TEMPERATURE MEASUREMENT ELEMENT 1
	RAT-U3-3410-RTD-HLA01CT014
U3 HLA01CT014	FD FAN A INLET TEMPERATURE MEASUREMENT ELEMENT 2
	RAT-U3-3410-RTD-HLA01CT015
U3 HLA01CT015	FD FAN B INLET TEMPERATURE MEASUREMENT ELEMENT 1
	RAT-U3-3410-RTD-HLA01CT016
U3 HLA01CT016	FD FAN B INLET TEMPERATURE MEASUREMENT ELEMENT 2
	RAT-U3-3410-RTD-HLA01CT017
U3 HLA01CT017	FD FAN A INLET TEMPERATURE MEASUREMENT ELEMENT 3
	RAT-U3-3410-RTD-HLA01CT018
U3 HLA01CT018	FD FAN A INLET TEMPERATURE MEASUREMENT ELEMENT 4
	RAT-U3-3410-RTD-HLA01CT019
U3 HLA01CT019	FD FAN B INLET TEMPERATURE MEASUREMENT ELEMENT 3
	RAT-U3-3410-RTD-HLA01CT020
U3 HLA01CT020	FD FAN B INLET TEMPERATURE MEASUREMENT ELEMENT 4
	RAT-U3-3410-TXS-HLA01CT013
U3 HLA01CT013	FD FAN A INLET TEMPERATURE TRANSMITTER 1
	RAT-U3-3410-TXS-HLA01CT014
U3 HLA01CT014	FD FAN A INLET TEMPERATURE TRANSMITTER 2
	RAT-U3-3410-TXS-HLA01CT015
U3 HLA01CT015	FD FAN B INLET TEMPERATURE TRANSMITTER 1
	RAT-U3-3410-TXS-HLA01CT016
U3 HLA01CT016	FD FAN B INLET TEMPERATURE TRANSMITTER 2
	RAT-U3-3410-TXS-HLA01CT017
U3 HLA01CT017	FD FAN A INLET TEMPERATURE TRANSMITTER 3
	RAT-U3-3410-TXS-HLA01CT018
U3 HLA01CT018	FD FAN A INLET TEMPERATURE TRANSMITTER 4
	RAT-U3-3410-TXS-HLA01CT019
U3 HLA01CT019	FD FAN B INLET TEMPERATURE TRANSMITTER 3
	RAT-U3-3410-TXS-HLA01CT020
U3 HLA01CT020	FD FAN B INLET TEMPERATURE TRANSMITTER 4
	RAT-U3-3411
	U3 AIRHEATER AIR INLET DUCTING
	RAT-U3-3411-VLV
	U3 AIRHEATER AIR INLET DUCTING - VALVES
	RAT-U3-3411-VLV-HCC01AA402
U3 HCC01AA402	AIR HEATER A AIR INLET DUCT DRAIN VALVE
	RAT-U3-3411-VLV-HCC01AA404
U3 HCC01AA404	AIR HEATER B AIR INLET DUCT DRAIN VALVE
	RAT-U3-3411-VLV-HCC01AA406
U3 HCC01AA406	AIR HEATER C AIR INLET DUCT DRAIN VALVE
	RAT-U3-3411-VLV-HCD01AA402

U3 HCD01AA402 AIR HEATER A AIR INLET DUCT DRAIN BACK FLUSH ISOLATION VALVE
RAT-U3-3411-VLV-HCD01AA404
U3 HCD01AA404 AIR HEATER B AIR INLET DUCT DRAIN BACKFLUSH ISOLATION VALVE
RAT-U3-3411-VLV-HCD01AA406
U3 HCD01AA406 AIR HEATER C AIR INLET DUCT DRAIN BACKFLUSH VALVE
RAT-U3-3450-ACT-HLA01AA001
U3 HLA01AA001 FD FAN A HOT AIR RECIRCULATION DAMPER ACTUATOR
RAT-U3-3450-ACT-HLA01AA002
U3 HLA01AA002 FD FAN B HOT AIR RECIRCULATION DAMPER ACTUATOR
RAT-U3-3450-DMP-HLA01AA001
U3 HLA01AA001 FD FAN A HOT AIR RECIRCULATION DAMPER
RAT-U3-3450-DMP-HLA01AA002
U3 HLA01AA002 FD FAN B HOT AIR RECIRCULATION DAMPER
RAT-U3-3450-LIS
U3 COMBUSTION AIR RECIRCULATION SYSTEM - LOCAL ISOLATING SWITCH
RAT-U3-3450-LIS-HLA01GS001
U3 HLA01GS001 FD FAN A HOT AIR RECIRCULATION DAMPER LOCAL ISOLATOR
RAT-U3-3450-LIS-HLA01GS002
U3 HLA01GS002 FD FAN B HOT AIR RECIRCULATION DAMPER LOCAL ISOLATOR
RAT-U3-3450-SWX
U3 COMBUSTION AIR RECIRCULATION SYSTEM - AUX SWITCHES
RAT-U3-3450-SWX-HLA01CG001
U3 HLA01GS001 FD FAN A HOT AIR RECIRCULATION DAMPER ACTUATOR LIMIT SWITCH
RAT-U3-3450-SWX-HLA01CG002
U3 HLA01CG002 FD FAN B HOT AIR RECIRCULATION DAMPER ACTUATOR LIMIT SWITCH
RAT-U3-3510-APN
U3 GAS PASS - PNEUMATIC ACTUATORS
RAT-U3-3510-APN-HNA10AA210
U3 HNA10AA210 A SIDE REHEATER DAMPER ACTUATOR
RAT-U3-3510-APN-HNA10AA211
U3 HNA10AA211 A SIDE SUPERHEATER DAMPER ACTUATOR
RAT-U3-3510-APN-HNA20AA210
U3 HNA20AA210 B SIDE REHEATER DAMPER ACTUATOR
RAT-U3-3510-APN-HNA20AA211
U3 HNA20AA211 B SIDE SUPERHEATER DAMPER ACTUATOR
RAT-U3-3510-DMP-HNA10AA210
U3 HNA10AA210 A SIDE REHEATER DAMPER
RAT-U3-3510-DMP-HNA10AA211
U3 HNA10AA211 A SIDE SUPERHEATER DAMPER
RAT-U3-3510-DMP-HNA20AA210
U3 HNA20AA210 B SIDE REHEATER DAMPER
RAT-U3-3510-DMP-HNA20AA211
U3 HNA20AA211 B SIDE SUPERHEATER DAMPER
RAT-U3-3510-SWX
U3 GAS PASS DAMPER AUXILIARY - SWITCHES
RAT-U3-3510-SWX-HNA10CG210
U3 HNA10CG210 A SIDE REHEATER DAMPER ACTUATOR LIMIT SWITCH
RAT-U3-3510-SWX-HNA10CG211
U3 HNA10CG211 A SIDE SUPERHEATER DAMPER ACTUATOR LIMIT SWITCH
RAT-U3-3510-SWX-HNA20CG210
U3 HNA20CG210 B SIDE REHEATER DAMPER ACTUATOR LIMIT SWITCH
RAT-U3-3510-SWX-HNA20CG211

U3 HNA20CG211 B SIDE SUPERHEATER DAMPER ACTUATOR LIMIT SWITCH
RAT-U3-3510-TXS
U3 GAS PASS - TRANSMITTERS
RAT-U3-3510-TXS-HNA10DF210
U3 HNA10DF210 A SIDE REHEATER DAMPER ACTUATOR POSITIONER
RAT-U3-3510-TXS-HNA10DF211
U3 HNA10DF211 A SIDE SUPERHEATER DAMPER ACTUATOR POSITIONER
RAT-U3-3510-TXS-HNA20DF210
U3 HNA20DF210 B SIDE REHEATER DAMPER ACTUATOR POSITIONER
RAT-U3-3510-TXS-HNA20DF211
U3 HNA20DF211 B SIDE SUPERHEATER DAMPER ACTUATOR POSITIONER
RAT-U3-3510-VLV-QEB10AA141
U3 QEB10AA141 A SIDE REHEATER DAMPER INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3510-VLV-QEB10AA142
U3 QEB10AA142 A SIDE SUPERHEATER DAMPER INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3510-VLV-QEB20AA141
U3 QEB20AA141 B SIDE REHEATER DAMPER INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3510-VLV-QEB20AA142
U3 QEB20AA142 B SIDE SUPERHEATER DAMPER INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3530-RTD
U3 AIRHEATER EXIT FLU GAS - RTD - TEMPERATURE MEASUREMENT
RAT-U3-3530-RTD-HLA01CT001
U3 HLA01CT001 AIRHEATER A EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 1
RAT-U3-3530-RTD-HLA01CT002
U3 HLA01CT002 AIRHEATER A EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 2
RAT-U3-3530-RTD-HLA01CT003
U3 HLA01CT003 AIRHEATER A EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 3
RAT-U3-3530-RTD-HLA01CT004
U3 HLA01CT004 AIRHEATER B EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 1
RAT-U3-3530-RTD-HLA01CT005
U3 HLA01CT005 AIRHEATER B EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 2
RAT-U3-3530-RTD-HLA01CT006
U3 HLA01CT006 AIRHEATER B EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 3
RAT-U3-3530-RTD-HLA01CT007
U3 HLA01CT007 AIRHEATER B EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 4
RAT-U3-3530-RTD-HLA01CT008
U3 HLA01CT008 AIRHEATER B EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 5
RAT-U3-3530-RTD-HLA01CT009
U3 HLA01CT009 AIRHEATER B EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 6
RAT-U3-3530-RTD-HLA01CT010
U3 HLA01CT010 AIRHEATER C EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 1
RAT-U3-3530-RTD-HLA01CT011
U3 HLA01CT011 AIRHEATER C EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 2
RAT-U3-3530-RTD-HLA01CT012
U3 HLA01CT012 AIRHEATER C EXIT FLUE GAS TEMPERATURE MEASUREMENT ELEMENT 3
RAT-U3-3530-TXS
U3 AIRHEATER EXIT FLU GAS - TRANSMITTERS
RAT-U3-3530-TXS-HLA01CT001
U3 HLA01CT001 AIRHEATER A EXIT FLUE GAS TEMPERATURE TRANSMITTER 1
RAT-U3-3530-TXS-HLA01CT002
U3 HLA01CT002 AIRHEATER A EXIT FLUE GAS TEMPERATURE TRANSMITTER 2
RAT-U3-3530-TXS-HLA01CT003

U3 HLA01CT003	AIRHEATER A EXIT FLUE GAS TEMPERATURE TRANSMITTER 3
	RAT-U3-3530-TXS-HLA01CT004
U3 HLA01CT004	AIRHEATER B EXIT FLUE GAS TEMPERATURE TRANSMITTER 1
	RAT-U3-3530-TXS-HLA01CT005
U3 HLA01CT005	AIRHEATER B EXIT FLUE GAS TEMPERATURE TRANSMITTER 2
	RAT-U3-3530-TXS-HLA01CT006
U3 HLA01CT006	AIRHEATER B EXIT FLUE GAS TEMPERATURE TRANSMITTER 3
	RAT-U3-3530-TXS-HLA01CT007
U3 HLA01CT007	AIRHEATER B EXIT FLUE GAS TEMPERATURE TRANSMITTER 4
	RAT-U3-3530-TXS-HLA01CT008
U3 HLA01CT008	AIRHEATER B EXIT FLUE GAS TEMPERATURE TRANSMITTER 5
	RAT-U3-3530-TXS-HLA01CT009
U3 HLA01CT009	AIRHEATER B EXIT FLUE GAS TEMPERATURE TRANSMITTER 6
	RAT-U3-3530-TXS-HLA01CT010
U3 HLA01CT010	AIRHEATER C EXIT FLUE GAS TEMPERATURE TRANSMITTER 1
	RAT-U3-3530-TXS-HLA01CT011
U3 HLA01CT011	AIRHEATER C EXIT FLUE GAS TEMPERATURE TRANSMITTER 2
	RAT-U3-3530-TXS-HLA01CT012
U3 HLA01CT012	AIRHEATER C EXIT FLUE GAS TEMPERATURE TRANSMITTER 3
	RAT-U3-3530-VLV
	U3 AIRHEATER EXIT FLU GAS - VALVES
	RAT-U3-3530-VLV-HCC01AA401
U3 HCC01AA401	AIR HEATER A FLUE GAS OUTLET DUCT DRAIN VALVE
	RAT-U3-3530-VLV-HCC01AA403
U3 HCC01AA403	AIR HEATER COMMON FLUE GAS OUTLET DUCT DRAIN 1 ISOLATION VALVE
	RAT-U3-3530-VLV-HCC01AA405
U3 HCC01AA405	AIR HEATER C FLUE GAS OUTLET DUCT DRAIN VALVE
	RAT-U3-3530-VLV-HCD01AA401
U3 HCD01AA401	AIR HEATER A FLUE GAS OUTLET DUCT DRAIN BACKFLUSH ISOLATION VALVE
	RAT-U3-3530-VLV-HCD01AA403
U3 HCD01AA403	AIR HEATER COMMON FLUE GAS OUTLET DUCT DRAIN 1 BACKFLUSH ISOLATION VALVE
	RAT-U3-3530-VLV-HCD01AA405
U3 HCD01AA405	AIR HEATER C FLUE GAS OUTLET DUCT DRAIN BACKFLUSH VALVE
	RAT-U3-3555-SWT
	U3 ID FAN VSD SYSTEM- SWITCH
	RAT-U3-3555-SWT-VSD-A-LLD1
U3 HNC10GU001	VSD FOR FAN A 9A PUMPING CABINET HEAT EXCHANGER L-L DS1 ISOLATOR AT GSM-H3
	RAT-U3-3555-SWT-VSD-A-LLD2
U3 HNC10GU001	VSD FOR FAN A 9A PUMPING CABINET HEAT EXCHANGER L-L DS2 ISOLATOR AT 3-N
	RAT-U3-3555-SWT-VSD-B-LLD1
U3 HNC20GU001	VSD FOR FAN B 9A PUMPING CABINET HEAT EXCHANGER L-L DS1 ISOLATOR AT GSM-H3
	RAT-U3-3555-SWT-VSD-B-LLD2
U3 HNC20GU001	VSD FOR FAN B 9A PUMPING CABINET HEAT EXCHANGER L-L DS2 ISOLATOR AT 3-N
	RAT-U3-3815-ACT-HCB01AA002
U3 HCB01AA002	SECONDARY ECONOMISER SOOTBLOWER STEAM SUPPLY VALVE ACTUATOR
	RAT-U3-3815-ACT-HCB01AA404
U3 HCB01AA404	SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER DRAIN VALVE ACTUATOR
	RAT-U3-3815-ACT-HCB01AA408
U3 HCB01AA408	SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER DRAIN VALVE ACTUATOR
	RAT-U3-3815-FLT
	U3 SECTION 3 SOOTBLOWERS 85-122 (SHORT LANCE) - FILTERS
	RAT-U3-3815-FLT-HCB01AT402

