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December 10, 2019

The Board of Commissioners of Public Utilities  
Prince Charles Building  
120 Torbay Road, P.O. Box 21040  
St. John's, NL A1A 5B2

**Attention: Ms. Cheryl Blundon**  
**Director Corporate Services & Board Secretary**

Dear Ms. Blundon:

**Re: The Board's Investigation and Hearing into Supply Issues and Power Outages on the Island Interconnection System – Winter Readiness Planning Report – Final Report**

Further to the Board's correspondence of October 13, 2016, please find enclosed one original plus 12 copies of Hydro's 2019-2020 Winter Readiness Planning Report – Final Report.

Should you have any questions, please contact the undersigned.

Yours truly,

**NEWFOUNDLAND AND LABRADOR HYDRO**

A handwritten signature in blue ink that reads "Shirley A. Walsh".

---

Shirley A. Walsh  
Senior Regulatory Counsel  
SAW/las

Encl.

cc: **Newfoundland Power**  
Mr. Gerard M. Hayes

**Consumer Advocate**  
Mr. Dennis M. Browne, Q.C, Browne Fitzgerald Morgan & Avis

**Industrial Customer Group**  
Mr. Paul L. Coxworthy, Stewart McKelvey  
Mr. Denis J. Fleming, Cox & Palmer

Mr. Danny Dumaresque

Ms. C. Blundon  
Public Utilities Board

2

ecc: **Board of Commissioners of Public Utilities**

Ms. Jacqui Glynn  
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PUB Official Email

**Newfoundland Power**

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Mr. Philip Raphals, The Helios Centre

**Teck Resources Limited**

Mr. Shawn Kinsella



# 2019–2020 Winter Readiness Planning Report

**December 10, 2019**

A report to the Board of Commissioners of Public Utilities





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## 1.0 Background and Introduction

The Board of Commissioners of Public Utilities (“Board”), in correspondence dated October 13, 2016, directed Newfoundland and Labrador Hydro (“Hydro”) to provide an annual report detailing its winter readiness (“WR”) planning. This report, for the 2019–2020 winter season, addresses the following items as requested by the Board:

1. The status of Annual Work Plan (“AWP”) items, in the format previously provided to the Board, for Hydro’s generating plants and transmission and terminal stations, including the completion date, outstanding items to complete, and any risks to completion or as a result of failure to complete;
2. A description and schedule for all outstanding 2019 capital projects for Hydro’s generating plant and transmission and terminal stations, including progress on completion status to date and expected completion date;
3. The identification of all equipment and plant testing to be carried out in advance of the winter period (generation plant, emergency diesels, black start generators, fire systems, transmission system equipment), including progress on completion status to date;
4. The planned generation outage schedule for the period September to December 31, 2019, including an explanation for any planned outages extending beyond December 1, 2019;
5. An update of critical spares assessment and procurement;
6. The forecast loads and expected generation capacity and reserves (setting out the basis for calculation) for the upcoming winter, as of December 1, 2019, including capacity assistance agreements in place or planned; and,
7. An identification of any risks that could impact the WR of assets as of December 1, 2019 and associated contingency plans.

This report also includes additional details in Section 7 in response to correspondence received from the Board on August 28, 2019.

1 Information presented in this report covers both the Island Interconnected System and the Labrador  
2 Interconnected System as of December 1, 2019. There are no WR activities that were completed after  
3 December 1, 2019 and before December 10, 2019. Activities that will be completed after December 10,  
4 2019 are:

- 5 **1.** Return to service of Unit 229 at the St. Anthony Diesel Plant;
- 6 **2.** Completion of additional black start test for the Stephenville Gas Turbine;
- 7 **3.** Return of the Stephenville Gas Turbine to full capacity; and
- 8 **4.** Securing of a spare gas turbine engine.

9 As previously reported, the overhaul (PM 9) of Unit 1 in Bay d’Espoir is deferred to 2020 and will be  
10 executed following the 2019–2020 winter period. Unit 1 is fully available for this winter season as  
11 further discussed in Section 8.0.

12

13 Hydro will continue to track these activities, manage identified risks, and provide an update to the Board  
14 on January 17, 2020.

## 15 **2.0 Annual Work Plan and Winter Readiness Status**

16 Hydro’s AWP integrates all planned activities for the year (i.e., corrective maintenance (“CM”),  
17 preventive maintenance (“PM”), and capital project support) that are critical to safe and reliable  
18 production and transmission of electricity. Hydro regularly measures the progress of its AWP execution,  
19 in comparison with the plan, and is able to track the AWP status down to the level of individual work  
20 plan items. The individual AWP’s for various assets are incorporated into an integrated AWP. While some  
21 AWP activities are planned for completion through December, those tagged as WR activities were  
22 planned for completion by December 1, 2019

23

24 In previous years, Network Services activities were included with Transmission and Rural Operations. For  
25 2019 reporting, AWP and WR activities for Network Services are shown separately. This approach aligns  
26 with Hydro’s operational organization and provides added visibility to this important function.

27

28 This report provides a consolidated summary of operation and maintenance progress, both for the  
29 entire AWP (i.e., first chart in each set) and the WR tasks (i.e., second chart in each set), as of December  
30 1, 2019, for each of the following areas of operations:



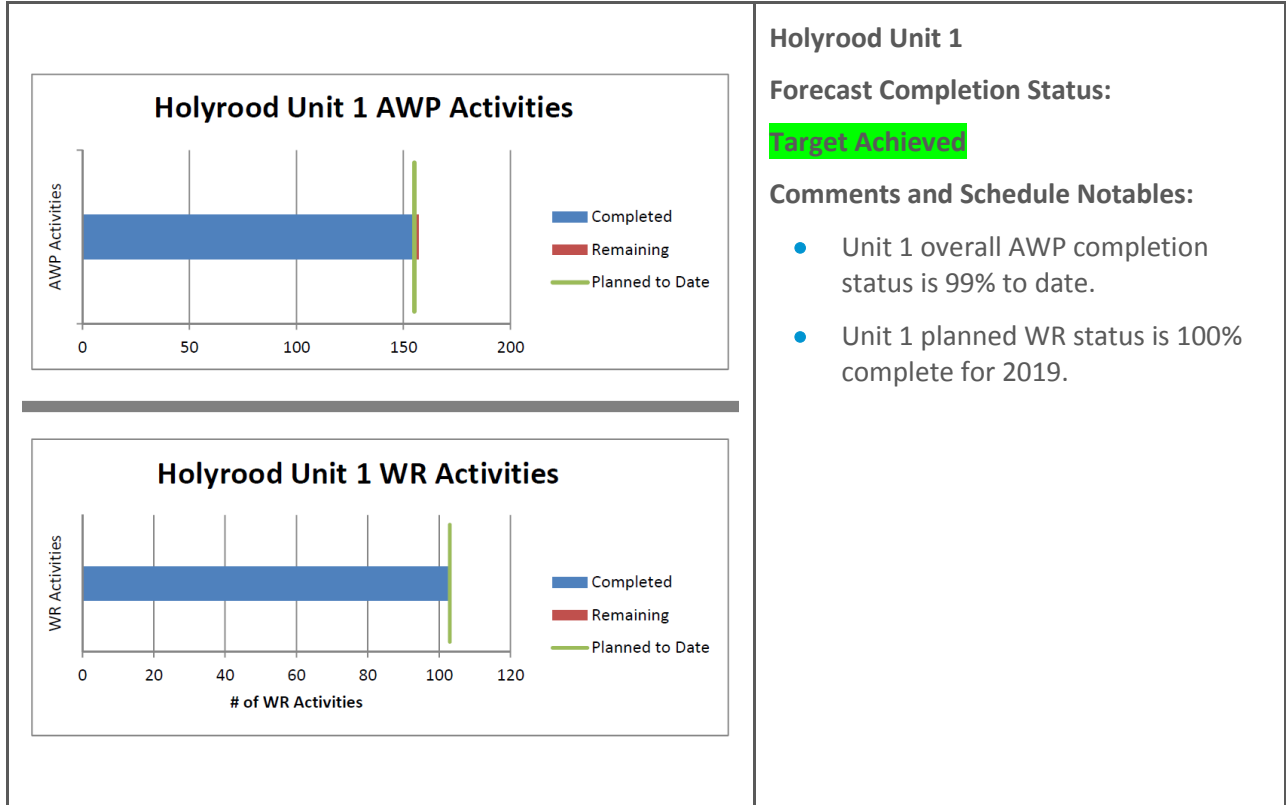
- 1     **1.**   Holyrood Thermal Generating Station (“Holyrood TGS”):
  - 2         **a.**   Units 1, 2, and 3; and
  - 3         **b.**   Balance of Plant, including black start diesels.
- 4     **2.**   Gas Turbines:
  - 5         **a.**   Holyrood;
  - 6         **b.**   Hardwoods;
  - 7         **c.**   Stephenville; and
  - 8         **d.**   Happy Valley.
- 9     **3.**   Hydraulic Generation:
  - 10        **a.**   Bay d’Espoir;
  - 11        **b.**   Cat Arm;
  - 12        **c.**   Hinds Lake;
  - 13        **d.**   Paradise River;
  - 14        **e.**   Upper Salmon; and
  - 15        **f.**   Granite Canal.
- 16    **4.**   Transmission and Rural Operations for the Island Interconnected System and Labrador  
17    Interconnected System:
  - 18        **a.**   Transmission; and
  - 19        **b.**   Terminal Stations.
- 20    **5.**   Network Services.