U3 HCB01AT402	SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER STEAM CONDENSATE BYPASS LINE STRAINER
	RAT-U3-3815-FLT-HCB01AT403
U3 HCB01AT403	SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER STEAM CONDENSATE BYPASS LINE STRAINER
	RAT-U3-3815-LIS
	U3 SECTION 3 SOOTBLOWERS 85-122 (SHORT LANCE) - LOCAL ISOLATING SWITCH
	RAT-U3-3815-LIS-HCB01GS002
U3 HCB01GS002	SECONDARY ECONOMISER SOOTBLOWER STEAM SUPPLY VALVE ACTUATOR ISOLATOR
	RAT-U3-3815-LIS-HCB01GS404
U3 HCB01GS404	SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER DRAIN VALVE ACTUATOR ISOLATOR
	RAT-U3-3815-LIS-HCB01GS408
U3 HCB01GS408	SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER DRAIN VALVE ACTUATOR ISOLATOR
	RAT-U3-3815-LIS-HCB10GS001
U3 HCB10GS001	A SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (RH PASS) MOTOR 1 ISOLATOR
	RAT-U3-3815-LIS-HCB10GS002
U3 HCB10GS002	A SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (RH PASS) MOTOR 2 ISOLATOR
	RAT-U3-3815-LIS-HCB10GS003
U3 HCB10GS003	A SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (RH PASS) MOTOR 3 ISOLATOR
	RAT-U3-3815-LIS-HCB10GS004
U3 HCB10GS004	A SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (RH PASS) MOTOR 4 ISOLATOR
	RAT-U3-3815-LIS-HCB10GS005
U3 HCB10GS005	A SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (SH PASS) MOTOR 5 ISOLATOR
	RAT-U3-3815-LIS-HCB10GS006
U3 HCB10GS006	A SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (SH PASS) MOTOR 6 ISOLATOR
	RAT-U3-3815-LIS-HCB10GS007
U3 HCB10GS007	A SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (SH PASS) MOTOR 7 ISOLATOR
	RAT-U3-3815-LIS-HCB10GS008
U3 HCB10GS008	A SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (SH PASS) MOTOR 8 ISOLATOR
	RAT-U3-3815-LIS-HCB20GS001
U3 HCB20GS001	B SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (RH PASS) MOTOR 1 ISOLATOR
	RAT-U3-3815-LIS-HCB20GS002
U3 HCB20GS002	B SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (RH PASS) MOTOR 2 ISOLATOR
	RAT-U3-3815-LIS-HCB20GS003
U3 HCB20GS003	B SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (RH PASS) MOTOR 3 ISOLATOR
	RAT-U3-3815-LIS-HCB20GS004
U3 HCB20GS004	B SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (RH PASS) MOTOR 4 ISOLATOR
	RAT-U3-3815-LIS-HCB20GS005
U3 HCB20GS005	B SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (SH PASS) MOTOR 5 ISOLATOR
	RAT-U3-3815-LIS-HCB20GS006
U3 HCB20GS006	B SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (SH PASS) MOTOR 6 ISOLATOR
	RAT-U3-3815-LIS-HCB20GS007
U3 HCB20GS007	B SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (SH PASS) MOTOR 7 ISOLATOR
	RAT-U3-3815-LIS-HCB20GS008
U3 HCB20GS008	B SIDE STEAM SOOTBLOWER SECONDARY ECONOMISER (SH PASS) MOTOR 8 ISOLATOR
	RAT-U3-3815-MTR
	U3 SECTION 3 SOOTBLOWERS 85-122 (SHORT LANCE) - MOTORS
	RAT-U3-3815-MTR-HCB10AE001
U3 HCB10AE001	A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 1 MOTOR
	RAT-U3-3815-MTR-HCB10AE002
U3 HCB10AE002	A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 2 MOTOR
	RAT-U3-3815-MTR-HCB10AE003
U3 HCB10AE003	A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 3 MOTOR

RAT-U3-3815-MTR-HCB10AE004
U3 HCB10AE004 A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 4 MOTOR
RAT-U3-3815-MTR-HCB10AE005
U3 HCB10AE005 A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 5 MOTOR
RAT-U3-3815-MTR-HCB10AE006
U3 HCB10AE006 A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 6 MOTOR
RAT-U3-3815-MTR-HCB10AE007
U3 HCB10AE007 A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 7 MOTOR
RAT-U3-3815-MTR-HCB10AE008
U3 HCB10AE008 A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 8 MOTOR
RAT-U3-3815-MTR-HCB20AE001
U3 HCB20AE001 B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 1 MOTOR
RAT-U3-3815-MTR-HCB20AE002
U3 HCB20AE002 B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 2 MOTOR
RAT-U3-3815-MTR-HCB20AE003
U3 HCB20AE003 B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 3 MOTOR
RAT-U3-3815-MTR-HCB20AE004
U3 HCB20AE004 B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 4 MOTOR
RAT-U3-3815-MTR-HCB20AE005
U3 HCB20AE005 B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 5 MOTOR
RAT-U3-3815-MTR-HCB20AE006
U3 HCB20AE006 B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 6 MOTOR
RAT-U3-3815-MTR-HCB20AE007
U3 HCB20AE007 B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 7 MOTOR
RAT-U3-3815-MTR-HCB20AE008
U3 HCB20AE008 B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 8 MOTOR
RAT-U3-3815-ORI
U3 SECTION 3 SOOTBLOWERS 85-122 (SHORT LANCE) - ORIFICE PLATES
RAT-U3-3815-ORI-HCB01BP402
U3 HCB01BP402 SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER STEAM CONDENSATE BYPASS LINE ORIFICE
RAT-U3-3815-ORI-HCB01BP403
U3 HCB01BP403 SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER STEAM CONDENSATE BYPASS LINE ORIFICE
RAT-U3-3815-PGS
U3 SECTION 3 SOOTBLOWERS 85-122 (SHORT LANCE) - PRESSURE GAUGES
RAT-U3-3815-PGS-HCB01CP001
U3 HCB01CP001 ECONOMISER SOOTBLOWER STEAM SUPPLY PRESSURE INDICATOR
RAT-U3-3815-RES
U3 SECTION 3 SOOTBLOWERS 85-122 (SHORT LANCE) - THERMISTORS
RAT-U3-3815-RES-HCB10CT101
U3 HCB10CT101 A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 1 MOTOR THERMISTOR
RAT-U3-3815-RES-HCB10CT102
U3 HCB10CT102 A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 2 MOTOR THERMISTOR
RAT-U3-3815-RES-HCB10CT103
U3 HCB10CT103 A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 3 MOTOR THERMISTOR
RAT-U3-3815-RES-HCB10CT104
U3 HCB10CT104 A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 4 MOTOR THERMISTOR
RAT-U3-3815-RES-HCB10CT105
U3 HCB10CT105 A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 5 MOTOR THERMISTOR
RAT-U3-3815-RES-HCB10CT106
U3 HCB10CT106 A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 6 MOTOR THERMISTOR
RAT-U3-3815-RES-HCB10CT107

U3 HCB10CT107	A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 7 MOTOR THERMISTOR
	RAT-U3-3815-RES-HCB10CT108
U3 HCB10CT108	A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 8 MOTOR THERMISTOR
	RAT-U3-3815-RES-HCB20CT101
U3 HCB20CT101	B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 1 MOTOR THERMISTOR
	RAT-U3-3815-RES-HCB20CT102
U3 HCB20CT102	B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 2 MOTOR THERMISTOR
	RAT-U3-3815-RES-HCB20CT103
U3 HCB20CT103	B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 3 MOTOR THERMISTOR
	RAT-U3-3815-RES-HCB20CT104
U3 HCB20CT104	B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 4 MOTOR THERMISTOR
	RAT-U3-3815-RES-HCB20CT105
U3 HCB20CT105	B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 5 MOTOR THERMISTOR
	RAT-U3-3815-RES-HCB20CT106
U3 HCB20CT106	B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 6 MOTOR THERMISTOR
	RAT-U3-3815-RES-HCB20CT107
U3 HCB20CT107	B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 7 MOTOR THERMISTOR
	RAT-U3-3815-RES-HCB20CT108
U3 HCB20CT108	B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 8 MOTOR THERMISTOR
	RAT-U3-3815-SBL-HCB10AT001
U3 HCB10AT001	A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 1
	RAT-U3-3815-SBL-HCB10AT002
U3 HCB10AT002	A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 2
	RAT-U3-3815-SBL-HCB10AT003
U3 HCB10AT003	A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 3
	RAT-U3-3815-SBL-HCB10AT004
U3 HCB10AT004	A SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 4
	RAT-U3-3815-SBL-HCB10AT005
U3 HCB10AT005	A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 5
	RAT-U3-3815-SBL-HCB10AT006
U3 HCB10AT006	A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 6
	RAT-U3-3815-SBL-HCB10AT007
U3 HCB10AT007	A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 7
	RAT-U3-3815-SBL-HCB10AT008
U3 HCB10AT008	A SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 8
	RAT-U3-3815-SBL-HCB20AT001
U3 HCB20AT001	B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 1
	RAT-U3-3815-SBL-HCB20AT002
U3 HCB20AT002	B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 2
	RAT-U3-3815-SBL-HCB20AT003
U3 HCB20AT003	B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 3
	RAT-U3-3815-SBL-HCB20AT004
U3 HCB20AT004	B SIDE SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER 4
	RAT-U3-3815-SBL-HCB20AT005
U3 HCB20AT005	B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 5
	RAT-U3-3815-SBL-HCB20AT006
U3 HCB20AT006	B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 6
	RAT-U3-3815-SBL-HCB20AT007
U3 HCB20AT007	B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 7
	RAT-U3-3815-SBL-HCB20AT008
U3 HCB20AT008	B SIDE SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER 8
	RAT-U3-3815-SWX

U3 SECTION 3 SOOTBLOWERS 85-122 (SHORT LANCE) - AUXILIARY SWITCHES	
RAT-U3-3815-SWX-HCB01CG002	
U3 HCB01CG002	SECONDARY ECONOMISER SOOTBLOWER STEAM SUPPLY VALVE ACTUATOR LIMIT SWITCH
RAT-U3-3815-SWX-HCB01CG404	
U3 HCB01CG404	SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER DRAIN VALVE ACTUATOR LIMIT SWITCH
RAT-U3-3815-SWX-HCB01CG408	
U3 HCB01CG408	SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER DRAIN VALVE ACTUATOR LIMIT SWITCH
RAT-U3-3815-TXS	
U3 SECTION 3 SOOTBLOWERS 85-122 (SHORT LANCE) - TRANSMITTERS	
RAT-U3-3815-TXS-HCB01CP002	
U3 HCB01CP002	SECONDARY ECONOMISER SOOTBLOWER STEAM SUPPLY PRESSURE TRANSMITTER
RAT-U3-3815-TXS-HCB01CT002	
U3 HCB01CT002	SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER DRAIN TEMPERATURE TRANSMITTER
RAT-U3-3815-TXS-HCB01CT003	
U3 HCB01CT003	SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER DRAIN TEMPERATURE TRANSMITTER
RAT-U3-3815-VLV-HCB01AA002	
U3 HCB01AA002	SECONDARY ECONOMISER SOOTBLOWER STEAM SUPPLY VALVE
RAT-U3-3815-VLV-HCB01AA004	
U3 HCB01AA004	ECONOMISER SOOTBLOWER STEAM SUPPLY ISOLATION VALVE
RAT-U3-3815-VLV-HCB01AA007	
U3 HCB01AA007	ECONOMISER SOOTBLOWER STEAM PRESSURE REGULATOR VALVE
RAT-U3-3815-VLV-HCB01AA301	
U3 HCB01AA301	ECONOMISER SOOTBLOWER STEAM SUPPLY PRESSURE INDICATOR ISOLATION VALVE
RAT-U3-3815-VLV-HCB01AA302	
U3 HCB01AA302	SECONDARY ECONOMISER SOOTBLOWER STEAM SUPPLY PRESSURE TRANSMITTER ISOLATION VALVE
RAT-U3-3815-VLV-HCB01AA404	
U3 HCB01AA404	SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER DRAIN VALVE
RAT-U3-3815-VLV-HCB01AA405	
U3 HCB01AA405	SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER DRAIN ORIFICE UPSTREAM ISOLATION VALVE
RAT-U3-3815-VLV-HCB01AA406	
U3 HCB01AA406	SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER DRAIN ORIFICE DOWNSTREAM ISOLATION VALVE
RAT-U3-3815-VLV-HCB01AA407	
U3 HCB01AA407	SECONDARY ECONOMISER SUPERHEAT PASS SOOTBLOWER DRAIN NON-RETURN VALVE
RAT-U3-3815-VLV-HCB01AA408	
U3 HCB01AA408	SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER DRAIN VALVE
RAT-U3-3815-VLV-HCB01AA409	
U3 HCB01AA409	SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER DRAIN ORIFICE UPSTREAM ISOLATION VALVE
RAT-U3-3815-VLV-HCB01AA410	
U3 HCB01AA410	SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER DRAIN ORIFICE DOWNSTREAM ISOLATION VALVE
RAT-U3-3815-VLV-HCB01AA411	
U3 HCB01AA411	SECONDARY ECONOMISER REHEAT PASS SOOTBLOWER DRAIN NON-RETURN VALVE
RAT-U3-3815-VLV-HCB01AA413	
U3 HCB01AA413	SECONDARY ECONOMISER SH PASS SOOTBLOWER DRAIN POSITIVE ISOLATION (VERIFIER) VALVE
RAT-U3-3815-VLV-HCB01AA414	
U3 HCB01AA414	SECONDARY ECONOMISER RH PASS SOOTBLOWER DRAIN POSITIVE ISOLATION (VERIFIER) VALVE
RAT-U3-3816-APN	
U3 AIHEATER SOOTBLOWERS - PNEUMATIC ACTUATORS	
RAT-U3-3816-APN-HCB01AA003	

U3 HCB01AA003	AIR HEATER A COLD END SOOTBLOWER STEAM POPPET VALVE ACTUATOR
	RAT-U3-3816-APN-HCB01AA053
U3 HCB01AA053	AIR HEATER B COLD END SOOTBLOWER STEAM POPPET VALVE ACTUATOR
	RAT-U3-3816-APN-HCB01AA103
U3 HCB01AA103	AIR HEATER C COLD END SOOTBLOWER STEAM POPPET VALVE ACTUATOR
	RAT-U3-3816-APN-HCC01AA006
U3 HCC01AA006	AIR HEATER A COLD END SOOTBLOWER HIGH PRESSURE WATER SUPPLY (3-WAY) VALVE ACTUATOR
	RAT-U3-3816-APN-HCC01AA056
U3 HCC01AA056	AIR HEATER B COLD END SOOTBLOWER HIGH PRESSURE WATER SUPPLY (3-WAY) VALVE ACTUATOR
	RAT-U3-3816-APN-HCC01AA106
U3 HCC01AA106	AIR HEATER C COLD END SOOTBLOWER HIGH PRESSURE WATER SUPPLY (3-WAY) VALVE ACTUATOR
	RAT-U3-3816-FLT
	U3 AIHEATER SOOTBLOWERS - FILTERS
	RAT-U3-3816-FLT-HCC01AT002
U3 HCC01AT002	AIR HEATER A COLD END SOOTBLOWER INLET WATER FILTER
	RAT-U3-3816-FLT-HCC01AT052
U3 HCC01AT052	AIR HEATER B COLD END SOOTBLOWER INLET WATER FILTER
	RAT-U3-3816-FLT-HCC01AT102
U3 HCC01AT102	AIR HEATER C COLD END SOOTBLOWER INLET WATER FILTER
	RAT-U3-3816-IND
	U3 AIHEATER SOOTBLOWERS - INSTRUMENTS
	RAT-U3-3816-IND-HCC01CP011
U3 HCC01CP011	AIR HEATER A COLD END SOOTBLOWER PURGE AIR PRESSURE INDICATOR
	RAT-U3-3816-IND-HCC01CP061
U3 HCC01CP061	AIR HEATER B COLD END SOOTBLOWER PURGE AIR PRESSURE INDICATOR
	RAT-U3-3816-IND-HCC01CP111
U3 HCC01CP111	AIR HEATER C COLD END SOOTBLOWER PURGE AIR PRESSURE INDICATOR
	RAT-U3-3816-LIS
	U3 AIHEATER SOOTBLOWERS - LOCAL ISOLATING SWITCH
	RAT-U3-3816-LIS-HCB01GS007
U3 HCB01GS007	AIR HEATER A COLD END SOOTBLOWER ISOLATOR
	RAT-U3-3816-LIS-HCB01GS057
U3 HCB01GS057	AIR HEATER B COLD END SOOTBLOWER ISOLATOR
	RAT-U3-3816-LIS-HCB01GS107
U3 HCB01GS107	AIR HEATER C COLD END SOOTBLOWER ISOLATOR
	RAT-U3-3816-MTR
	U3 AIHEATER SOOTBLOWERS - MOTORS
	RAT-U3-3816-MTR-HCB01AE007
U3 HCB01AE007	AIR HEATER A COLD END SOOTBLOWER MOTOR
	RAT-U3-3816-MTR-HCB01AE057
U3 HCB01AE057	AIR HEATER B COLD END SOOTBLOWER MOTOR
	RAT-U3-3816-MTR-HCB01AE107
U3 HCB01AE107	AIR HEATER C COLD END SOOTBLOWER MOTOR
	RAT-U3-3816-ORI
	U3 AIHEATER SOOTBLOWERS - ORIFICE PLATES
	RAT-U3-3816-ORI-HCB01BP001
U3 HCB01BP001	AIR HEATER A COLD END SOOTBLOWER INLET PRESSURE REDUCTION ORIFICE
	RAT-U3-3816-ORI-HCB01BP002
U3 HCB01BP002	AIR HEATER B COLD END SOOTBLOWER INLET PRESSURE REDUCTION ORIFICE
	RAT-U3-3816-ORI-HCB01BP003
U3 HCB01BP003	AIR HEATER C COLD END SOOTBLOWER INLET PRESSURE REDUCTION ORIFICE

RAT-U3-3816-PGS
U3 AIHEATER SOOTBLOWERS - PRESSURE GAUGES
RAT-U3-3816-PGS-QEB01CP108
U3 QEB01CP108 AIR HEATER WATERWASH SYSTEM INSTRUMENT AIR SUPPLY PRESSURE GAUGE
RAT-U3-3816-PSW
U3 AIHEATER SOOTBLOWERS - PRESSURE SWITCHES
RAT-U3-3816-PSW-HCC01CP012
U3 HCC01CP012 AIR HEATER A COLD END SOOTBLOWER INLET WATER FILTER DIFFERENTIAL PRESSURE SWITCH
RAT-U3-3816-PSW-HCC01CP062
U3 HCC01CP062 AIR HEATER B COLD END SOOTBLOWER INLET WATER FILTER DIFFERENTIAL PRESSURE SWITCH
RAT-U3-3816-PSW-HCC01CP112
U3 HCC01CP112 AIR HEATER C COLD END SOOTBLOWER INLET WATER FILTER DIFFERENTIAL PRESSURE SWITCH
RAT-U3-3816-PWK-HCC01BR111
U3 HCC01BR111 AIR HEATER A COLD END MULTIMEDIA SOOT BLOWER INLET FLEXIBLE
RAT-U3-3816-PWK-HCC01BR121
U3 HCC01BR121 AIR HEATER B COLD END MULTIMEDIA SOOT BLOWER INLET FLEXIBLE
RAT-U3-3816-PWK-HCC01BR131
U3 HCC01BR131 AIR HEATER C COLD END MULTIMEDIA SOOT BLOWER INLET FLEXIBLE
RAT-U3-3816-RES
U3 AIHEATER SOOTBLOWERS - THERMISTORS
RAT-U3-3816-RES-HCB01CT007
U3 HCB01CT007 AIR HEATER A COLD END SOOTBLOWER BOTTOM BLOWER MOTOR THERMISTOR
RAT-U3-3816-RES-HCB01CT057
U3 HCB01CT057 AIR HEATER B COLD END SOOTBLOWER BOTTOM BLOWER MOTOR THERMISTOR
RAT-U3-3816-RES-HCB01CT107
U3 HCB01CT107 AIR HEATER C COLD END SOOTBLOWER BOTTOM BLOWER MOTOR THERMISTOR
RAT-U3-3816-SBL-HCB01AT007
U3 HCB01AT007 AIR HEATER A COLD END SOOTBLOWER
RAT-U3-3816-SBL-HCB01AT057
U3 HCB01AT057 AIR HEATER B COLD END SOOTBLOWER
RAT-U3-3816-SBL-HCB01AT107
U3 HCB01AT107 AIR HEATER C COLD END SOOTBLOWER
RAT-U3-3816-SEN
U3 AIHEATER SOOTBLOWERS - SENSORS
RAT-U3-3816-SEN-HCB01CG007
U3 HCB01CG007 AIR HEATER A COLD END SOOTBLOWER TRAVEL ENCODER
RAT-U3-3816-SEN-HCB01CG057
U3 HCB01CG057 AIR HEATER B COLD END SOOTBLOWER TRAVEL ENCODER
RAT-U3-3816-SEN-HCB01CG107
U3 HCB01CG107 AIR HEATER C COLD END SOOTBLOWER TRAVEL ENCODER
RAT-U3-3816-SOL
U3 AIHEATER SOOTBLOWERS - SOLENOIDS
RAT-U3-3816-SOL-HCB01AA003
U3 HCB01AA003 AIR HEATER A COLD END SOOTBLOWER STEAM POPPET VALVE SOLENOID
RAT-U3-3816-SOL-HCB01AA053
U3 HCB01AA053 AIR HEATER B COLD END SOOTBLOWER STEAM POPPET VALVE SOLENOID
RAT-U3-3816-SOL-HCB01AA103
U3 HCB01AA103 AIR HEATER C COLD END SOOTBLOWER STEAM POPPET VALVE SOLENOID
RAT-U3-3816-SOL-HCC01AA006
U3 HCC01AA006 AIR HEATER A COLD END SOOTBLOWER HIGH PRESSURE WATER SUPPLY (3-WAY) VALVE SOLENOID

RAT-U3-3816-SOL-HCC01AA056
U3 HCC01AA056 AIR HEATER B COLD END SOOTBLOWER HIGH PRESSURE WATER SUPPLY (3-WAY) VALVE SOLENOID
RAT-U3-3816-SOL-HCC01AA106
U3 HCC01AA106 AIR HEATER C COLD END SOOTBLOWER HIGH PRESSURE WATER SUPPLY (3-WAY) VALVE SOLENOID
RAT-U3-3816-SWX
U3 AIHEATER SOOTBLOWERS - AUXILIARY SWITCHES
RAT-U3-3816-SWX-HCB01CG003
U3 HCB01CG003 AIR HEATER A COLD END SOOTBLOWER STEAM VALVE LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG004
U3 HCB01CG004 AIR HEATER A COLD END SOOTBLOWER LANCE EXTEND LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG005
U3 HCB01CG005 AIR HEATER A COLD END SOOTBLOWER LANCE PARK LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG006
U3 HCB01CG006 AIR HEATER A COLD END SOOTBLOWER HIGH PRESSURE WATER VALVE LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG053
U3 HCB01CG053 AIR HEATER B COLD END SOOTBLOWER STEAM VALVE LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG054
U3 HCB01CG054 AIR HEATER B COLD END SOOTBLOWER LANCE EXTEND LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG055
U3 HCB01CG055 AIR HEATER B COLD END SOOTBLOWER LANCE PARK LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG056
U3 HCB01CG056 AIR HEATER B COLD END SOOTBLOWER HP WATER VALVE LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG103
U3 HCB01CG103 AIR HEATER C COLD END SOOTBLOWER STEAM VALVE LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG104
U3 HCB01CG104 AIR HEATER C COLD END SOOTBLOWER LANCE EXTEND LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG105
U3 HCB01CG105 AIR HEATER C COLD END SOOTBLOWER LANCE PARK LIMIT SWITCH
RAT-U3-3816-SWX-HCB01CG106
U3 HCB01CG106 AIR HEATER C COLD END SOOTBLOWER HP WATER VALVE LIMIT SWITCH
RAT-U3-3816-SWX-HCC01CG010
U3 HCC01CG010 AIRHEATER COMMON WATER SUPPLY VALVE LIMIT SWITCH
RAT-U3-3816-TXS
U3 AIHEATER SOOTBLOWERS - TRANSMITTERS
RAT-U3-3816-TXS-HCB01CP003
U3 HCB01CP003 AIR HEATER A COLD END SOOTBLOWER STEAM PRESSURE TRANSMITTER
RAT-U3-3816-TXS-HCB01CP005
U3 HCB01CP005 AIRHEATER SOOTBLOWERS STEAM SUPPLY PRESSURE TRANSMITTER
RAT-U3-3816-TXS-HCB01CP053
U3 HCB01CP053 AIR HEATER B COLD END SOOTBLOWER STEAM PRESSURE TRANSMITTER
RAT-U3-3816-TXS-HCB01CP103
U3 HCB01CP103 AIR HEATER C COLD END SOOTBLOWER STEAM PRESSURE TRANSMITTER
RAT-U3-3816-TXS-HCB01CT001
U3 HCB01CT001 AIR HEATER A STEAM DRAIN TEMPERATURE TRANSMITTER
RAT-U3-3816-TXS-HCB01CT051
U3 HCB01CT051 AIR HEATER B STEAM DRAIN TEMPERATURE TRANSMITTER
RAT-U3-3816-TXS-HCB01CT101
U3 HCB01CT101 AIR HEATER C STEAM DRAIN TEMPERATURE TRANSMITTER
RAT-U3-3816-TXS-HCC01CP010
U3 HCC01CP010 AIR HEATER A COLD END SOOTBLOWER HIGH PRESSURE WATER PRESSURE TRANSMITTER
RAT-U3-3816-TXS-HCC01CP060

U3 HCC01CP060	AIR HEATER B COLD END SOOTBLOWER HIGH PRESSURE WATER TRANSMITTER
	RAT-U3-3816-TXS-HCC01CP110
U3 HCC01CP110	AIR HEATER C COLD END SOOTBLOWER HIGH PRESSURE WATER PRESSURE TRANSMITTER
	RAT-U3-3816-VLV-HCB01AA003
U3 HCB01AA003	AIR HEATER A COLD END SOOTBLOWER STEAM POPPET VALVE
	RAT-U3-3816-VLV-HCB01AA008
U3 HCB01AA008	AIR HEATER SOOT BLOWER STEAM SUPPLY (SELF) REGULATING VALVE
	RAT-U3-3816-VLV-HCB01AA053
U3 HCB01AA053	AIR HEATER B COLD END SOOTBLOWER STEAM POPPET VALVE
	RAT-U3-3816-VLV-HCB01AA103
U3 HCB01AA103	AIR HEATER C COLD END SOOTBLOWER STEAM POPPET VALVE
	RAT-U3-3816-VLV-HCB01AA303
U3 HCB01AA303	AIR HEATER A COLD END SOOTBLOWER STEAM PRESSURE INDICATOR & TRANSMITTER ISOLATION VALVE
	RAT-U3-3816-VLV-HCB01AA305
U3 HCB01AA305	AIR HEATER SOOT BLOWER STEAM SUPPLY (SELF REGULATING VALVE) PRESSURE INDICATOR ISOLATION VALVE
	RAT-U3-3816-VLV-HCB01AA323
U3 HCB01AA323	AIR HEATER B COLD END SOOTBLOWER STEAM PRESSURE INDICATOR & TRANSMITTER ISOLATION VALVE
	RAT-U3-3816-VLV-HCB01AA343
U3 HCB01AA343	AIR HEATER C COLD END SOOTBLOWER STEAM PRESSURE INDICATOR & TRANSMITTER ISOLATION VALVE
	RAT-U3-3816-VLV-HCC01AA006
U3 HCC01AA006	AIR HEATER A COLD END SOOTBLOWER HIGH PRESSURE WATER SUPPLY (3-WAY) VALVE
	RAT-U3-3816-VLV-HCC01AA007
U3 HCC01AA007	AIR HEATER A COLD END SOOTBLOWER HIGH PRESSURE WATER NON-RETURN VALVE
	RAT-U3-3816-VLV-HCC01AA008
U3 HCC01AA008	AIR HEATER A COLD END SOOTBLOWER PURGE AIR NON-RETURN VALVE
	RAT-U3-3816-VLV-HCC01AA010
U3 HCC01AA010	AIR HEATER WATER WASH SUPPLY ISOLATION VALVE 1
	RAT-U3-3816-VLV-HCC01AA011
U3 HCC01AA011	SLUICE WATER SUPPLY ISOLATION VALVE
	RAT-U3-3816-VLV-HCC01AA013
U3 HCC01AA013	AIR HEATER WATER WASH SUPPLY ISOLATION VALVE 2
	RAT-U3-3816-VLV-HCC01AA056
U3 HCC01AA056	AIR HEATER B COLD END SOOTBLOWER HIGH PRESSURE WATER SUPPLY (3-WAY) VALVE
	RAT-U3-3816-VLV-HCC01AA057
U3 HCC01AA057	AIR HEATER B COLD END SOOTBLOWER HIGH PRESSURE WATER NON-RETURN VALVE
	RAT-U3-3816-VLV-HCC01AA058
U3 HCC01AA058	AIR HEATER B COLD END SOOTBLOWER PURGE AIR NON-RETURN VALVE
	RAT-U3-3816-VLV-HCC01AA106
U3 HCC01AA106	AIR HEATER C COLD END SOOTBLOWER HIGH PRESSURE WATER SUPPLY (3-WAY) VALVE
	RAT-U3-3816-VLV-HCC01AA107
U3 HCC01AA107	AIR HEATER C COLD END SOOTBLOWER HIGH PRESSURE WATER NON-RETURN VALVE
	RAT-U3-3816-VLV-HCC01AA108
U3 HCC01AA108	AIR HEATER C COLD END SOOTBLOWER PURGE AIR NON-RETURN VALVE
	RAT-U3-3816-VLV-HCC01AA311
U3 HCC01AA311	AIR HEATER A COLD END SOOTBLOWER HIGH PRESSURE WATER PRESSURE INDICATOR & TRANSMITTER ISOLATION VALVE
	RAT-U3-3816-VLV-HCC01AA331
U3 HCC01AA331	AIR HEATER B COLD END SOOTBLOWER HIGH PRESSURE WATER PRESSURE INDICATOR & TRANSMITTER ISOLATION VALVE
	RAT-U3-3816-VLV-HCC01AA351
U3 HCC01AA351	AIR HEATER C COLD END SOOTBLOWER HIGH PRESSURE WATER PRESSURE INDICATOR & TRANSMITTER ISOLATION VALVE