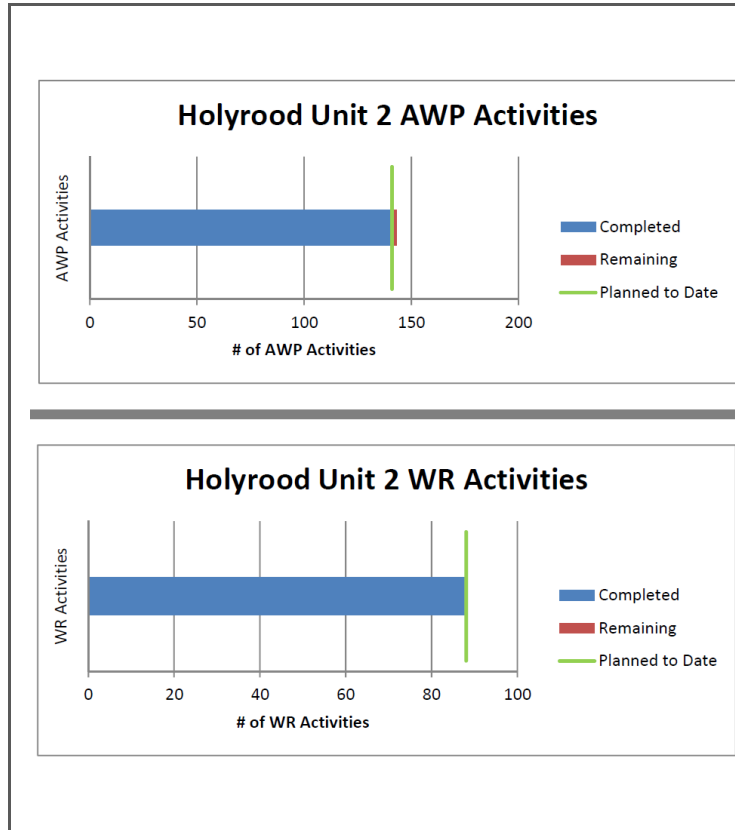
21    Each chart in Section 2.0 includes the completed and remaining operations and maintenance AWP and  
22    WR tasks, as well as an indication of the planned task completion target to date. A text box adjacent to  
23    each chart set indicates Hydro’s forecasted completion status as of December 1, 2019 in relation to AWP  
24    and WR activities (i.e., Green: On Target, Yellow: Caution – Recovery Required, Red: Target Will Not be  
25    Fully Met). Relevant highlights are also provided.

26  
27    Refer to Section 3.0 and Appendix A for the status of capital projects that include additional WR tasks.

1 **2.1 Thermal Generation**

- 2 The status of AWP and WR execution at the Holyrood TGS is summarized in the charts below. As noted,  
 3 all planned 2019 WR work was completed by December 1, 2019.





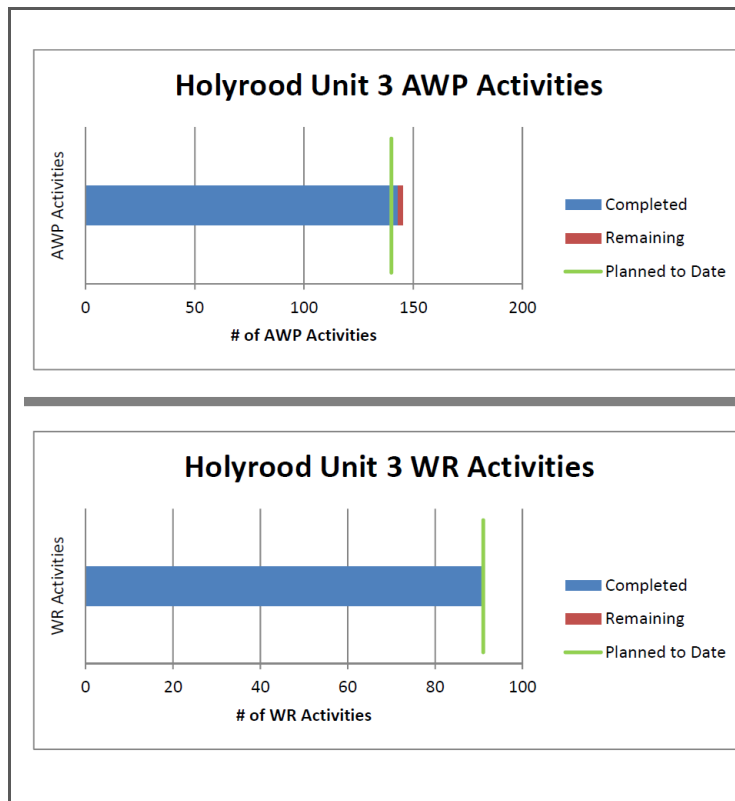
**Holyrood Unit 2**

**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Unit 2 overall AWP completion status is 99% to date.
- Unit 2 planned WR status is 100% complete for 2019.



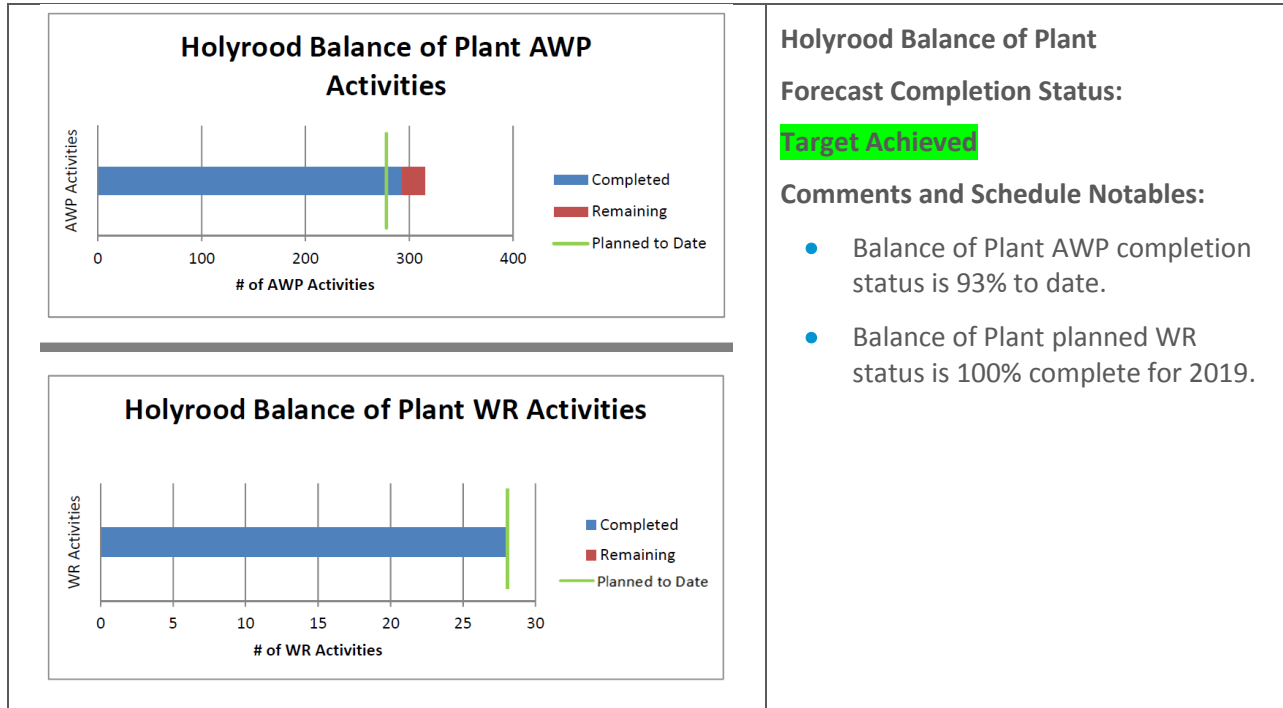
**Holyrood Unit 3**

**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Unit 3 overall AWP completion status is 99% to date.
- Unit 3 planned WR status is 100% complete for 2019.

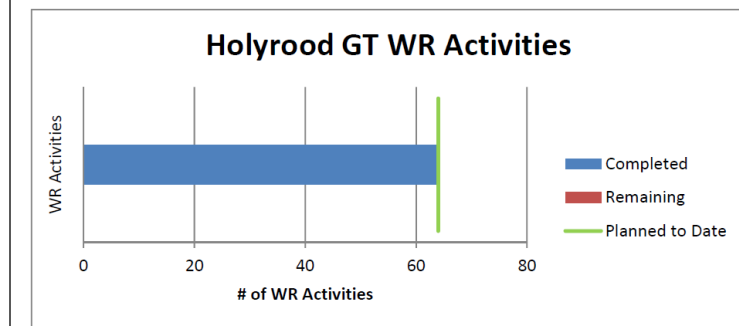
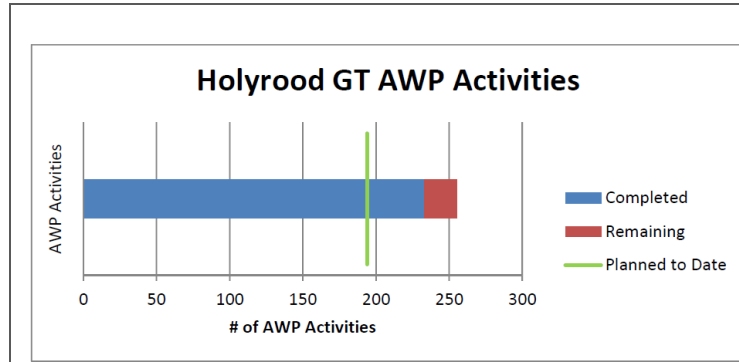


1 **2.2 Gas Turbine Generation**

2 The current status of AWP and WR execution at the Holyrood, Hardwoods, Stephenville, and Happy  
 3 Valley Gas Turbines are summarized in the following charts. Planned operations and maintenance WR  
 4 work for all gas turbines was completed by December 1, 2019.

5

6 The planned black start test for the Stephenville Gas Turbine was completed before December 1, 2019;  
 7 however, the test was not successful and identified the need for CM. The corrective maintenance is  
 8 complete and an additional test is scheduled for December 13, 2019. Refer to Section 8.0 for additional  
 9 information.