RAT-U3-3816-VLV-QEB01AA110
U3 QEB01AA110 AIRHEATER- A INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3816-VLV-QEB01AA111
U3 QEB01AA111 AIRHEATER- B INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3816-VLV-QEB01AA112
U3 QEB01AA112 AIRHEATER- C INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-3816-VLV-QEB01AA150
U3 QEB01AA150 AIRHEATER A COLD END SOOTBLOWER STEAM POPPET VALVE INSTRUMENT AIR ISOLATION VALVE
RAT-U3-3816-VLV-QEB01AA151
U3 QEB01AA151 AIRHEATER A COLD END SOOTBLOWER HP WATER VALVE INSTRUMENT AIR ISOLATION VALVE
RAT-U3-3816-VLV-QEB01AA160
U3 QEB01AA160 AIRHEATER B COLD END SOOTBLOWER STEAM POPPET VALVE INSTRUMENT AIR ISOLATION VALVE
RAT-U3-3816-VLV-QEB01AA161
U3 QEB01AA161 AIRHEATER B COLD END SOOTBLOWER HP WATER VALVE INSTRUMENT AIR ISOLATION VALVE
RAT-U3-3816-VLV-QEB01AA170
U3 QEB01AA170 AIRHEATER C COLD END SOOTBLOWER STEAM POPPET VALVE INSTRUMENT AIR ISOLATION VALVE
RAT-U3-3816-VLV-QEB01AA171
U3 QEB01AA171 AIRHEATER C COLD END SOOTBLOWER HP WATER VALVE INSTRUMENT AIR ISOLATION VALVE
RAT-U3-3816-VLV-QEB01AA368
U3 QEB01AA368 AIR HEATER WATER WASH SYSTEM INSTRUMENT AIR SUPPLY PRESSURE INDICATOR ISOLATION VALVE
RAT-U3-3816-VLV-QEC01AA002
U3 QEC01AA002 AIR HEATER A WATERWASH LANCE PURGE AIR SUPPLY ISOLATION VALVE
RAT-U3-3816-VLV-QEC01AA003
U3 QEC01AA003 AIR HEATER B WATERWASH LANCE PURGE AIR SUPPLY ISOLATION VALVE
RAT-U3-3816-VLV-QEC01AA004
U3 QEC01AA004 AIR HEATER C WATERWASH LANCE PURGE AIR SUPPLY ISOLATION VALVE
RAT-U3-3817-PNL-HCB01GH001
U3 HCB01GH001 SOOTBLOWER CONTROL PANEL
RAT-U3-3817-PNL-HCB01GH002
U3 HCB01GH002 AIRHEATER CLEANING DEVICE CONTROL PANEL
RAT-U3-3818
U3 PRIMARY ECONOMISER SOOTBLOWERS (SCR)
RAT-U3-3818-ACT
U3 PRIMARY ECONOMISER SOOTBLOWERS - ACTUATORS
RAT-U3-3818-ACT-HCB01AA001
U3 HCB01AA001 PRIMARY ECONOMISER SOOTBLOWER STEAM SUPPLY VALVE ACTUATOR
RAT-U3-3818-ACT-HCB01AA401
U3 HCB01AA401 PRIMARY ECONOMISER SOOTBLOWER DRAIN VALVE ACTUATOR
RAT-U3-3818-FLT
U3 PRIMARY ECONOMISER SOOTBLOWERS - FILTERS
RAT-U3-3818-FLT-HCB01AT401
U3 HCB01AT401 PRIMARY ECONOMISER SOOTBLOWER STEAM CONDENSATE BYPASS LINE STRAINER
RAT-U3-3818-LIS
U3 PRIMARY ECONOMISER SOOTBLOWERS - LOCAL ISOLATING SWITCH
RAT-U3-3818-LIS-HCB01GS001
U3 HCB01GS001 PRIMARY ECONOMISER SOOTBLOWER STEAM SUPPLY VALVE ACTUATOR ISOLATOR
RAT-U3-3818-LIS-HCB01GS401
U3 HCB01GS401 PRIMARY ECONOMISER SOOTBLOWER DRAIN VALVE ACTUATOR ISOLATOR
RAT-U3-3818-LIS-HCB10GS009
U3 HCB10GS009 A SIDE STEAM SOOTBLOWER PRIMARY ECONOMISER MOTOR 9 ISOLATOR

RAT-U3-3818-LIS-HCB10GS010
U3 HCB10GS010 A SIDE STEAM SOOTBLOWER PRIMARY ECONOMISER MOTOR 10 ISOLATOR
RAT-U3-3818-LIS-HCB10GS011
U3 HCB10GS011 A SIDE STEAM SOOTBLOWER PRIMARY ECONOMISER MOTOR 11 ISOLATOR
RAT-U3-3818-LIS-HCB10GS012
U3 HCB10GS012 A SIDE STEAM SOOTBLOWER PRIMARY ECONOMISER MOTOR 12 ISOLATOR
RAT-U3-3818-LIS-HCB20GS009
U3 HCB20GS009 B SIDE STEAM SOOTBLOWER PRIMARY ECONOMISER MOTOR 9 ISOLATOR
RAT-U3-3818-LIS-HCB20GS010
U3 HCB20GS010 B SIDE STEAM SOOTBLOWER PRIMARY ECONOMISER MOTOR 10 ISOLATOR
RAT-U3-3818-LIS-HCB20GS011
U3 HCB20GS011 B SIDE STEAM SOOTBLOWER PRIMARY ECONOMISER MOTOR 11 ISOLATOR
RAT-U3-3818-LIS-HCB20GS012
U3 HCB20GS012 B SIDE STEAM SOOTBLOWER PRIMARY ECONOMISER MOTOR 12 ISOLATOR
RAT-U3-3818-MTR
U3 PRIMARY ECONOMISER SOOTBLOWERS - MOTORS
RAT-U3-3818-MTR-HCB10AE009
U3 HCB10AE009 A SIDE PRIMARY ECONOMISER SOOTBLOWER 9 MOTOR
RAT-U3-3818-MTR-HCB10AE010
U3 HCB10AE010 A SIDE PRIMARY ECONOMISER SOOTBLOWER 10 MOTOR
RAT-U3-3818-MTR-HCB10AE011
U3 HCB10AE011 A SIDE PRIMARY ECONOMISER SOOTBLOWER 11 MOTOR
RAT-U3-3818-MTR-HCB10AE012
U3 HCB10AE012 A SIDE PRIMARY ECONOMISER SOOTBLOWER 12 MOTOR
RAT-U3-3818-MTR-HCB20AE009
U3 HCB20AE009 B SIDE PRIMARY ECONOMISER SOOTBLOWER 9 MOTOR
RAT-U3-3818-MTR-HCB20AE010
U3 HCB20AE010 B SIDE PRIMARY ECONOMISER SOOTBLOWER 10 MOTOR
RAT-U3-3818-MTR-HCB20AE011
U3 HCB20AE011 B SIDE PRIMARY ECONOMISER SOOTBLOWER 11 MOTOR
RAT-U3-3818-MTR-HCB20AE012
U3 HCB20AE012 B SIDE PRIMARY ECONOMISER SOOTBLOWER 12 MOTOR
RAT-U3-3818-ORI
U3 PRIMARY ECONOMISER SOOTBLOWERS - ORIFICE PLATES
RAT-U3-3818-ORI-HCB01BP401
U3 HCB01BP401 PRIMARY ECONOMISER SOOTBLOWER CONDENSATE BYPASS LINE ORIFICE
RAT-U3-3818-RES
U3 PRIMARY ECONOMISER SOOTBLOWERS - THERMISTORS
RAT-U3-3818-RES-HCB10CT109
U3 HCB10CT109 A SIDE PRIMARY ECONOMISER SOOTBLOWER 9 MOTOR THERMISTOR
RAT-U3-3818-RES-HCB10CT110
U3 HCB10CT110 A SIDE PRIMARY ECONOMISER SOOTBLOWER 10 MOTOR THERMISTOR
RAT-U3-3818-RES-HCB10CT111
U3 HCB10CT111 A SIDE PRIMARY ECONOMISER SOOTBLOWER 11 MOTOR THERMISTOR
RAT-U3-3818-RES-HCB10CT112
U3 HCB10CT112 A SIDE PRIMARY ECONOMISER SOOTBLOWER 12 MOTOR THERMISTOR
RAT-U3-3818-RES-HCB20CT109
U3 HCB20CT109 B SIDE PRIMARY ECONOMISER SOOTBLOWER 9 MOTOR THERMISTOR
RAT-U3-3818-RES-HCB20CT110
U3 HCB20CT110 B SIDE PRIMARY ECONOMISER SOOTBLOWER 10 MOTOR THERMISTOR
RAT-U3-3818-RES-HCB20CT111
U3 HCB20CT111 B SIDE PRIMARY ECONOMISER SOOTBLOWER 11 MOTOR THERMISTOR

RAT-U3-3818-RES-HCB20CT112
U3 HCB20CT112 B SIDE PRIMARY ECONOMISER SOOTBLOWER 12 MOTOR THERMISTOR
RAT-U3-3818-RTD
U3 PRIMARY ECONOMISER SOOTBLOWERS - RTD - TEMP MEASUREMENT
RAT-U3-3818-RTD-HCB10CT001
U3 HCB10CT001 A SIDE PRIMARY ECONOMISER SOOTBLOWER DRAIN TEMPERATURE ELEMENT
RAT-U3-3818-RTD-HCB20CT001
U3 HCB20CT001 B SIDE PRIMARY ECONOMISER SOOTBLOWER DRAIN TEMPERATURE ELEMENT
RAT-U3-3818-SBL
U3 PRIMARY ECONOMISER SOOTBLOWERS - SOOTBLOWERS
RAT-U3-3818-SBL-HCB10AT009
U3 HCB10AT009 A SIDE PRIMARY ECONOMISER SOOTBLOWER 9
RAT-U3-3818-SBL-HCB10AT010
U3 HCB10AT010 A SIDE PRIMARY ECONOMISER SOOTBLOWER 10
RAT-U3-3818-SBL-HCB10AT011
U3 HCB10AT011 A SIDE PRIMARY ECONOMISER SOOTBLOWER 11
RAT-U3-3818-SBL-HCB10AT012
U3 HCB10AT012 A SIDE PRIMARY ECONOMISER SOOTBLOWER 12
RAT-U3-3818-SBL-HCB20AT009
U3 HCB20AT009 B SIDE PRIMARY ECONOMISER SOOTBLOWER 9
RAT-U3-3818-SBL-HCB20AT010
U3 HCB20AT010 B SIDE PRIMARY ECONOMISER SOOTBLOWER 10
RAT-U3-3818-SBL-HCB20AT011
U3 HCB20AT011 B SIDE PRIMARY ECONOMISER SOOTBLOWER 11
RAT-U3-3818-SBL-HCB20AT012
U3 HCB20AT012 B SIDE PRIMARY ECONOMISER SOOTBLOWER 12
RAT-U3-3818-SWX
U3 PRIMARY ECONOMISER SOOTBLOWERS - AUXILIARY SWITCHES
RAT-U3-3818-SWX-HCB01CG001
U3 HCB01CG001 PRIMARY ECONOMISER SOOTBLOWER STEAM SUPPLY VALVE ACTUATOR LIMIT SWITCH
RAT-U3-3818-SWX-HCB01CG401
U3 HCB01CG401 PRIMARY ECONOMISER SOOTBLOWER DRAIN VALVE ACTUATOR LIMIT SWITCH
RAT-U3-3818-TXS
U3 PRIMARY ECONOMISER SOOTBLOWERS - TRANSMITTERS
RAT-U3-3818-TXS-HCB01CP004
U3 HCB01CP004 PRIMARY ECONOMISER SOOTBLOWER STEAM SUPPLY PRESSURE TRANSMITTER
RAT-U3-3818-TXS-HCB10CT001
U3 HCB10CT001 A SIDE PRIMARY ECONOMISER SOOTBLOWER DRAIN TEMPERATURE TRANSMITTER
RAT-U3-3818-TXS-HCB20CT001
U3 HCB20CT001 B SIDE PRIMARY ECONOMISER SOOTBLOWER DRAIN TEMPERATURE TRANSMITTER
RAT-U3-3818-VLV
U3 PRIMARY ECONOMISER SOOTBLOWERS - VALVES
RAT-U3-3818-VLV-HCB01AA001
U3 HCB01AA001 PRIMARY ECONOMISER SOOTBLOWER STEAM SUPPLY VALVE
RAT-U3-3818-VLV-HCB01AA304
U3 HCB01AA304 PRIMARY ECONOMISER SOOTBLOWER STEAM SUPPLY PRESSURE TRANSMITTER ISOLATION VALVE
RAT-U3-3818-VLV-HCB01AA401
U3 HCB01AA401 PRIMARY ECONOMISER SOOTBLOWER DRAIN VALVE
RAT-U3-3818-VLV-HCB01AA402
U3 HCB01AA402 PRIMARY ECONOMISER SOOTBLOWER DRAIN ORIFICE UPSTREAM ISOLATION VALVE
RAT-U3-3818-VLV-HCB01AA403
U3 HCB01AA403 PRIMARY ECONOMISER SOOTBLOWER DRAIN ORIFICE DOWNSTREAM ISOLATION VALVE