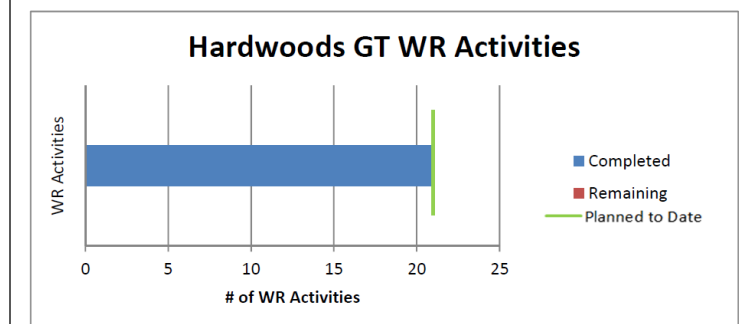
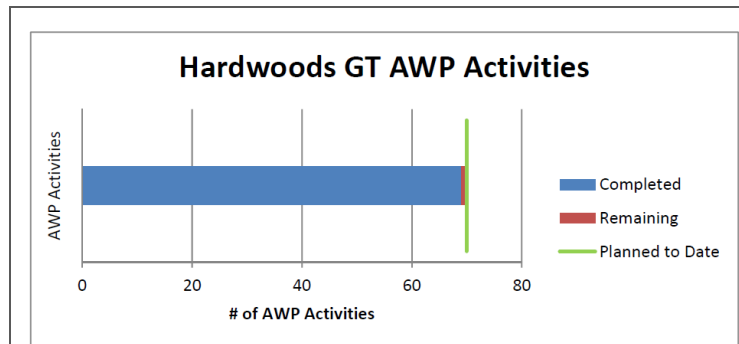
**Holyrood Gas Turbine**

**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Holyrood Gas Turbine overall AWP completion status is 91% to date.
- Holyrood Gas Turbine planned WR status is 100% complete for 2019.



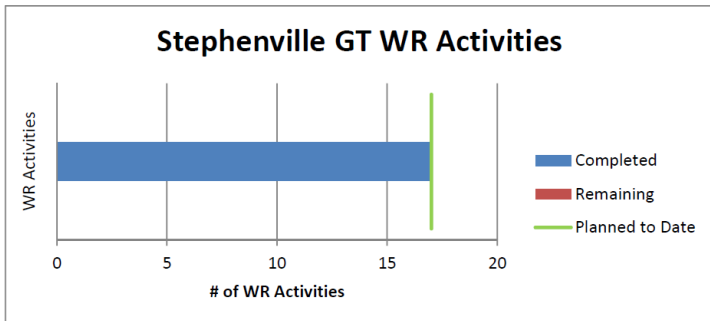
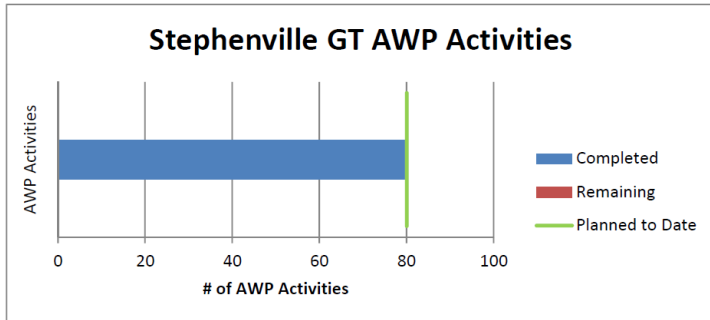
**Hardwoods Gas Turbine**

**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Hardwoods Gas Turbine overall AWP completion status is 99% to date.
- Hardwoods Gas Turbine planned WR status is 100% complete for 2019.



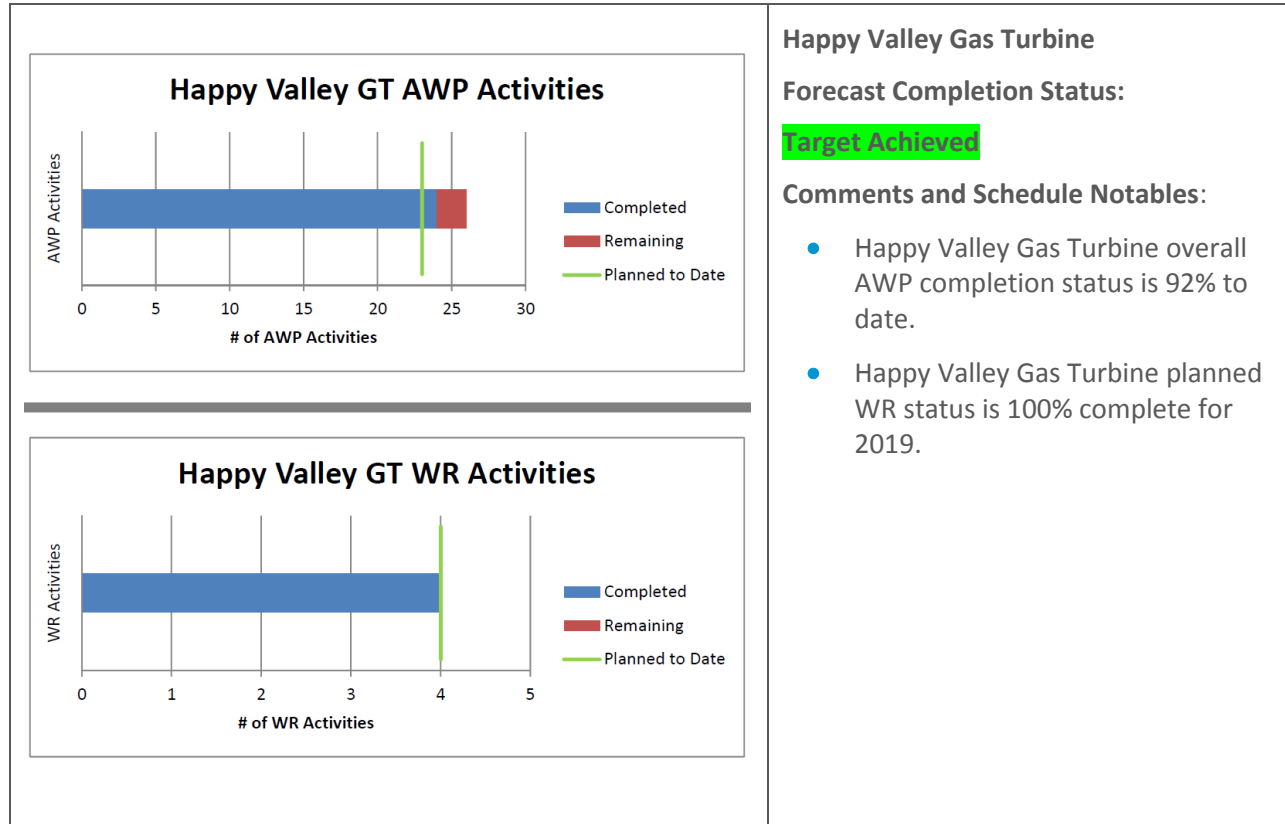
**Stephenville Gas Turbine**

**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Stephenville Gas Turbine planned AWP completion status is 100% complete for 2019.
- Stephenville Gas Turbine planned WR status is 100% complete for 2019.
- Additional black start test scheduled for December 13, 2019.
- WR activities associated with the End B engine overhaul were incorporated into the capital project for engine refurbishment. This capital project is not complete. Refer to Section 8.0.
- Refurbishment of a spare gas turbine engine, for use at Stephenville or Hardwoods, was approved as a supplemental capital project in Board Order No. P.U. 33(2019). This capital project is not complete. Refer to Section 8.0.



**Happy Valley Gas Turbine**

Forecast Completion Status:

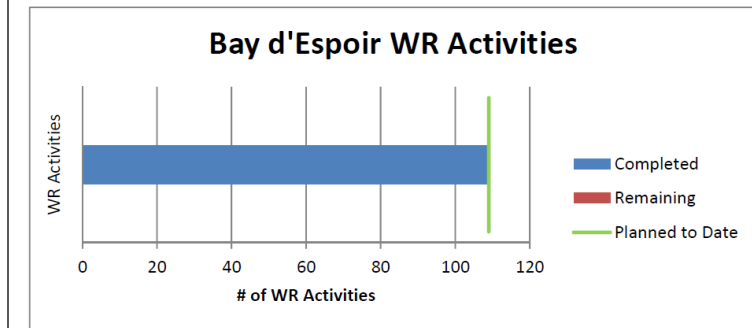
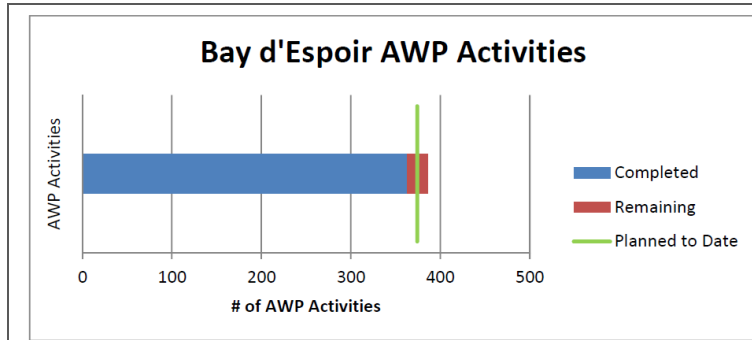
**Target Achieved**

Comments and Schedule Notables:

- Happy Valley Gas Turbine overall AWP completion status is 92% to date.
- Happy Valley Gas Turbine planned WR status is 100% complete for 2019.