RAT-U3-3818-VLV-HCB01AA412
U3 HCB01AA412 PRIMARY ECONOMISER SOOTBLOWER DRAIN POSITIVE ISOLATION (VERIFIER) VALVE
RAT-U3-3818-VLV-HCB01AA415
U3 HCB01AA415 PRIMARY ECONOMISER SOOTBLOWER DRAIN NON-RETURN VALVE
RAT-U3-7131-VLV-HCG01AA304
U3 HCG01AA304 SERVICE AIR SUPPLY PRESSURE INDICATOR ISOLATION VALVE
RAT-U3-7132-PGS
U3 SCR CONTROL AIR SYSTEM - PRESSURE GAUGES
RAT-U3-7132-PGS-QEB01CP106
U3 QEB01CP106 SCR SYSTEM INSTRUMENT AIR SUPPLY PRESSURE GAUGE
RAT-U3-7132-TXS
U3 SCR CONTROL AIR SYSTEM - TRANSMITTERS
RAT-U3-7132-TXS-QEB01CP104
U3 QEB01CP104 SCR SYSTEM INSTRUMENT AIR SUPPLY PRESSURE TRANSMITTER
RAT-U3-7132-VLV-QEB01AA105
U3 QEB01AA105 SCR AREA INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-7132-VLV-QEB01AA364
U3 QEB01AA364 SCR AREA INSTRUMENT AIR SUPPLY PRESSURE TRANSMITTER ISOLATION VALVE
RAT-U3-7132-VLV-QEB01AA366
U3 QEB01AA366 SCR SYSTEM INSTRUMENT AIR SUPPLY PRESSURE GAUGE ISOLATION VALVE
RAT-U3-7132-VLV-QEB01AA501
U3 QEB01AA501 SCR AREA INSTRUMENT AIR SUPPLY VENT ISOLATION VALVE
RAT-U3-7132-VLV-QEB10AA100
U3 QEB10AA100 BOILER A SIDE EXIT O2 ANALYSER INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-7132-VLV-QEB20AA100
U3 QEB20AA100 BOILER B SIDE EXIT O2 ANALYSER INSTRUMENT AIR SUPPLY ISOLATION VALVE
RAT-U3-8350-BKR-33-NTX
U3-N 3.3KV/415V TRANSFORMER 3.3KV ACB
RAT-U3-8350-BKR-415-NTX
U3 BFY01GS004 U3 INCOMING SCR TRANSFORMER 3-N
RAT-U3-8350-TFR-N
U3 BBT01GT003 N 3.3KV/415V TRANSFORMER
RAT-U3-8417
U3 N SWITCHBOARD & ASSOCIATED 415V SWITCHBOARD
RAT-U3-8417-BKR
U3 N SWITCHBOARD & ASSOCIATED 415V SWITCHBOARD - BREAKER
RAT-U3-8417-BKR-BFY01GS005
U3 BFY01GS005 INCOMING STANDBY SWITCHBOARD SB-A
RAT-U3-8417-SWG
U3 N SWITCHBOARD & ASSOCIATED 415V SWITCHBOARD - SWITCHGEAR
RAT-U3-8417-SWG-BFA01GS003
U3 BFA01GS003 3N 415V SWITCHBOARD
RAT-U3-8417-SWT
U3 N SWITCHBOARD & ASSOCIATED 415V SWITCHBOARD - SWITCH
RAT-U3-8417-SWT-CCTS
U3 BFA01GS003 CONTROL CIRCUIT TEST SUPPLY
RAT-U3-8417-SWT-DAHCS-A
U3 HSP01GH001 DRY ASH HANDLING CONTROL SYSTEM SUPPLY A 415V ISOLATING SWITCH
RAT-U3-8417-SWT-DAHCS-B
U3 HSP01GH001 DRY ASH HANDLING CONTROL SYSTEM SUPPLY B 415V ISOLATING SWITCH
RAT-U3-8417-SWT-UPS-2
U3 BFA01GS005 SCR UNIT UPS AC UPS-2/20KVA AT 3 - N

RAT-U3-8417-SWT-UPS-2-BP
U3 BFA01GS005 SCR UNIT UPS BYPASS PANEL AC UPS-2/20KVA SBS FEED AT 3 - N
RAT-U3-8418
U3 GSM-H3 SWITCHBOARD & ASSOCIATED 415V SWITCHBOARD
RAT-U3-8418-BKR
U3 GSM-H3 SWITCHBOARD & ASSOCIATED 415V SWITCHBOARD - BREAKER
RAT-U3-8418-BKR-BFY01GS006
U3 BFY01GS006 GENERAL SERVICES SWITCHBOARD GSM-H3 INCOMING ACB
RAT-U3-8418-SWG
U3 GSM-H3 SWITCHBOARD & ASSOCIATED 415V SWITCHBOARD - SWITCHGEAR
RAT-U3-8418-SWG-GSM-H3
U3 BFA01GS004 GSM-H3 415V SWITCHBOARD
RAT-U3-8418-SWT
U3 GSM-H3 SWITCHBOARD & ASSOCIATED 415V SWITCHBOARD - SWITCH
RAT-U3-8418-SWT-CCTS
U3 BFA01GS004 CONTROL CIRCUIT TEST SUPPLY
RAT-U3-8418-SWT-DB-3PHSPWR
U3 BFA01GS004 3 PHASE SMALL POWER DISTRIBUTION BOARD (FUSES INSIDE)
RAT-U3-8418-SWT-DB-L1
U3 BFA01GS004 SMALL POWER AND LIGHTING SP&N DISTRIBUTION BOARD L1 (FUSES INSIDE)
RAT-U3-8418-SWT-DB-L2
U3 BFA01GS004 SMALL POWER AND LIGHTING SP&N DISTRIBUTION BOARD L2 (FUSES INSIDE)
RAT-U3-8418-SWT-DB-L3
U3 BFA01GS004 SMALL POWER AND LIGHTING SP&N DISTRIBUTION BOARD L3 (FUSES INSIDE)
RAT-U3-8418-SWT-DB-MTRACH
U3 BFA01GS004 MOTOR ANTI-CONDENSATION HEATER SP&N DISTRIBUTION BOARD (FUSES INSIDE)
RAT-U3-8418-SWT-IS-3PHSPWR
U3 BFA01GS004 3 PHASE SMALL POWER DISTRIBUTION BOARD SUPPLY
RAT-U3-8418-SWT-IS-BGWS
U3 BOTTOM GANG WELDING SOCKETS ISOLATING SWITCH
RAT-U3-8418-SWT-IS-CHS-A
U3 SCM CATALYST HANDLING SOCKETS SIDE A 415V ISOLATING SWITCH
RAT-U3-8418-SWT-IS-CHS-B
U3 SCM CATALYST HANDLING SOCKETS SIDE B 415V ISOLATING SWITCH
RAT-U3-8418-SWT-IS-L1
U3 BFA01GS004 SMALL POWER AND LIGHTING SP&N DISTRIBUTION BOARD L1 ISOLATING SWITCH
RAT-U3-8418-SWT-IS-L2
U3 BFA01GS004 SMALL POWER AND LIGHTING SP&N DISTRIBUTION BOARD L2 ISOLATING SWITCH
RAT-U3-8418-SWT-IS-L3
U3 BFA01GS004 SMALL POWER AND LIGHTING SP&N DISTRIBUTION BOARD L3 ISOLATING SWITCH
RAT-U3-8418-SWT-IS-MTRACH
U3 BFA01GS004 MOTOR ANTI-CONDENSATION HEATER SP&N DISTRIBUTION BOARD SUPPLY
RAT-U3-8418-SWT-IS-TGWS
U3 TOP GANG WELDING SOCKETS ISOLATING SWITCH
RAT-U3-8418-SWT-SGY01GH001
U3 SGY01GH001 FIRE ALARM CONTROL PANEL
RAT-U3-8418-SWT-UPS-1
U3 BFA01GS005 SCR UNIT UPS AC UPS-1/20KVA AT GSM-H3
RAT-U3-8418-SWT-UPS-1-BP
U3 BFA01GS005 SCR UNIT UPS BYPASS PANEL AC UPS-1/20KVA SBS FEED AT GSM-H3
RAT-U3-8420-SWT-ISOL-XG-C
U3 MCB DISTRIBUTION BOARD 3-XG-C ISOLATING SWITCH ON 3-XG

RAT-U3-869
U3 SCR INSTRUMENT SUPPLIES & UPS
RAT-U3-8690
U3 SCR INSTRUMENT SUPPLIES & UPS
RAT-U3-8690-BAT
U3 SCR INSTRUMENT SUPPLIES & UPS - BATTERY
RAT-U3-8690-BAT-BFA01GS005
U3 BFA01GS005 SCR UNINTERRUPTABLE POWER SUPPLY (UPS) BATTERY
RAT-U3-8690-FAN
U3 SCR INSTRUMENT SUPPLIES & UPS - FAN
RAT-U3-8690-FAN-PNLCLR
U3 BFA01GS005 SCR 110V UPS PANEL COOLING FANS
RAT-U3-8690-INV
U3 SCR INSTRUMENT SUPPLIES & UPS - INVERTER
RAT-U3-8690-INV-AC UPS-1
U3 BFA01GS005 AC UPS - 1/20KVA
RAT-U3-8690-INV-AC UPS-2
U3 BFA01GS005 AC UPS - 2/20KVA
RAT-U3-8690-SWG
U3 SCR INSTRUMENT SUPPLIES & UPS - SWITCHGEAR
RAT-U3-8690-SWG-UPS-SWBD
U3 BFA01GS005 SCR 110V UPS BACKED SWITCHBOARD
RAT-U3-8690-SWT
U3 SCR 110V UPS BACKED SWITCHBOARD - SWITCH
RAT-U3-8690-SWT-IS-Q61
U3 CJF01EY001 SCR SAFETY SYSTEM CONTROL PANEL ISOLATOR 1
RAT-U3-8690-SWT-IS-Q62
U3 CJF01EY001 SCR SAFETY SYSTEM CONTROL PANEL ISOLATOR 2
RAT-U3-8690-SWT-IS-Q63
U3 BFA01GS003 415V SCR SWITCHBOARD 3N INCOMING METER ISOLATOR
RAT-U3-8690-SWT-IS-Q64
U3 CJF01GK001 SCR PLANT PLC CUBICLE 1 110V ISOLATOR A
RAT-U3-8690-SWT-IS-Q65
U3 CJF01GK001 SCR PLANT PLC CUBICLE 1 110V ISOLATOR B
RAT-U3-8690-SWT-IS-Q66
U3 BFA01GS004 GENERAL SERVICE SWITCH BOARD GSM-H3 INCOMING METER
RAT-U3-8690-SWT-IS-Q67
U3 HNA10CQ020 A SIDE INLET OXYGEN ANALYSER ISOLATOR
RAT-U3-8690-SWT-IS-Q68
U3 HSA10CQ020 A SIDE OUTLET OXYGEN ANALYSER ISOLATOR
RAT-U3-8690-SWT-IS-Q69
U3 HNA20CQ020 B SIDE INLET OXYGEN ANALYSER ISOLATOR
RAT-U3-8690-SWT-IS-Q70
U3 HSA20CQ020 B SIDE OUTLET OXYGEN ANALYSER ISOLATOR
RAT-U3-8690-SWT-IS-Q71
U3 HNC10GU001 VSD FOR ID FAN A 4A CMC MV CABLE CONNECTIONS INPUT & OUTPUT ISOLATOR
RAT-U3-8690-SWT-IS-Q72
U3 BJA01GS001 AFCU FLOW METER SUB DISTRIBUTION BOARD ISOLATOR
RAT-U3-8690-SWT-IS-Q73
U3 HNC20GU002 VSD FOR ID FAN B 4A CMC MV CABLE CONNECTIONS INPUT & OUTPUT ISOLATOR
RAT-U3-8690-SWT-IS-Q74
U3 HNA10CQ010 A SIDE INLET NOX ANALYSER ISOLATOR

RAT-U3-8690-SWT-IS-Q75
U3 HSA10CQ010 A SIDE OUTLET NOX ANALYSER ISOLATOR
RAT-U3-8690-SWT-IS-Q76
U3 HNA20CQ010 B SIDE INLET NOX ANALYSER ISOLATOR
RAT-U3-8690-SWT-IS-Q77
U3 HSA20CQ010 B SIDE OUTLET NOX ANALYSER ISOLATOR
RAT-U3-8690-SWT-IS-Q78
U3 SPARE
RAT-U3-8690-SWT-IS-Q79
U3 CJF01EY002 SCR SIS INTERFACE PANEL ISOLATOR
RAT-U3-8690-SWT-IS-Q80
U3 HNC10GU001 VSD FOR ID FAN A 8A CMC COMMON MODE CHOKE ISOLATOR
RAT-U3-8690-SWT-IS-Q81
U3 HNC20GU002 VSD FOR ID FAN B 8A CMC COMMON MODE CHOKE ISOLATOR
RAT-U3-8741-JBX-UMC402
U3 MARSHALLING BOX UMC 402
RAT-U3-8741-JBX-UMC403
U3 MARSHALLING BOX UMC 403
RAT-U3-8741-JBX-UMC404
U3 MARSHALLING BOX UMC 404
RAT-U3-8741-JBX-UMC405
U3 MARSHALLING BOX UMC 405

ANEXO XVII: CONSOLIDATED RISK ASSESSMENT MATRIX (CRAM)

Impact Scale Categories	Safety Impact (E.ON CRAM Wording)	Enviromental Impact (Option 1 - ABB wording)	Enviromental Impact (Option 2 - E.ON CRAM wording)	Operational Impact (For a baseload or mid-merit plant)
6- Catastrophic	Multiple fatalities, offsite impact	Major airborne release with serious offsite effects. Site shutdown. Serious contamination of groundwater or watercourse with extensive loss of aquatic life	Major environmental disaster causing long-term or irreversible damage and international condemnation	Station loss > 1 month Unit loss > 4 months (>£10m)
5- Major	Single fatality or serious irreversible disability with major quality of life impact	Evacuation of local populace. Temporary disabling and hospitalisation. Serious toxic effect on beneficial or protected species. Widespread but not persistent damage to land. Significant fish kill over 5-mile range	Major environmental impact resulting in significant fines	Station loss > 1 week < 1 month Unit loss > 1 month < 4 months (£2m - £10m)
4- Serious	Major long term but reversible injury	Hospital treatment required. Public warning and off-site emergency plan invoked. Hazardous substance releases into watercourse with ½ mile effect	Reportable incident causing serious but reversible environmental impact	Station loss > 1 day < 1 week Unit loss > 1 week < 1 month Unit output reduction > 1 month Unit efficiency reduction > 2 months Loss of ancillary services > 1 month * (£500k - £2m)
3- Moderate	Reportable injury with impact greater than 3 days	Severe and sustained nuisance e.g. Strong offensive odours or noise disturbance. Major breach of Permitted emissions limits with possibility of prosecution. Numerous public complaints	Moderate short term impact on biological or physical environment	Unforeseen station loss < 1 day Unit loss > 1 day < 1 week Unit output reduction > 1 week < 1 month Unit efficiency reduction > 2 weeks < 2 months Loss of ancillary services > 2 weeks < 1 month* (£150k - £500k)
2- Minor	Medical treatment, less than 3 days impact	Noticeable nuisance off-site e.g. Discernible odours. Minor breach of Permitted emission limits, but no environmental harm. One or two complaints from the public	Short term, minor environmental impact confined to site	Unforeseen unit loss < 1 day Unit output reduction > 1 day < 1 week Unit efficiency reduction > 2 days < 2 weeks Loss of ancillary services > 1 day < 2 weeks* (£20k - £150k)
1- Negligible	Minor or no medical treatment required, no lost time	Nuisance on site only (no off-site effects). No outside complaint	Contained environmental release with no adverse effects	Small and brief output efficiency reduction or ancillary service loss. Repair made in scheduled outage period. Sufficient warning or redundancy <£20k

ANEXO XVII: EXAMPLE OF A TASK LIST FOR A CRITICAL ITEM

ID TRANSFORMER BUCHOLTZ TESTS

RISK ASSESSMENT & METHOD STATEMENT REFERENCES

Area risk assessment number(s):0000000263

Task risk assessment number(s):0000000159

Any other risk assessments number(s) as required:

Method Statement number(s):

FURTHER CONTROLS (for existing controls, refer to risk assessment)

Hazard:Electricity

Controls(s):

Supporting Assessment : None Assesment No. : None Access to HV compounds required- PFW limiting access required., Electrical equipment checked for dead before work commencesThe conditions listed on the Safety Document must be adhered to., Medium Risk - Ensure existing controls are maintained and monitoredWork to SREM12

CARRY OUT TRANSFORMER BUCHOLZ RELAY TESTS

CARRY OUT WORK TO IE/SD 348 AS BELOW.

1. Obtain safety document from P.F.W. office.
2. Check Buchholz test cylinder and pipework for air leaks. Ensure that pressure gauge is sound and not damaged.
3. Inform control room engineer and unit operator that testing of transformer Buchholz relay is to be carried out. Request that unit operator records all alarms received relevant to the transformer under test and the order of their appearance.
4. Obtain tools and equipment and place on truck and proceed to transformer.
5. Check transformer identification ensure name plate matches job card title exactly.
6. Check transformer isolation, ensure that both H.T. and L.T. circuits are isolated and earthed.
7. Gain safe access to Buchholz relay.
8. Clean exterior of Buchholz relay, make sure that the glass inspection window is clean and sound. Ensure that the window calibration in c.c. is clearly visible.
9. Check relay for mechanical damage. Report to supervisor of any damage found.

10. Clean all test cocks, test cocks fitted with extension pipework to ground level should be checked for mechanical damage & remote connection union and taps cleaned.
11. Remove the four fixing screws from the relay terminal box cover.
12. Remove cover taking care not to damage the weather proof sealing gasket.
13. Check that the terminals are tight. Note use an insulated spanner as these terminals are alive at 50v dc and 110v dc.
14. Check with a meter that a voltage of 50v dc is present on the top pair of alarm connections 13 and 15.
15. Check with a meter that a voltage of 110v dc is present on the lower pair of trip connections k43 & k41.
16. No voltage present on lower pair of trip connections checks at the appropriate relay panel that fuse and link are sound.
17. Ensure that both the pet cock (vent) and test cock valves are both clean and turned off.
18. Remove the knurled caps from both pet cock (vent) and test cock valve outlets on relay.
19. Connect up the flexible hose from the Buchholz test cylinder to the test cock on relay.
20. Connect foot pump to the Buchholz test cylinder.
21. Ensure that the Buchholz test cylinder air release cock and test cock on relay are closed.
22. Connect the AVO leads to the top pair alarm connections I3 to I5. Ensure AVO reads 50v dc.
23. By means of the foot pump pressurize the Buchholz test cylinder to about 30 lbs/sq in.
24. Turn the Buchholz test cylinder air release cock to the open position to pressurize the line to the Buchholz relay test cock.
25. Crack open the Buchholz test relay cock allowing the air to filter slowly through the relay housing.
26. Close the test cock valve on the Buchholz relay fully when the oil level viewed through the relay scaled window falls to a level where the volts on the AVO collapse to zero thus indicating that the alarm has been initiated.
27. From the relay's scaled window read off and record the oil level in c.c. thus giving the air volume in the relay to initiate the alarm.
28. Close the test cylinder air release cock.
29. Open the pet cock (vent) valve to release air from the relay and associated pipework. Close the valve immediately the oil starts to flow freely (free of air bubbles).
30. Proceed to the nearest pax phone contact unit operator and ensure that he has received the appropriate alarm.

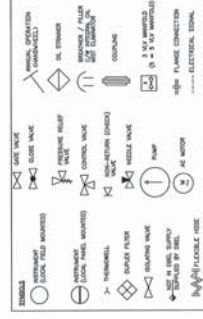
31. Request the unit operator to reset the alarm.
 32. At the transformer check that the 50v. dc. Supply is restored to the alarm connections 13 to 15.
 33. Remove meter leads from alarm connections I3 to I5.
 34. Connect the meter leads to the lower trip terminals k43 k41. Note suffix or prefix may be added to these core numbers.
 35. Check that the meter indicates 110v.dc.
Note: when carrying out this test it should be remembered that the operating pressure needed in the air bottle to actuate the trip Element bears no relationship to the oil velocity operating figure. It must be looked upon simply as a means of checking that the trip element is operating and nothing more.
 36. Re-pressurize the test cylinder to 40lb/sq in. record the exact pressure.
 37. Open fully the test cylinder air release cock valve.
 38. Open fully the test cock valve on relay allowing a surge of air to enter the relay housing, sufficient to trip the relay. This is indicated by the collapse of the volts on the AVO to zero. At this instant immediately close the relay test cock valve.
 39. Close the test cylinder air release valve.
 40. Open the petcock (vent) valve to release the air from the relay and associated pipework. Close the valve immediately the oil starts to flow freely (free of air bubbles).
 41. Proceed to the relevant relay panel observe that the Buchholz relay has tripped. Type c. A.F. annunciate relay. Reset the relay flag.
 42. Proceed to nearest pax phone, contact unit operator and ensure he has received both the alarm and the protection operated alarm appropriate to the transformer being tested.
 43. Request the unit operator to reset alarms.
 44. At the transformer check that both the 110v dc and the 50v dc supplies have been restored.
- Note:** on coal plant transformers alarms must reset in coal plant control room and main control room before supply will be restored to alarm terminals in Buchholz relay.
45. Pressurize test cylinder to 38 lbs/sq in.
 46. Ensure meter leads are connected to the lower trip connections k43 k41 and 110v.dc.
 47. Carry out steps 37 to 44.
 48. Continue to decrease pressure in test cylinder gradually carry out steps 37 to 44 until the minimum pressure to trip the relay is obtained. Record all details and number of tests carried out.

49. Open the petcock (vent) valve after each test to release air from the relay and associated pipework.
50. When the minimum pressure has been determined remove the meter leads from the trip connections.
51. Inspect terminal cover gasket for soundness. Replace as necessary.
52. Refit cover & tighten screws.
53. Open petcock (vent) valve and release all air from pipework.
54. Ensure that both test cock and petcock (vent) valves are closed on relay remove the flexible hose from the Buchholz test cylinder to the test cock on relay.
55. Refit knurled caps to test & vent valves.
56. Clean up any oil spillage on transformer or on floor.
57. Proceed to the nearest pax phone contact unit operator inform him that all tests on Buchholz relay are completed.
58. Proceed to relay rooms ensure that relay to the appropriate transformer (Buchholz relay) is reset.
59. Remove all tools & equipment from transformer bay.
60. Clear safety document.

ANEXO XVIII: ID FANS & AMMONIA COMMON PLANT P&ID's

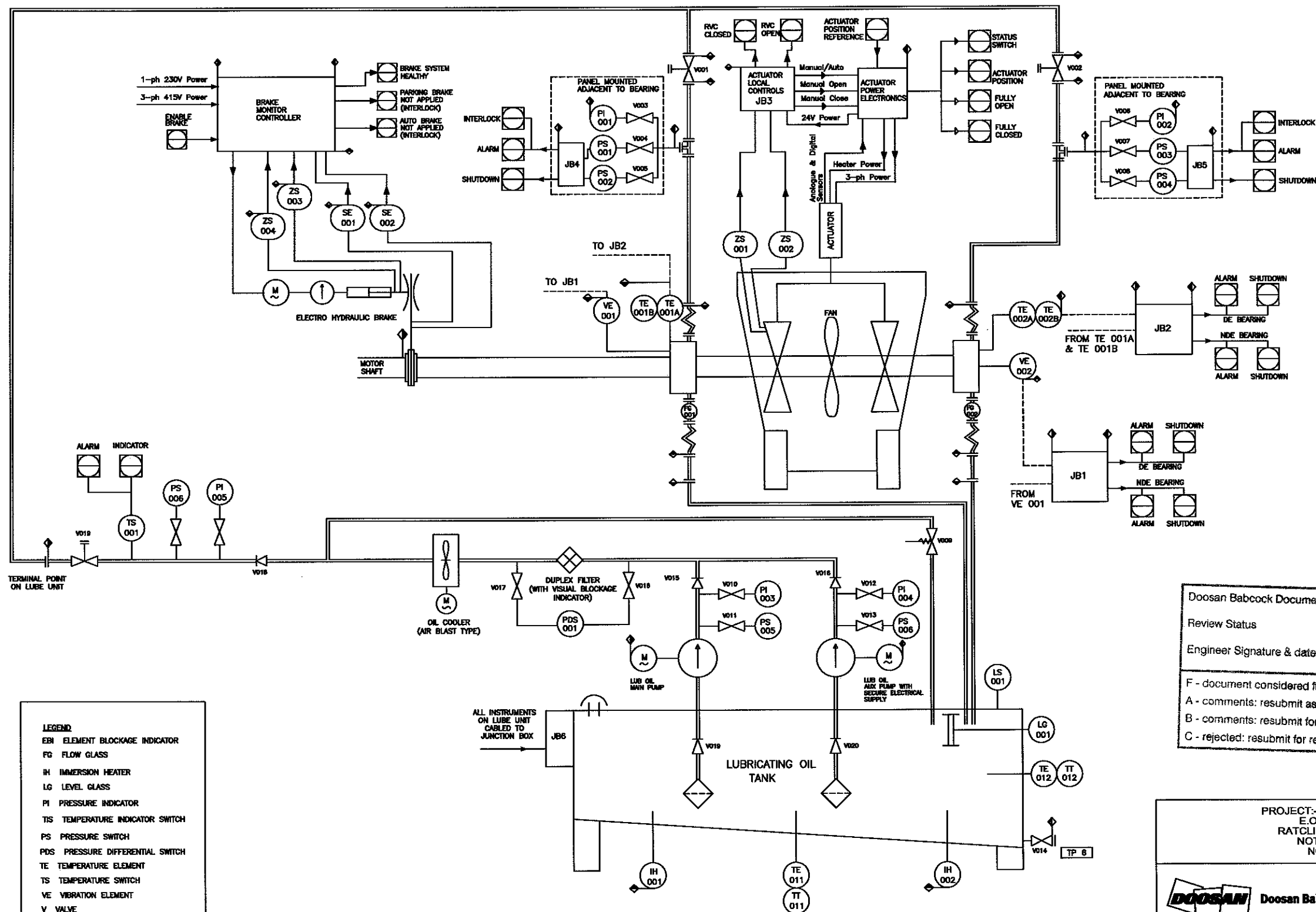
The following Piping and Instrumentation Diagrams were examined with accuracy and detail when designing the SCR SAP Functional Location Structure. At all stages of the project a very rigorous approach was employed to ensure accuracy of information. A list of all discrepancies was carefully compiled, the issues raised through several meetings with the principal contractor and E.ON Engineers. These were progressed to successful completion and final approval.

THE PURPOSE OF THIS P&I DIAGRAM IS TO FACILITATE THE HAZOP STUDY ONLY. THIS P&ID WILL NOT BE REFERED TO AS PART OF THE PROCESS DOCUMENTATION. DBEL AND SUB-CONTRACTOR P&ID'S ONLY WILL CONTINUE TO REMAIN AS CONTRACTUAL SUBMISSIONS.

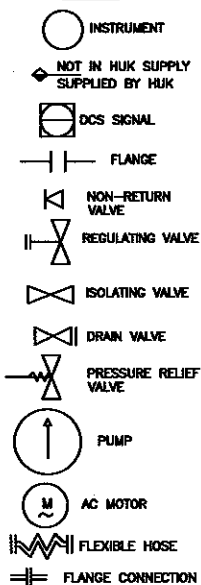
[illegible]

ORIGINAL SIZE A0

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SYMBOLS



LEGEND

EBI ELEMENT BLOCKAGE INDICATOR
 FG FLOW GLASS
 IH IMMERSION HEATER
 LG LEVEL GLASS
 PI PRESSURE INDICATOR
 TIS TEMPERATURE INDICATOR SWITCH
 PS PRESSURE SWITCH
 PDS PRESSURE DIFFERENTIAL SWITCH
 TE TEMPERATURE ELEMENT
 TS TEMPERATURE SWITCH
 VE VIBRATION ELEMENT
 V VALVE
 SS STATUS SWITCH
 ZS POSITION SWITCH
 ZT POSITION TRANSMITTER
 SE SPEED ELEMENT

Doosan Babcock Document Number

Review Status

Engineer Signature & date

F - document considered final

A - comments: resubmit as final

B - comments: resubmit for review

C - rejected: resubmit for review

PROJECT:- RATCLIFFE SCR
 E.ON UK PLC
 RATCLIFFE ON SOAR
 NOTTINGHAM
 NG11 0EE



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TITLE P & I DIAGRAM

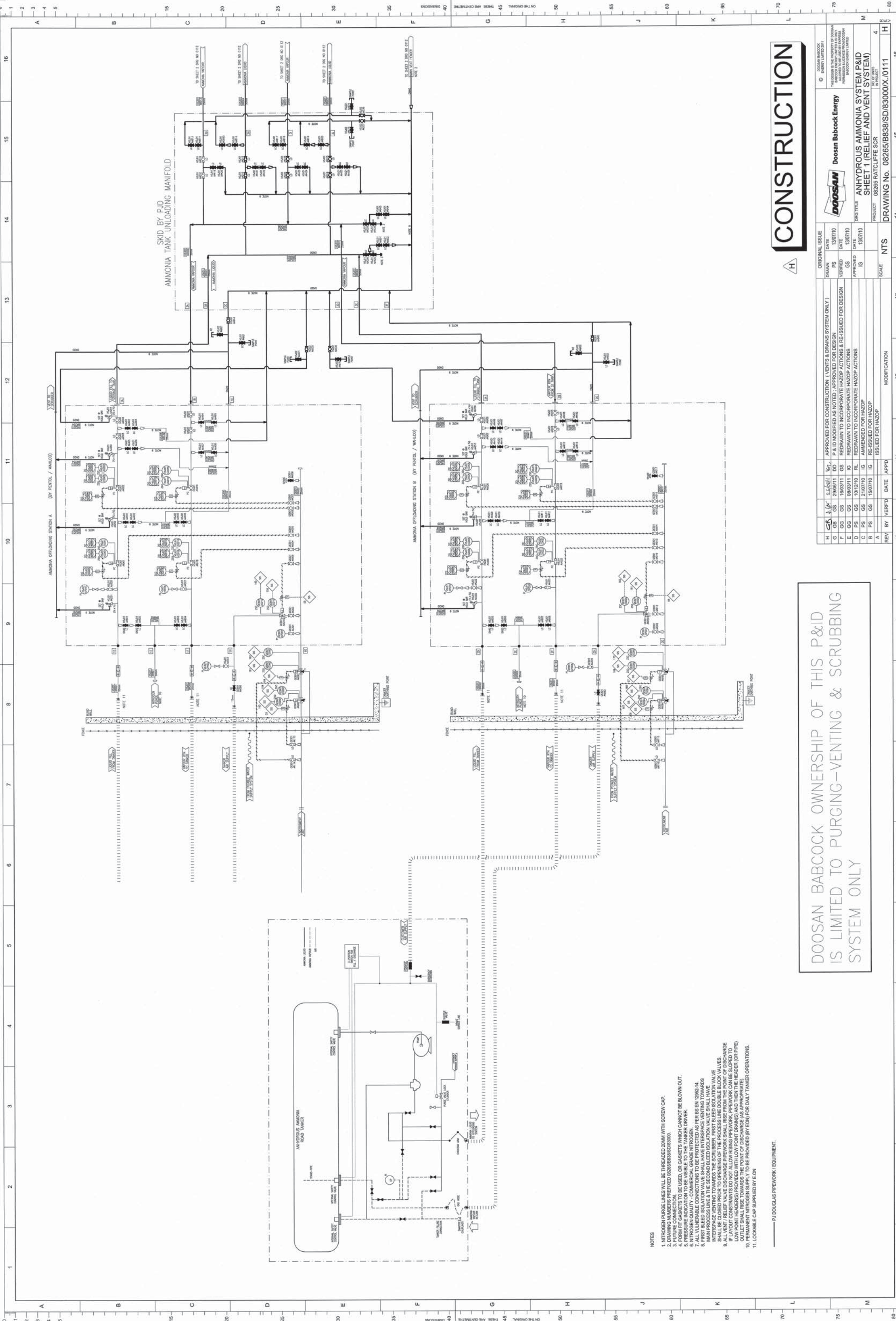
PROJECT 08265-RATCLIFFE SCR No. OF UNITS IN PROJECT 4
 DBEL NUMBER 08265/CHPR/CB/30000/0014 REV A
 EON DOC. NO. RA33637 REV A