1 **2.3 Hydraulic Generation**

2 The current status of AWP and WR execution at Bay d’Espoir and other hydraulic generation facilities is  
 3 summarized in the charts below. All planned operations and maintenance WR activities were completed  
 4 by December 1, 2019.



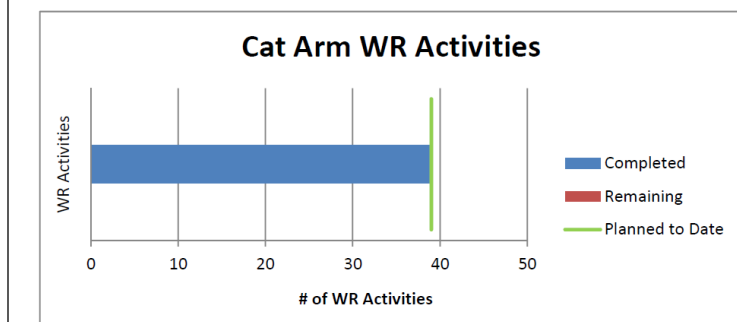
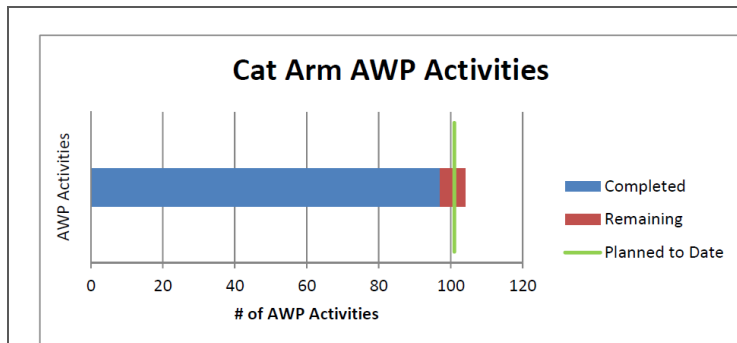
**Bay d'Espoir Hydraulic Units**

**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Bay d'Espoir overall AWP completion status is 94% to date.
- Bay d'Espoir planned WR status is 100% complete for 2019.
- The planned overhaul of Unit 1 is a capital project that has been deferred for execution after the 2019–2020 winter season. Refer to Section 8.0.



**Cat Arm Hydraulic Units**

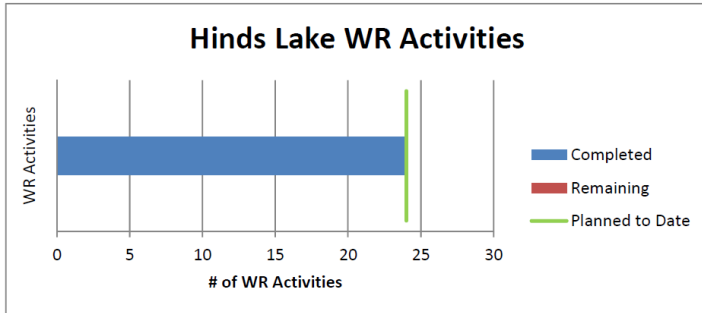
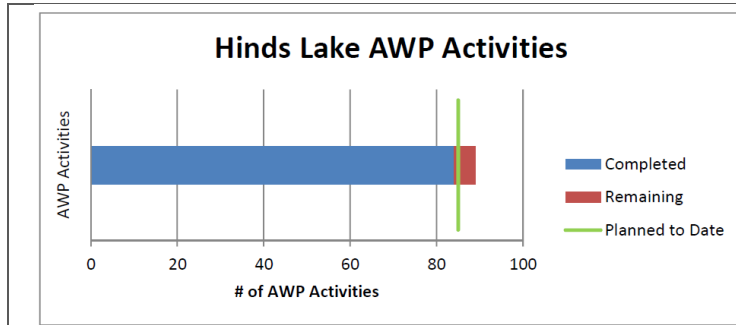
**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Cat Arm overall AWP completion status is 93% to date.
- Cat Arm planned WR status is 100% complete for 2019.



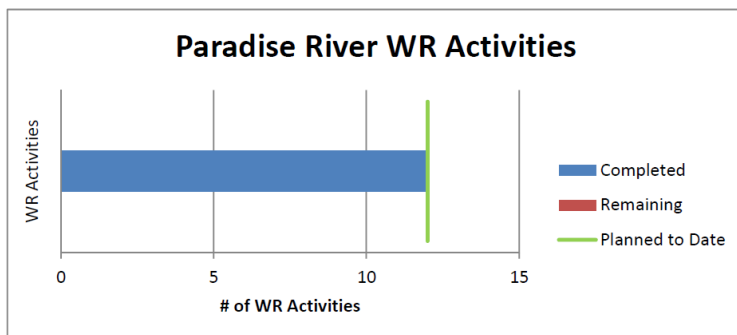
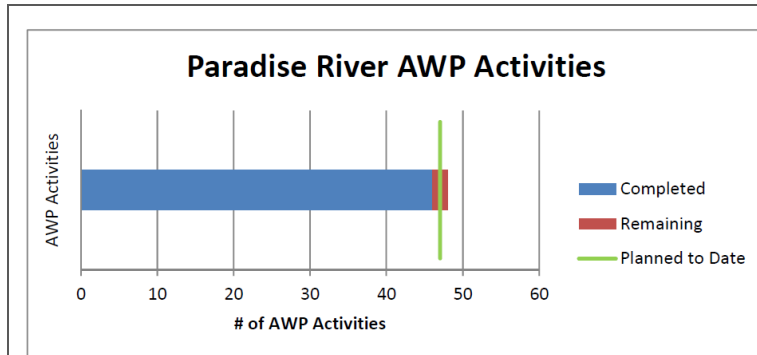


**Hinds Lake Hydraulic Unit**  
**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Hinds Lake overall AWP completion status is 94% to date.
- Hinds Lake planned WR status is 100% complete for 2019.

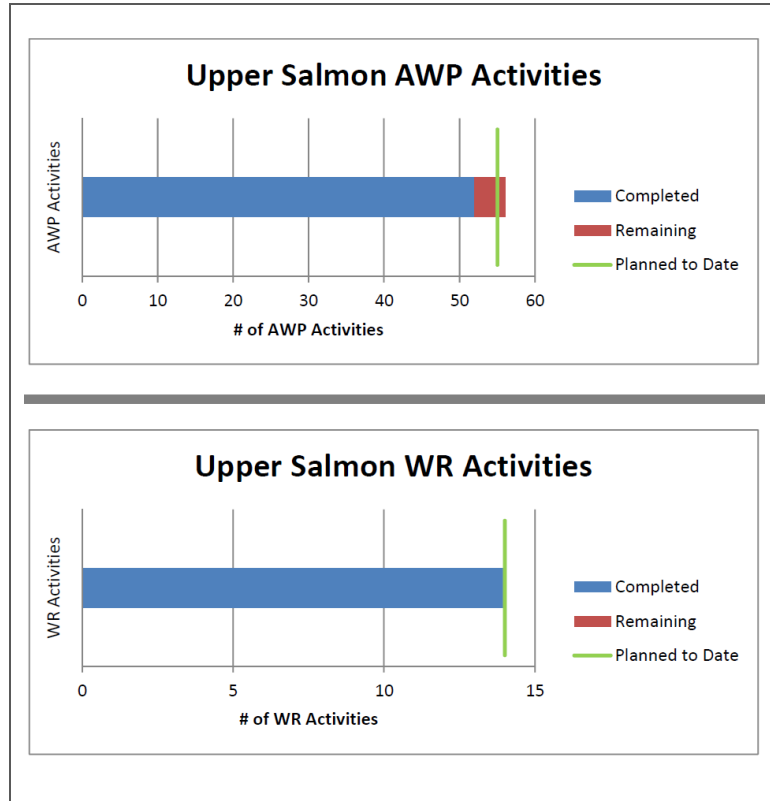


**Paradise River Hydraulic Unit**  
**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- Paradise River overall AWP completion status is 96% to date.
- Paradise River planned WR status is 100% complete for 2019.

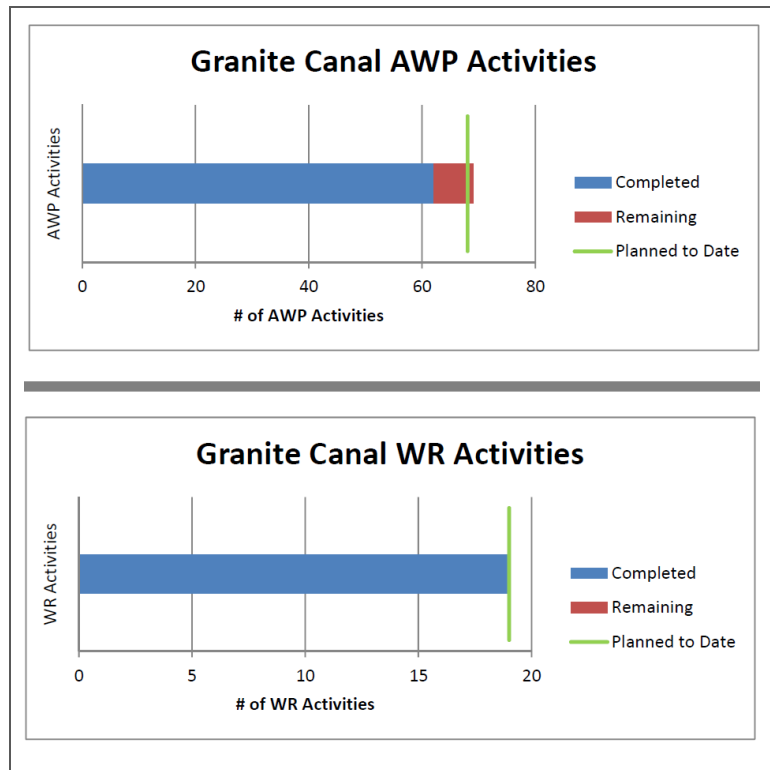


**Upper Salmon Hydraulic Unit**  
Forecast Completion Status:

**Target Achieved**

**Comments and Schedule Notables:**

- Upper Salmon overall AWP completion status is 93% to date.
- Upper Salmon planned WR status is 100% complete for 2019.



**Granite Canal Hydraulic Unit**  
Forecast Completion Status:

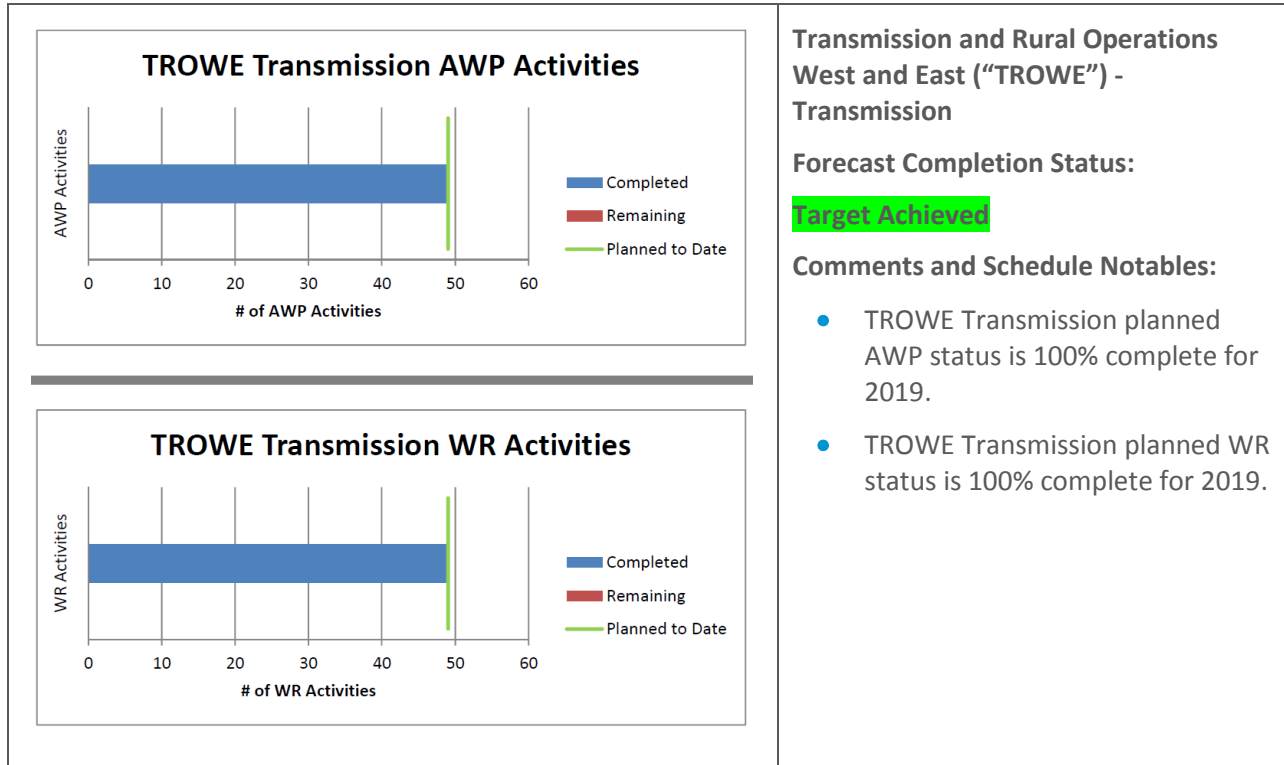
**Target Achieved**

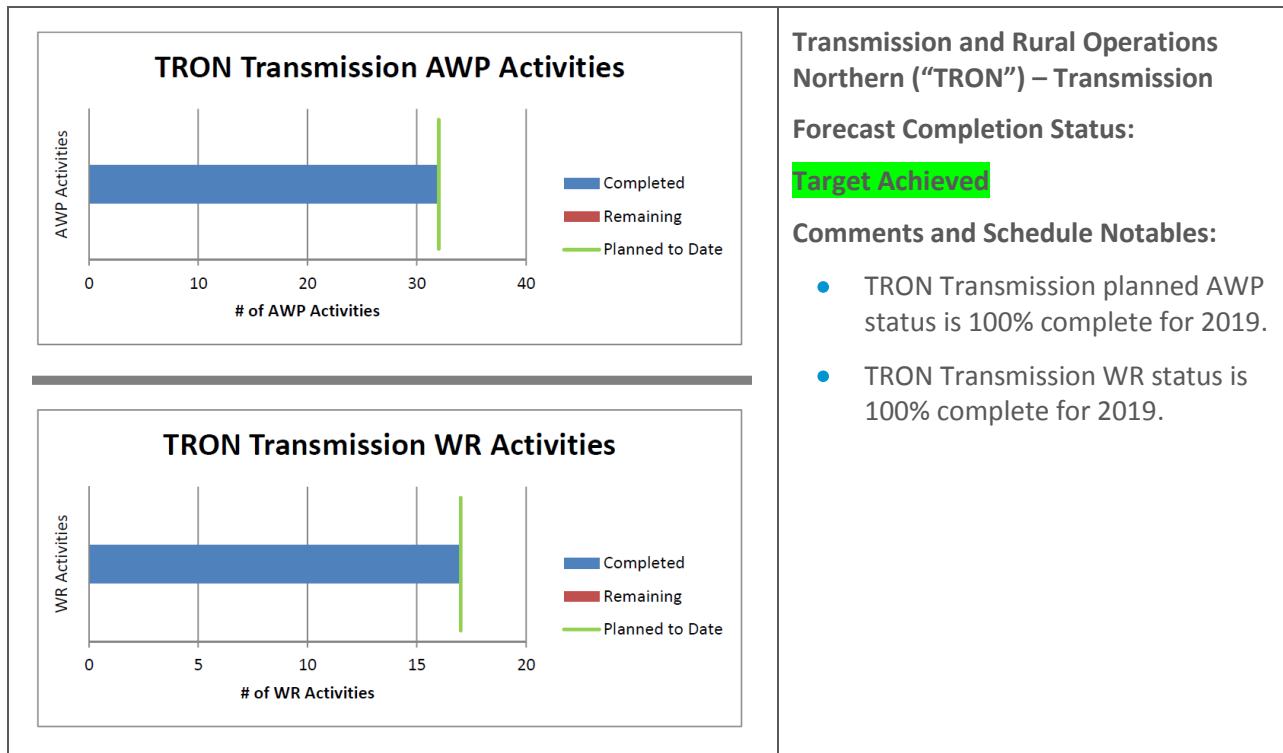
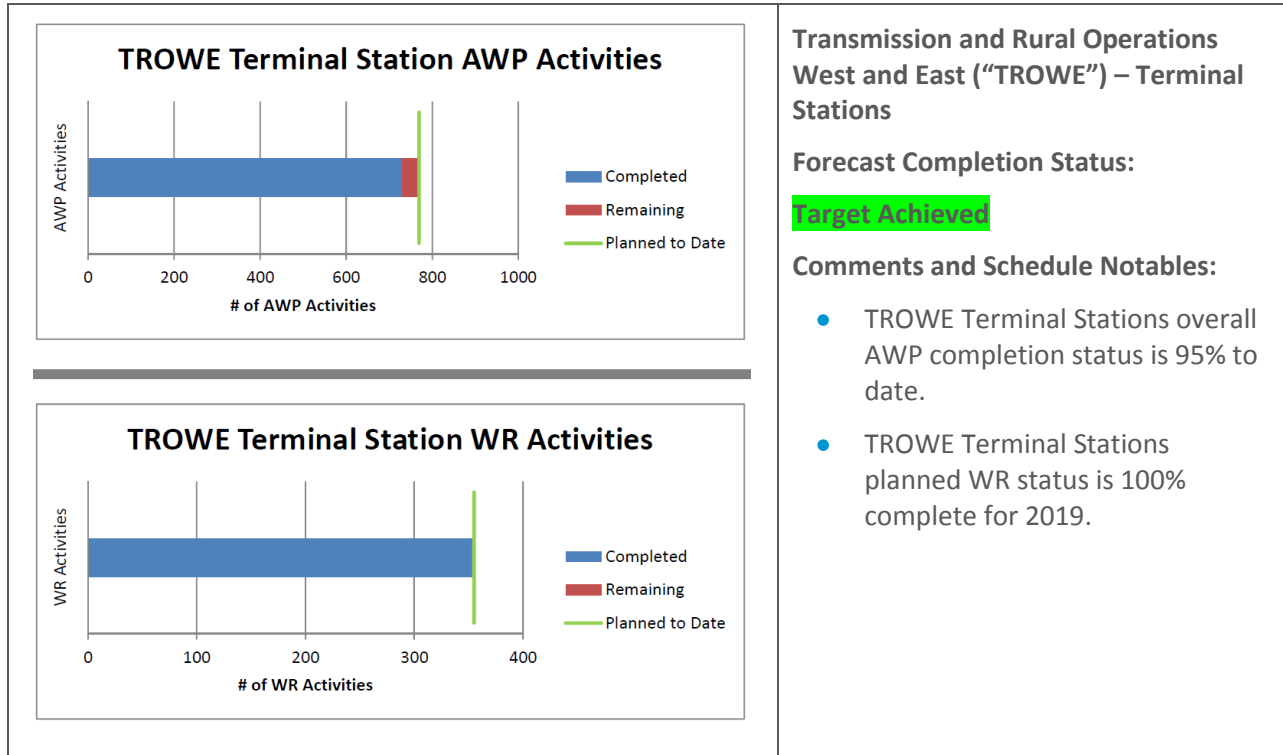
**Comments and Schedule Notables:**