SCALE		DRAWN MC 24/04/08		CHECKED DMG 24/04/08		APPROVED	
UNLIMITED MACHINED SIZES TO BE WITHIN ± 0.25 mm.		SURFACE SYMBOLS SHOWN ARE BASED ON B.S.308 AND TEXTURED VALUES ARE IN MICROMETRES.		H004039		AS DRAWING	
WORKS ORDER. No OFF.		REMARKS.		H004039/088012		AFFX A	

Howden
 P & I DIAGRAM
 DOOSAN BABCOCK - RATCLIFFE ID FAN
 DRAWING NUMBER H004039/088012

REV.	DATE	BY	CHKD.	APPD.	DESCRIPTION
1	24/07/08	MC			FIRST ISSUE
2					
3					
4					
5					
6					
7					
8					

UNLESS OTHERWISE STATED
 ALL WELDED AND BOLTED
 FABRICATIONS
 OVERALL DIMENSIONS:-
 UP TO 2m ± 2 mm
 BETWEEN 2m AND 3m ± 3 mm
 BETWEEN 3m AND 4m ± 4 mm
 OVER 4m ± 6 mm



— PU DOUGLAS PIPEWORK / EQUIPMENT.

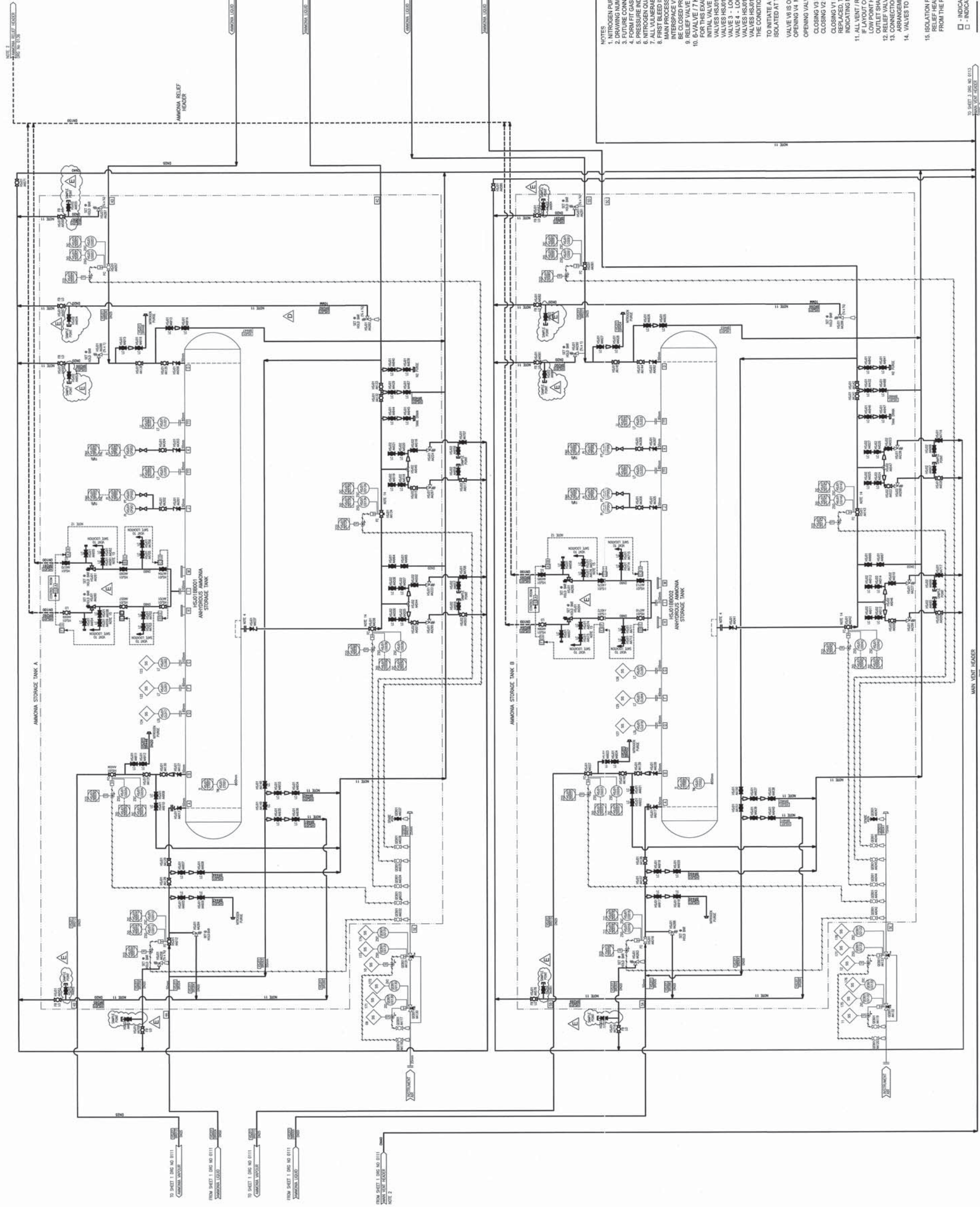
- NOTES
1. NITROGEN PURGE LINES WILL BE PURGED WITH SCREW CAP.
 2. DRAWING NUMBERS PREFIXED 08265/SD/83000X.
 3. FUTURE CONNECTION.
 4. FORM FIT GASKETS TO BE USED, OR GASKETS WHICH CANNOT BE BLOWN OUT.
 5. PRESSURE INDICATION TO BE VISIBLE TO THE TANKER DRIVER.
 6. ALL VULNERABLE CONNECTIONS TO BE PROTECTED AS PER BS 12952-14.
 7. FIRST BLEED ISOLATION VALVE SHALL HAVE INTERSPACE VENTING TOWARDS MAIN PROCESS LINE & THE SECOND BLEED ISOLATION VALVE SHALL HAVE INTERSPACE VENTING TOWARDS THE SCRUBBER. FIRST BLEED ISOLATION VALVE SHALL HAVE INTERSPACE VENTING TOWARDS THE SCRUBBER. FIRST BLEED ISOLATION VALVE SHALL HAVE INTERSPACE VENTING TOWARDS THE SCRUBBER.
 8. ALL VENT / RELIEF VALVE DISCHARGE PIPEWORK SHALL RISE FROM THE POINT OF DISCHARGE TO A MINIMUM OF 1.5M ABOVE THE POINT OF DISCHARGE.
 9. IF LAYOUT CONSTRAINTS DO NOT ALLOW RISING PIPEWORK, PIPEWORK CAN BE SLOPED TO A MINIMUM OF 1% SLOPE.
 10. LOW POINT HEADERS(S) PROVIDED WITH LOW POINT DRAINS AND THEN THE HEADER (OR PIPE) SHALL BE SLOPED TO A MINIMUM OF 1% SLOPE.
 11. LOCKABLE CAP SUPPLIED BY E.ON.

DOOSAN BARCOCK OWNERSHIP OF THIS P&ID
IS LIMITED TO PURGING-VENTING & SCRUBBING
SYSTEM ONLY

CONSTRUCTION

ORIGINAL ISSUE				APPROVED FOR CONSTRUCTION (VENTS & DRAINS SYSTEM ONLY)				DOOSAN BARCOCK			
H	CS	2/10/11	DD	CS	2/10/11	DD	CS	DOOSAN BARCOCK			
G	GB	CS	2/10/11	DD	CS	2/10/11	DD	DOOSAN BARCOCK			
F	GB	CS	2/10/11	DD	CS	2/10/11	DD	DOOSAN BARCOCK			
E	GB	CS	2/10/11	DD	CS	2/10/11	DD	DOOSAN BARCOCK			
D	PS	CS	2/10/11	DD	CS	2/10/11	DD	DOOSAN BARCOCK			
C	PS	CS	2/10/11	DD	CS	2/10/11	DD	DOOSAN BARCOCK			
B	PS	CS	2/10/11	DD	CS	2/10/11	DD	DOOSAN BARCOCK			
A	PS	CS	2/10/11	DD	CS	2/10/11	DD	DOOSAN BARCOCK			
REV	BY	VERFD	DATE	APPD	DATE	MODIFICATION	SCALE	DOOSAN BARCOCK			
1	1	1	1	1	1	1	1	DOOSAN BARCOCK			
2	2	2	2	2	2	2	2	DOOSAN BARCOCK			
3	3	3	3	3	3	3	3	DOOSAN BARCOCK			
4	4	4	4	4	4	4	4	DOOSAN BARCOCK			
5	5	5	5	5	5	5	5	DOOSAN BARCOCK			
6	6	6	6	6	6	6	6	DOOSAN BARCOCK			
7	7	7	7	7	7	7	7	DOOSAN BARCOCK			
8	8	8	8	8	8	8	8	DOOSAN BARCOCK			
9	9	9	9	9	9	9	9	DOOSAN BARCOCK			
10	10	10	10	10	10	10	10	DOOSAN BARCOCK			
11	11	11	11	11	11	11	11	DOOSAN BARCOCK			
12	12	12	12	12	12	12	12	DOOSAN BARCOCK			
13	13	13	13	13	13	13	13	DOOSAN BARCOCK			
14	14	14	14	14	14	14	14	DOOSAN BARCOCK			
15	15	15	15	15	15	15	15	DOOSAN BARCOCK			
16	16	16	16	16	16	16	16	DOOSAN BARCOCK			

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TITLE		ANHYDROUS AMMONIA SYSTEM P&ID SHEET 1 (RELIEF AND VENT SYSTEM)		M	
PROJECT		06205 RATCLIFFE SCR		NO OF SHEETS	
				IN PROJECT	
				4	
DRAWING No.		08265/B38/SD/83000/X/0111		H	
				A	



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SYSTEM ONLY

CONSTRUCTION

F

[illegible]

☐ - INDICATES KEY FREE
☐ - INDICATES KEY TRAPPED
 _____ PJ DOUGLAS PIPE
 HOLDS
 1. DUPLICATED KKS VALVE NUMBER

15. ISOLATION FOR MAN ENTRY INTO THE TANK VESSEL: THE OUT OF SERVICE SAFETY VALVE WILL BE REMOVED AND THE LINE TO THE RELIEF HEADER FITTED WITH A BLANK FLANGE. THE INTERLOCK SYSTEM WILL THEN BE USED TO ISOLATE THE OTHER RELIEF VALVE FROM THE RELIEF HEADER. THIS WILL THEN ALSO BE REMOVED AND BLANKED OFF FROM THE RELIEF HEADER.

14. VALVES TO BE SUPPLIED WITH THE FACILITY TO MANUALLY CLOSE FOR MAINTENANCE PURPOSES (AS PER BS EN 2952-14 PARA 4.8.4.3)

OUTLET SHALL RISE TOWARDS THE POINT OF DISCHARGE (AS APPROPRIATE).
LOW POINT HEADER(S) PROVIDED WITH LOW POINT DRAIN(S) AND THEN THE HEADER (OR PIPE)
12. RELIEF VALVES / ISOLATION VALVES SUPPLIED AS A SINGLE PACKAGE.
13. CONNECTION TYPES AT SKID INTERFACES / EQUIPMENT INTERFACE(S) NEED TO BE DEFINED BASED ON FINALISED PIPING

11. ALL VENT / RELIEF VALVE DISCHARGE PIPEWORK SHALL RISE FROM THE POINT OF DISCHARGE TO A POINT HIGHER THAN THE MAXIMUM LIQUID LEVEL OF THE VESSEL. IF LAYOUT CONSTRAINTS DO NOT ALLOW RAISING PIPEWORK, PIPEWORK CAN BE SLOPED TO A LOW POINT (E.G. DRAIN) AND THEN THE FLOW REVERSED TO THE VESSEL (OR PIPE) TO INDICATING NORMAL OPERATION.

CLOSING V2 RELEASES RET (F) TO CLOSE V1 (RELIEF VALVE OUTLET VALVE). THIS INDICATING RELAY (VALVE IN) A) CLOSING V1 RELEASES THE RED KEY WHICH INDICATES THAT ONLY ONE RELIEF VALVE LINE IS IN SERVICE. AFTER RELIEF VALVE 'A' IS REPLACED, THE RED KEY IS USED TO OPEN VALVE V1 AGAIN, RELEASING THE GREEN KEY. THIS KEY IS RETURNED TO THE CONTROL ROOM BY THE OPERATOR. THE GREEN KEY IS USED TO OPEN VALVE V2 AGAIN, RELEASING THE RED KEY.

OPENING VALVE V4 RELEASES THE KEY (C) TO CLOSE V3
CLOSING V3 RELEASES THE KEY TO CLOSE V2.
CLOSING V2 RELEASES KEY (E) TO CLOSE V4 RELEASE VALVE (F) TO GET VALVE. THIS IS AN OPENING RELEASE VALVE

VALVE V6 IS OPENED FIRST, RELEASING THE KEY TO OPEN V5. OPENING V5 RELEASES THE KEY TO OPEN V4. OPENING V4 MEANS THAT BOTH STREAMS ARE OPEN AND RELIEF VALVE 'A' CAN NOW BE ISOLATED.

THE CONDITION IS USUALLY INDICATED BY A GREEN KEY IN THE CONTROL ROOM. TO INITIATE A CHANGEOVER THE FOLLOWING PROCEDURE MUST BE EXECUTED, ISOLATED AT THE SAME TIME.

VALVE 3 - LOCKED OPEN
VALVE 4 - LOCKED CLOSED
VALVES HSJ01 AA575/AA560 - LOCKED CLOSED
VALVES HSJ01 AA585/AA570 - LOCKED OPEN

INITIAL VALVE POSITIONS
VALVES HSJ01 AA584/AA569 - LOCKED OPEN
VALVES HSJ01 AA572/AA557 - LOCKED OPEN

RELIEF VALVE DRAIN HOLE TO BE DRILLED AT
6-VALVE / 7 KEY INTERLOCK SYSTEM
FOR THIS EXAMPLE OF RELIEF VALVE OPERA

MAIN PROCESS LINE & THE SECOND BLEED ISOLATION VALVE SHALL HAVE INTERSPACE VENTING TOWARDS THE SCRUBBER. FIRST BLEED ISOLATION VALVE SHALL HAVE INTERSPACE VENTING TOWARDS THE MAIN PROCESS LINE. DOWLINE BLOCK VALVE SHALL BE CLOSED PRIOR TO OPENING OF THE PROCESS LINE DOWLINE BLOCK VALVE.