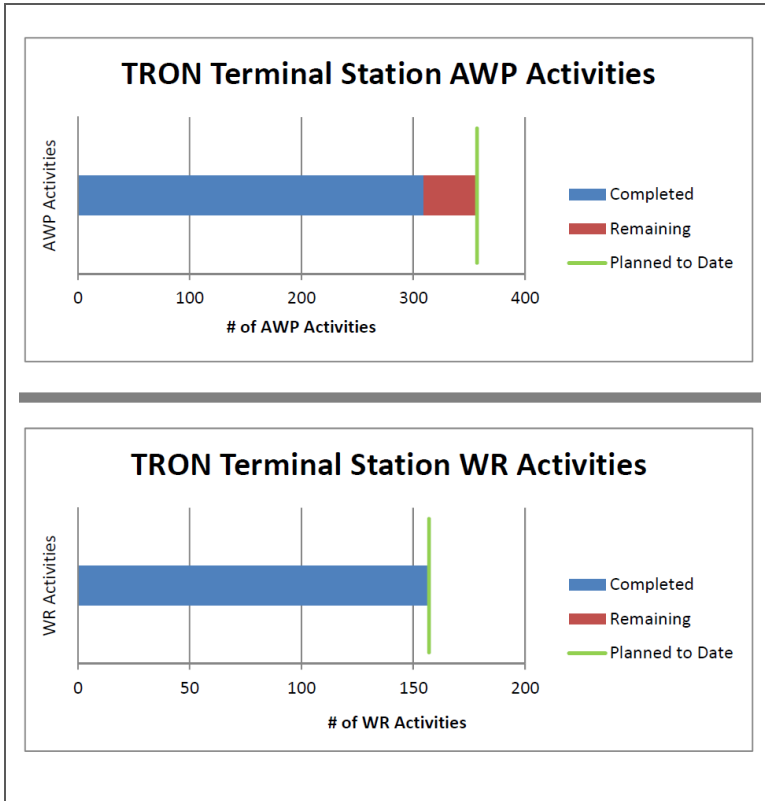
- Granite Canal overall AWP completion status is 90% to date.
- Granite Canal planned WR status is 100% complete for 2019.

1 **2.4 Transmission and Terminal Stations**

2 The current status of AWP and WR execution for transmission line and terminal station facilities on both  
 3 the Island Interconnected System and the Labrador Interconnected System are summarized in the charts  
 4 below. All planned WR activities were completed by December 1, 2019.







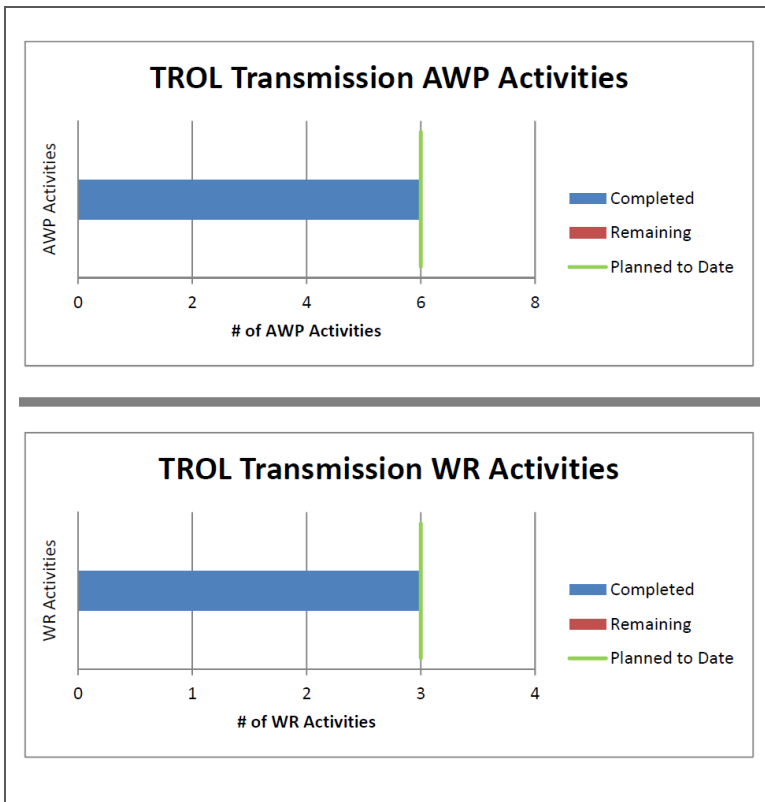
**Transmission and Rural Operations Northern (“TRON”) – Terminal Station**

**Forecast Completion Status:**

**Target Achieved**

**Comments and Schedule Notables:**

- TRON Terminal Stations overall AWP completion status is 86% to date.
- TRON Terminal Stations WR status is 100% complete for 2019.



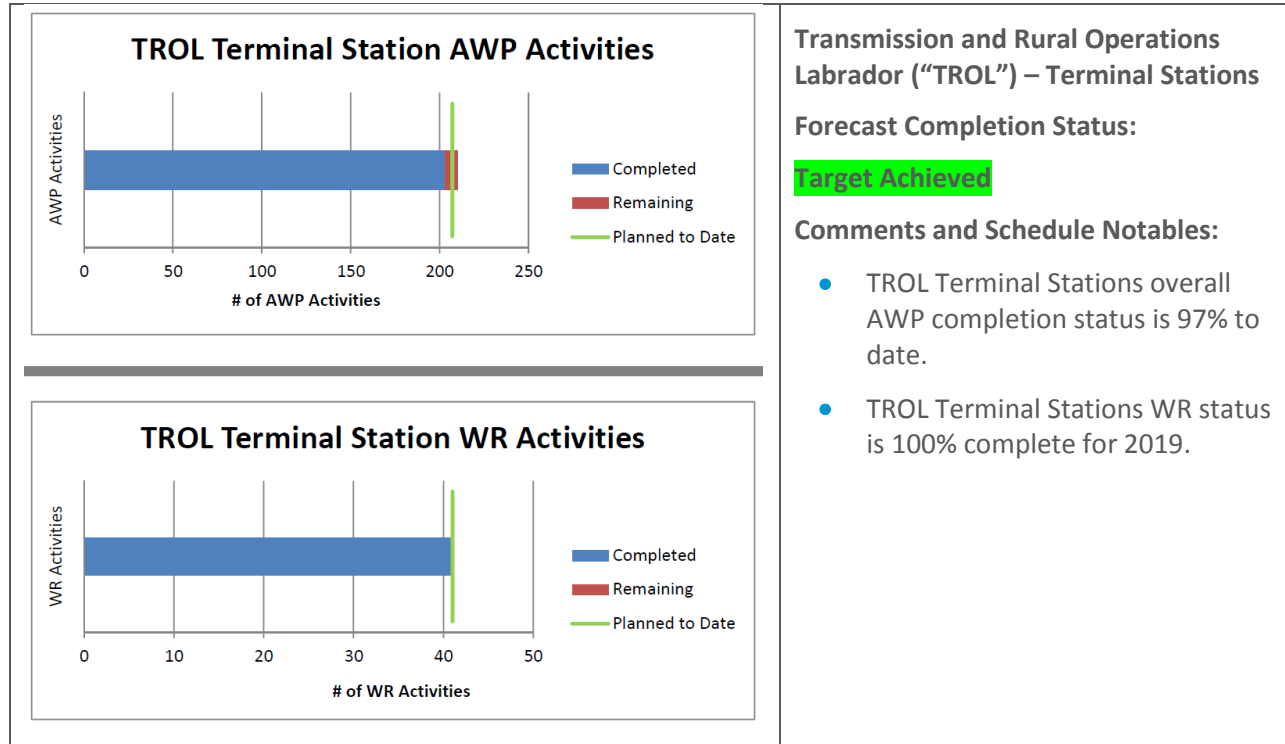
**Transmission and Rural Operations Labrador (“TROL”) – Transmission**

**Forecast Completion Status:**

**Target Achieved**

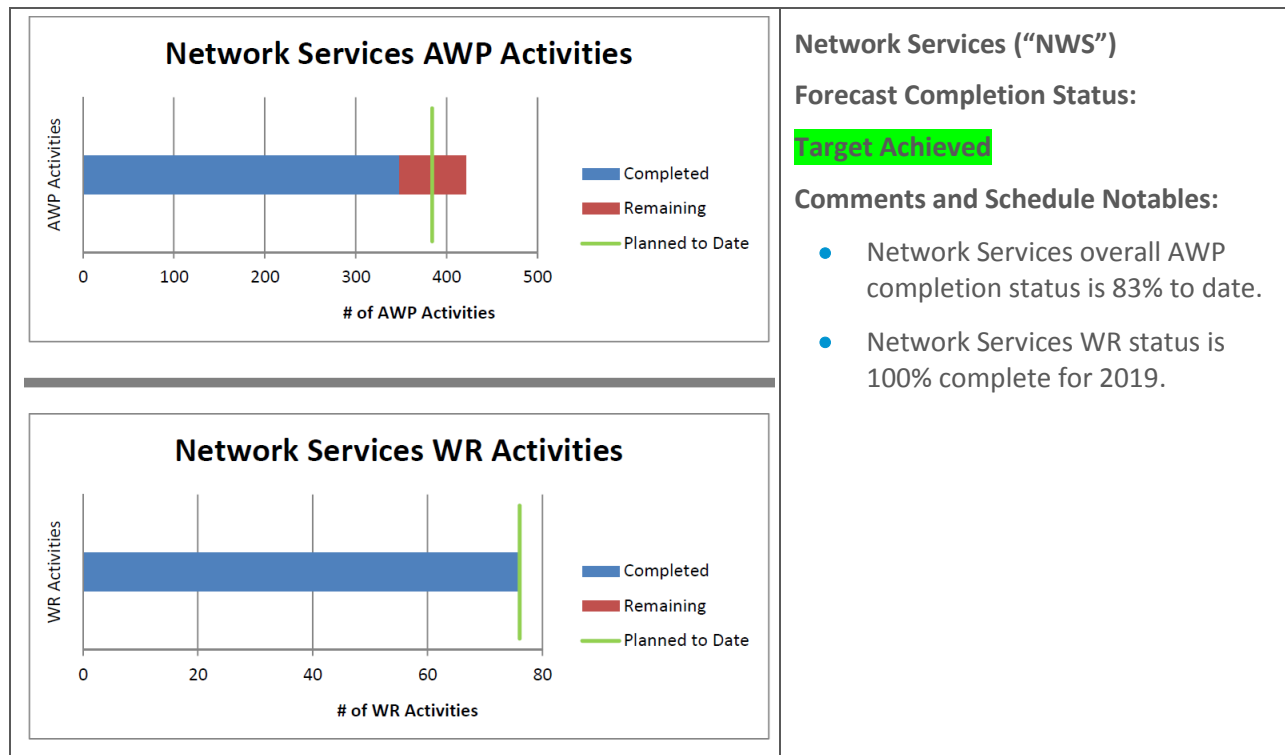
**Comments and Schedule Notables:**

- TROL Transmission planned AWP status is 100% complete for 2019.
- TROL Transmission WR status is 100% complete for 2019.



1 **2.5 Network Services**

- 2 The current status of AWP and WR execution for Network Services is summarized in the charts below.
- 3 All planned WR activities were completed by December 1, 2019.



### 3.0 Status of Winter Readiness for Capital Projects

Appendix A of this report provides the status of 2019 planned capital projects that include scope related to 2019–2020 WR for the Island Interconnected System and the Labrador Interconnect System. Table 1 summarizes the status of the WR scope of these projects by asset category.

**Table 1: Status of Capital Projects with WR Scope**

Asset Category	Complete as of	Incomplete, Expected	Total
	December 1, 2019	Completion after December 1, 2019	
Hydraulic Generation	3	1	4
Thermal Generation	1	0	1
Gas Turbine Generation	2	2	4
Terminal Stations	7	0	7
Transmission	1	0	1
<b>Total</b>	<b>14</b>	<b>3</b>	<b>17</b>

In November 2019, the project to refurbish a gas generator engine as a spare for Hardwoods and Stephenville Gas Turbines was added to the list of projects that include scope related to 2019–2020 WR for the Island Interconnected System. The project was approved by the Board (P.U. 33(2019)) on October 15, 2019 as a supplemental expenditure.

As of December 1, 2019, the WR scope for 14 of the 17 capital projects is complete. The WR scopes for three projects: (1) the PM 9 inspection for Unit 1 at Bay d’Espoir, (2) the overhaul of a gas generator for the Stephenville Gas Turbine, and (3) the refurbishment of a gas generator as a spare for Hardwoods and Stephenville Gas Turbines will be completed after December 1, 2019. These projects are further discussed in Appendix A and Section 8.0.

### 4.0 Plant and Equipment Testing

To ensure WR, Hydro follows a structured checklist for planning and documenting its testing and inspection of plant and equipment in its thermal and hydroelectric generation facilities, as provided in Appendix B and C, respectively.

In its transmission, terminal station, network services, and gas turbine operations, Hydro relies on its AWP process to plan and track its WR testing and inspection of these assets. The AWPs in these areas include planned PM activities and CM items; both of which involve inspection and testing. Planned PMs

1 and CMs, and any other activities pertaining to WR, are flagged inside the respective AWP items and may be  
2 tracked separately from other AWP items that are not WR related.

### 3 **4.1 Thermal Generation**

4 WR testing of generating equipment in Thermal Generation is focused primarily around annual unit  
5 maintenance outages. Following these annual outages, units are run up and synchronized and all  
6 systems are verified before the unit's operating status is determined and preparedness is confirmed.  
7 Unit load tests are performed at this time as well. It can take a period of time for system conditions to  
8 allow for all required load testing. The WR testing protocol includes the testing of appropriate Balance of  
9 Plant components, including the black start diesel generators.<sup>1</sup>

10

11 The current status of equipment/plant testing for Thermal Generation is indicated in Appendix B of this  
12 report. Consistent with the generation outage schedule shown in Appendix D, all units have been  
13 returned to service and all testing has been completed. System restrictions (system load too low) have  
14 not permitted Units 1 and 2 to operate at full load. Unit 1 has been operated to 160 MW and Unit 2 to  
15 165 MW. Unit performance at these loads indicates that there are no risks in achieving full load  
16 capability on both units and full load testing will be completed when system demands allow. Unit 3 has  
17 been operated at 150 MW, which is the maximum capability for this unit.

### 18 **4.2 Gas Turbine Generation**

19 Examples of WR activities that are included in the AWP work scopes and maintenance plans for the  
20 Holyrood, Hardwoods, Stephenville, and Happy Valley Gas Turbines include the following:

- 21 a. PMs and CMs for major components and auxiliary systems;
- 22 b. Black start testing;
- 23 c. Monthly operational testing; and
- 24 d. Execution of capital upgrades and refurbishment.

25 AWP charts, which include WR activities, are shown in Section 2.2 of this report. Black start testing has  
26 been completed at the Happy Valley, Hardwoods and Holyrood Gas Turbines. The planned black start

---

<sup>1</sup> The black start diesel generators are run-up to speed and synchronized on a weekly basis to confirm their availability. The function of all associated breakers were also tested and confirmed.



1 test for the Stephenville Gas Turbine was also completed before December 1, 2019; however, the  
2 planned test identified the need for CM before additional testing could be performed. The additional  
3 black start test is scheduled for December 13, 2019. Refer to Section 8.0.

4  
5 Operational testing of all gas turbines has been carried out throughout the year as planned.

### 6 **4.3 Hydraulic Generation**

7 WR testing of generating equipment in Hydraulic Generation is focused primarily around annual unit  
8 maintenance outages. Following these annual outages, units are run up and synchronized and all  
9 systems are verified before the unit’s operating status is determined and preparedness is confirmed.  
10 Unit load tests are also performed at this time. The WR testing protocol includes the testing of  
11 appropriate Balance of Plant components.

12  
13 The current status of equipment/plant testing for Hydraulic Generation is indicated in Appendix C of this  
14 report. All inspection and testing of the hydraulic generation facilities was completed by December 1,  
15 2019. All generating units and balance of plant systems are winter ready.

### 16 **4.4 Transmission and Terminal Stations**

#### 17 **4.4.1 Transmission**

18 The summary of maintenance, refurbishment, and replacement criteria that Hydro uses for its  
19 transmission lines was included in the “Transmission and Terminal Station Asset Management Execution  
20 Report”, submitted to the Board on April 11, 2019. The report includes criteria for Wood Pole and Steel  
21 Structure Line Management Programs, helicopter patrols, ground patrols, infrared inspections, wood  
22 pole treatment, and right-of-way maintenance.

#### 23 **4.4.2 Terminal Stations**

24 The “Terminal Station Asset Management Overview” document includes the maintenance,  
25 refurbishment, and replacement criteria used by Hydro for Terminal Station assets. Version 4 of this  
26 document was included in the “Terminal Station Refurbishment and Modernization” project report in  
27 Hydro’s “2020 Capital Budget Application.”

28  
29 In the past 12 months, Hydro has experienced four circuit breaker failures at the Bay d’Espoir terminal  
30 station. Refer to Section 8.0 for commentary.

### 4.4.3 Transmission and Terminal Station Testing

The AWP for both Transmission and Terminal Stations are predominantly comprised of PMs and CMs, which inherently involve inspection and testing. Examples of WR activities that are included in the AWP work scopes include the following:

- a. Transformer PMs and CMs;
- b. Annual exercises on all high voltage circuit breakers;
- c. Exercise of 230 kV circuit breakers from protection during PM inspections;
- d. Infrared scans at all terminal stations;
- e. Annual ultrasonic leak testing on all terminal station air systems; and
- f. Annual helicopter patrol of transmission lines prior to the winter season.

AWP charts, which include WR activities, are shown in section 2.4 of this report. All WR activities were completed by December 1, 2019.

### 4.5 Network Services

The AWP for Network Services is comprised of PMs and CMs, which inherently involve inspection and testing of various assets and systems. AWP charts, which include WR activities, are shown in Section 2.5 of this report. All WR activities were completed by December 1, 2019.

## 5.0 Generation Outage Schedule

Hydro's 2019 Master Generation Outage Schedule for the period September 1 to December 31, 2019 is attached to this report as Appendix D.

Two generating sources are not available at full capacity as of December 1, 2019. One diesel engine ("Unit 229") at the St. Anthony diesel plant is scheduled to return to service on December 13, 2019. Unit 229 is an 850 kW engine and its current schedule for return to service does not present a risk to the Island Interconnected System. The Stephenville Gas Turbine will remain out of service until mid-January 2020 and is further discussed in Section 8.0.

## 6.0 Critical Spares

### 6.1 Overview

In 2014, Hydro completed extensive reviews of its critical spares requirements in all three areas of its generation operations: hydraulic generation; thermal generation (Holyrood TGS); and the gas turbines in Hardwoods and Stephenville. These reviews included a detailed analysis of asset criticality and spare parts in reference to several factors, including impact on generation reliability and replacement part availability. A second phase of spares analysis was completed in 2017 for Hydro’s hydraulic generation facilities and 569 additional items were added to the critical spares list.

Hydro's evaluation of critical spares is an ongoing process with consideration given to asset condition, level of criticality, parts availability/order lead time, and cost. In some cases, a balanced consideration of these factors may result in a decision to not procure into inventory where the risk to reliability is judged to be low and/or other measures are available to mitigate against generation unavailability.