PRESSURE INDICATION TO BE VISIBLE TO THE TANKER DRIVER.
NITROGEN QUALITY - COMMERCIAL GRADE NITROGEN.
ALL VULNERABLE CONNECTIONS TO BE PROTECTED AS PER BS EN 12952-14.

DRAWING NUMBERS PREFIXED 08265/5838/SD163000.
FUTURE CONNECTION.
FORM FIT GASKETS TO BE USED, OR GASKETS WHICH CANNOT BE BLOWN OUT.

NOTES
NITROGEN RIDGE LINES WILL BE THREADED 20MM WITH SCREW CAP

[illegible]




100

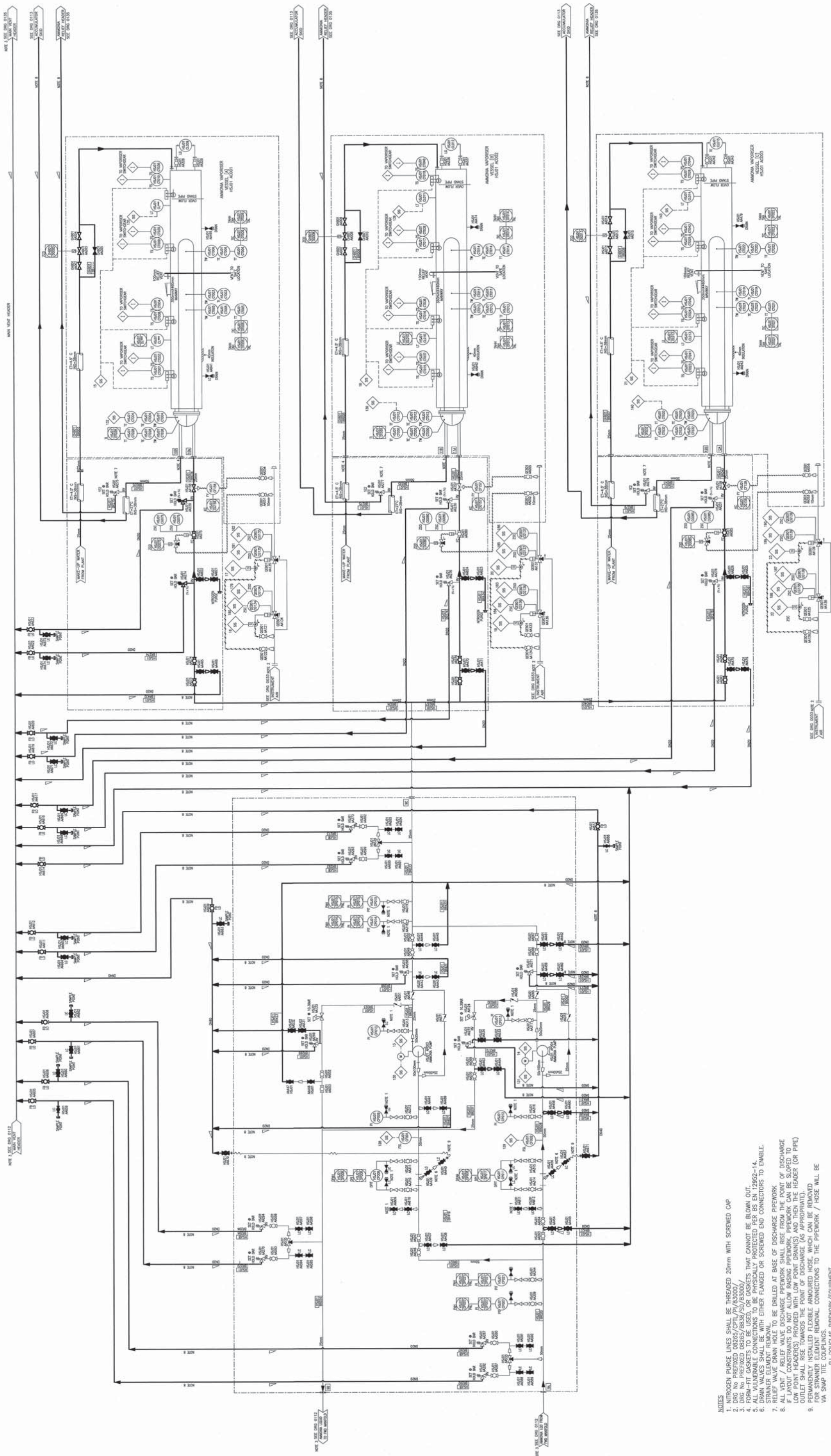
	PERCENT	VALUE	VALUE
100%			
90%			
80%			
70%			
60%			
50%			
40%			
30%			
20%			
10%			
0%			

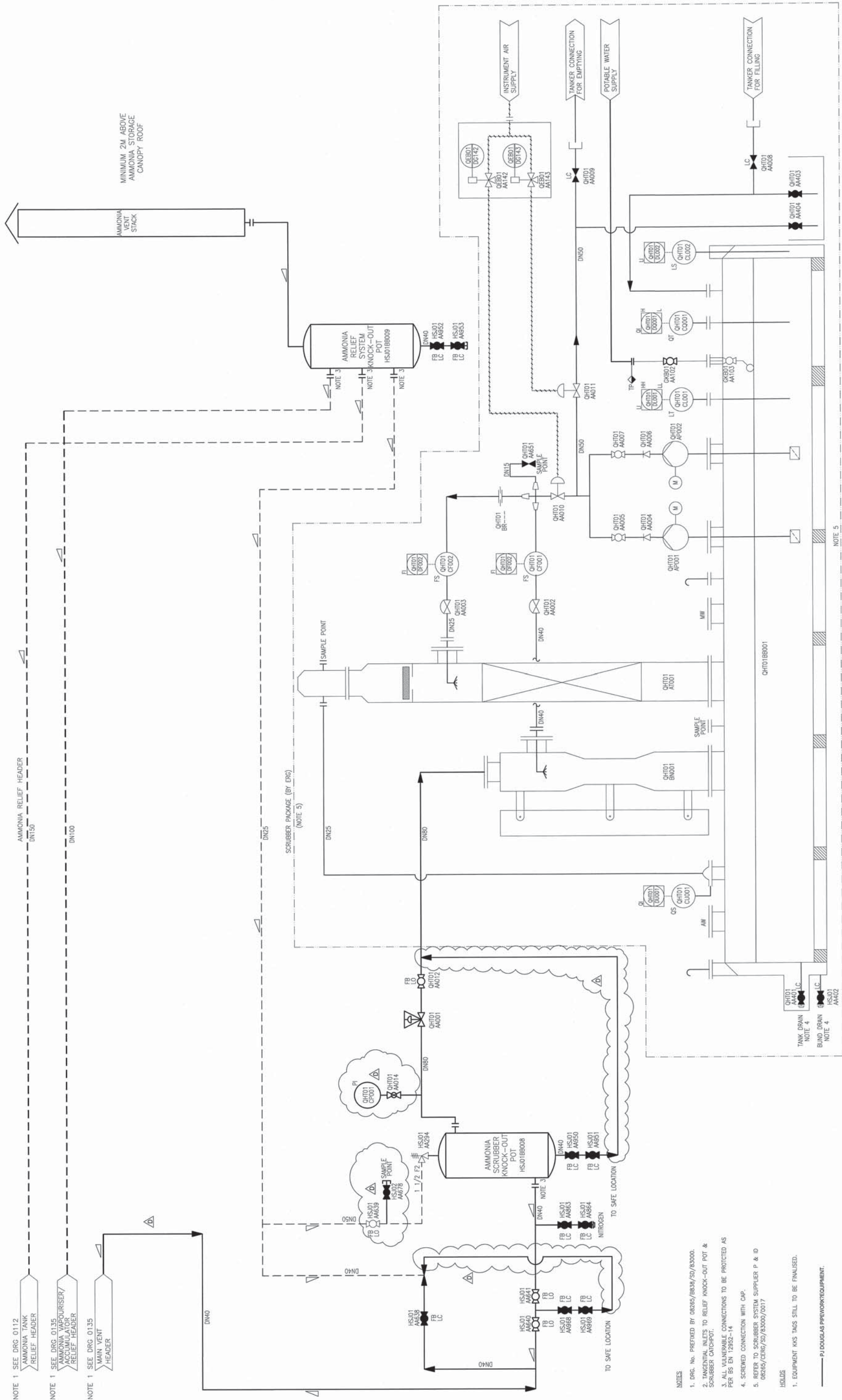
[illegible]

SKD BY PJD
AMMONIA FORWARDING MANIFOLD

BRIEF REPORT

13	14
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HOLDS

1. EQUIPMENT KKS TAGS STILL TO BE FINALISED.

— PJ DOUGLAS PIPEWORK?EQUIPMENT.

NOTES

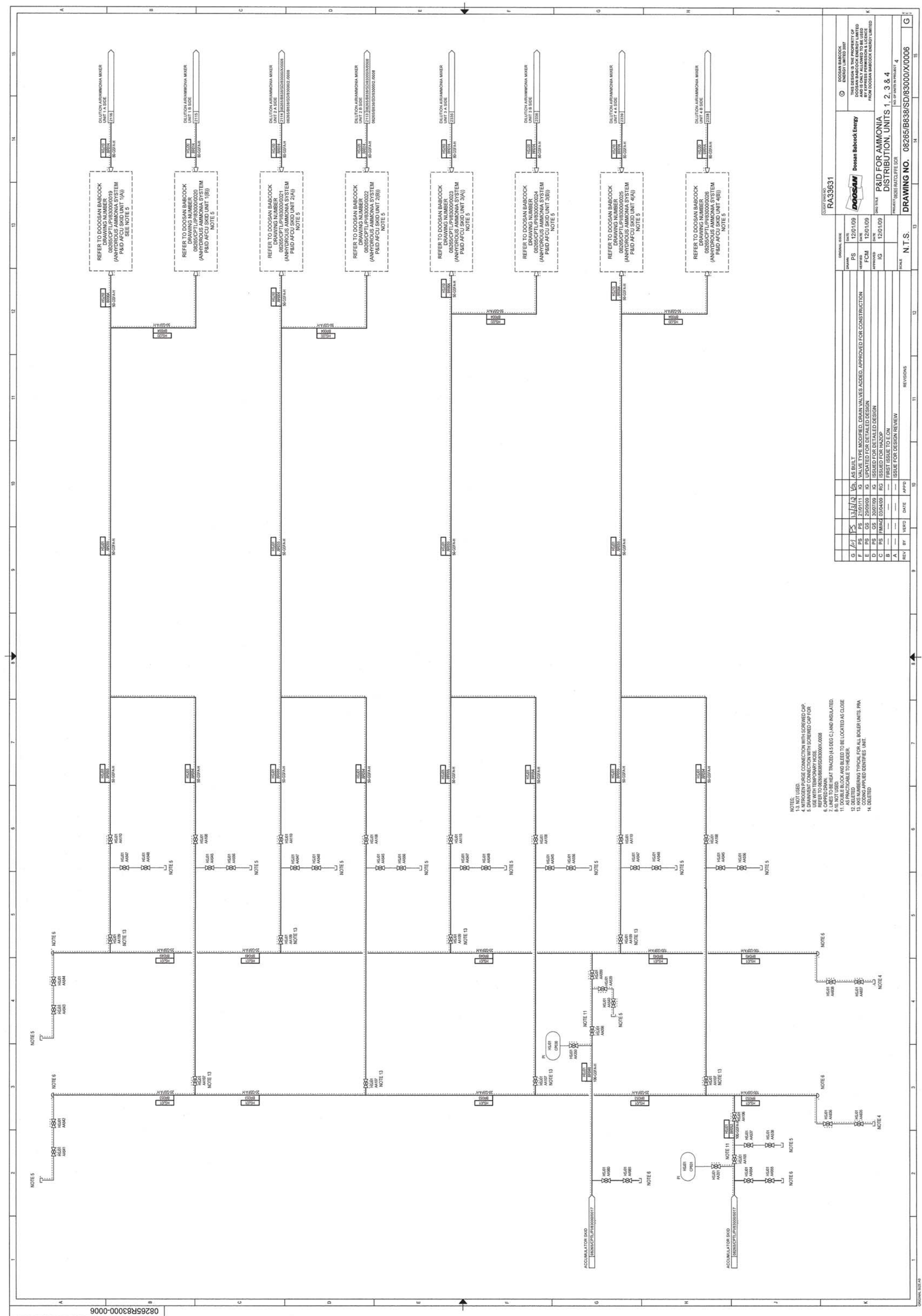
1. DRG. No. PREFIXED BY 08265/BB38/SD/830000.
2. TANGENTIAL INLETS TO RELIEF KNOCK-OUT POT & SCRUBBER CATCHPOT.
3. ALL VULNERABLE CONNECTIONS TO BE PROTECTED AS PER BS EN 12952-14
4. SCREWED CONNECTION WITH CAP.
5. REFER TO SCRUBBER SYSTEM SUPPLIER P & ID 08265/CERG/SD/830000/0017

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SYSTEM ONLY

CONSTRUCTION

E	GS	3/1/11	5/26/11	Y ₁₀	APPROVED FOR CONSTRUCTION (VENTS & DRAINS SYSTEM ONLY)
D	IR	GS	5/26/11	GS	REDESIGNED FOR CONSTRUCTION
C	GS	GS	10/03/11	GS	REDRAWN TO INCORPORATE HAZOP ACTIONS & RE-ISSUED FOR DESIGN
B	GS	GS	08/03/11	IG	REDRAWN TO INCORPORATE HAZOP ACTIONS
A					FIRST ISSUE INCORPORATING HAZOP ACTIONS

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PROJ TITLE	ANHYDROUS AMMONIA SYSTEM P&ID	
SHEET 5	SHEET 5	
PROJECT	08285 RATCLIFFE SCR	
NO. OF SHEETS	4	

[illegible]

NOTES:

13. NOT USED
14. WIRE ROPE CONNECTION WITH SCORED CAP.
4. WIRE ROPE CONNECTION WITH SCORED CAP FOR 3/4" WITH TEMPORARY HESS.
- REFER TO 4026380380350300001.0008
6. CAPPED DRAIN
7. LINES TO BE HEAT TRACED (4.5 DEG C) AND INSULATED
- 8-9. NOT USED
11. DOUBLE BLOCK AND BLEED TO BE LOCATED AS CLOSE AS PRACTICABLE TO HEADER.
12. DELETED
13. KMS NUMBERING TYPICAL FOR ALL BOILER UNITS PRA COOKING APPLIED IDENTITIES UNIT.
14. DELETED

REFERENCIAS DE CONSULTA

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