Included in this report is a full update on the status of Hydro’s critical spares, as of December 1, 2019, for the 2019–2020 winter season. This update includes a detailed listing of critical spares requirements for each area of generation operations status of each item.

### 6.2 2019–2020 Winter Season

Hydro’s critical spares status leading into the 2019–2020 winter season is strong. For Thermal Generation (Appendix E), Gas Turbines (Appendix F), and Hydro Generation (Appendix G), a total of 2,515 critical spares have been identified by Hydro’s three generation operations areas. Of this total, 2,366 items are in stock (94%), 47 items are on order (2%) and the remaining 102 items (4%) are in the procurement process or will be ordered as soon as the specification and part numbers are confirmed.

#### 6.2.1 Thermal Generation

As summarized in Table 2, there are eight critical spare stock items currently not in stock. All of these items are on order through Hydro’s Supply Chain Department. Of the eight parts on order, five are from Hitachi for the Unit 3 turbine. Requests to expedite these parts have been made but have been put in a queue by Hitachi while they are filling critical orders from other customers. Should there be a failure of one of these components; Hitachi has committed to give these orders guaranteed priority. These parts would be typically used during a valve outage, which was recently completed in 2019. During this recent

1 valve outage, all turbine valves have been inspected and overhauled and thus there is a very low risk for  
 2 failure.

3  
 4 The remaining three parts are expected to be on site by the end of 2019. The air heater drive coupling  
 5 has arrived since December 1, 2019. The Sunspot Scanner that is currently past the expected delivery  
 6 date of November 25, 2019 is expected to arrive later in December. In the unlikely event that an existing  
 7 sunspot scanner fails, there will not be a significant impact to operations. The outboard bearing liner is  
 8 being refurbished in Ontario and is expected to be returned later this month. These bearings are closely  
 9 monitored and there are no indications that a bearing liner will be required in the near-term.

10  
 11 The complete list of critical spares for Holyrood TGS is provided in Appendix E. Note that this list  
 12 contains three Inventory Status descriptions; “In-Stock”, “Non-Stock”, and “On Order.” “In-Stock” means  
 13 that the part is in inventory; “Non-Stock” means that the part is critical but it is not necessary to keep it  
 14 in stock, for example because the part is readily available locally; and “On Order” means that the part is  
 15 required to be in-stock but is not. For the “Non-Stock” parts, an explanation of the reason why it is  
 16 “Non-Stock” is provided in the “Notes” column in Appendix E.

**Table 2: Critical Spares – Thermal Generation**

<b>Total Identified Critical Spare Items</b>	<b>756</b>
Number of Critical Spare Items In Stock	748
Number of Items On Order	8
Number of Items not yet On Order	0

17 **6.2.2 Gas Turbines**

18 Table 3 summarizes the status of spare parts for the Hardwoods, Stephenville and Holyrood Gas  
 19 Turbines and Appendix F contains detailed lists for each gas turbine.

**Table 3: Critical Spares – Gas Turbine Generation**

	<b>Hardwoods/Stephenville</b>	<b>Holyrood</b>	<b>Total</b>
<b>Total Identified Critical Spare Items</b>	<b>93</b>	<b>463</b>	<b>556</b>
Number of Items In Stock	76	339	415 (75%)
Number of Items On Order	3	36	39 (18%)
Number of Items not yet On Order	14	88	102 (7%)

20 The spares list for the Hardwoods and Stephenville Gas Turbines is detailed in Appendix F and contains  
 21 the critical spares identified for these units. This list contains 93 critical and operational spare items.

1 Approximately 82% (76) of these spares are in-stock. Of the remainder, three are on order, seven are in  
 2 the procurement process and seven require additional engineering prior to procurement.

3  
 4 The spares list for the Holyrood Gas Turbine is also detailed in Appendix F and includes both operational  
 5 and critical spares for this unit. This list contains 463 critical and operational spare items. Greater than  
 6 73% (339) of these spares are in-stock, including all high priority items. Of the remainder, 36 are on  
 7 order, 40 are in the procurement process, and 48 require additional engineering prior to procurement.

8  
 9 Hydro utilized a number of its spare parts to address deficiencies found during the 2019 maintenance  
 10 season. This has resulted in a reduction of the in stock items. These items have been identified and are  
 11 currently on order or in the procurement process.

12  
 13 Of the 39 items on order, one is a capital spare which is expected to be on site by December 13, 2019.  
 14 Thirty-one (31) items identified during capital upgrades at the Holyrood Gas Turbine are expected to be  
 15 onsite by December 31, 2019 and four items by January 31, 2020. Delivery dates for the remaining three  
 16 items are not confirmed; however, Hydro has a small quantity available if needed.

17  
 18 Of the items not yet ordered, the 47 higher priority items are in the procurement process (out for  
 19 quotation, tendering or under review for award) and the 55 lower priority items require further  
 20 engineering and original equipment manufacturer input due to changes in the technical specifications or  
 21 changes in part numbers related to these components. These items are being ordered as the  
 22 specification and part numbers for these parts are determined and pose a very low risk to operation of  
 23 the gas turbines due to system redundancy, local availability of replacement components, installation of  
 24 the previous spare, or installation of new components as part of recent capital upgrades.

25 **6.2.3 Hydraulic Generation**

26 Table 4 provides an overview of the critical spares program for Hydro Generation and Appendix G  
 27 contains detailed spares lists for the various facilities.

**Table 4: Critical Spares – Hydraulic Generation**

<b>Total Identified Critical Spare Items</b>	<b>1203</b>
Number of Critical Spare Items In Stock	1203
Number of Items On Order	0
Number of Items not yet On Order	0

1 As noted in the previous report, the Hinds Lake Station Service Transformer was delivered on October  
2 15, 2019; however the grounding resistor was found to be damaged and was returned to the  
3 manufacturer for repair. This grounding resistor has now been repaired and returned to Hydro’s  
4 possession.

## 5 **7.0 Near-Term Reliability and Resource Adequacy**

6 This section discusses the near-term reliability and resource adequacy of the Newfoundland and  
7 Labrador Interconnected System for the upcoming winter period. It provides a summary of the analysis  
8 presented in Hydro’s “Reliability and Resource Adequacy Study–2019 Update” (“RRA Study”), filed with  
9 the Board on November 15, 2019.

10  
11 The reliability indices in this near-term report include both annual and monthly Loss of Load Hours  
12 (“LOLH”), Expected Unserved Energy (“EUE”), and Normalized EUE<sup>2</sup> for the period of October 1, 2019 to  
13 December 31, 2020. The analysis considers the different types of generating units (i.e., thermal, hydro,  
14 and wind) in Hydro’s fleet, contractual sales, transmission constraints, peak load, load forecast  
15 uncertainty, and capacity assistance programs. Similar to previous analyses, a range of projected  
16 availabilities was considered for the Holyrood TGS. A detailed discussion of the modelling approach used  
17 can be found in Volumes I and II of the RRA Study.

18  
19 This section provides a summary of results for 2019–2020 for Scenarios one through three, as well as  
20 Scenarios seven and eight from Volume II of the RRA Study which incorporate the following  
21 assumptions:

- 22 • Labrador-Island Link (“LIL”) unavailability until June 1, 2020;
- 23 • Expected capacity assistance available;
- 24 • Expected available import power over the Maritime Link; and
- 25 • Holyrood TGS Derated Adjusted Forced Outage Rates (“DAFOR”) of 15%, 18%, and 20%.<sup>20</sup>

26 A detailed description of the analysis can be found in Volume II of the RRA Study.

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<sup>2</sup> Normalized EUE provides a measure relative to the size of the assessment area. It is defined as:  $\frac{[(\text{Expected Unserved Energy}) / (\text{Net Energy for Load})] \times 1,000,000}{\text{with the measure of per unit parts per million.}}$

## 1 7.1 Assumptions

### 2 7.1.1 Asset Performance

3 Hydro updates its assumptions for forced outage rates for all generation assets on an annual basis.<sup>3</sup>

4

5 Forced outage rates used in this analysis are presented in Table 5.

**Table 5: Forced Outage Rates - Hydro-owned Assets**

Asset	Reliability Metric
Hydraulic Units	DAFOR = 2.8%
Holyrood Thermal Units	DAFOR = 15%, 18%, 20%
Holyrood Gas Turbine	DAUFOP = 1.7%
Happy-Valley Gas Turbine	DAUFOP = 9.8%
Stephenville Gas Turbine	DAUFOP = 30%
Hardwoods Gas Turbine	DAUFOP = 30%
Diesels	DAUFOP = 6.2%

6 For units not owned by Hydro, the forced outage rates used in Hydro’s modelling are determined using  
 7 industry averages. Updated forced outage rates used for assets owned by a third party in this analysis  
 8 are presented in Table 6.

**Table 6: Forced Outage Rates - Third-party Owned Assets**

Asset	Reliability Metric
Hydraulic Units	DAFOR = 5.7%
Gas Turbines	DAUFOP = 13.6%
Corner Brook Cogen	DAUFOP = 15.8%

### 9 7.1.2 Labrador-Island Link Assumptions

10 In correspondence to the Board dated August 8, 2019, Hydro provided an update regarding the progress  
 11 of the commissioning activities associated with the LIL. In this correspondence, Hydro indicated that the  
 12 LIL would be undergoing dynamic commissioning from mid-October 2019 to mid-February 2020 and  
 13 would be out of service for an additional period from mid-April to mid-May 2020. This would result in  
 14 the LIL being unavailable for the majority of the winter period.

<sup>3</sup> Forced outage rates are updated consistent with the Forced Outage Rates Methodology presented in Hydro’s RRA Study, filed with the Board on November 15, 2019.

1 Based on this update, in correspondence dated August 28, 2019, the Board requested that Hydro  
2 incorporate a LIL outage until June 1, 2020, into its base assumptions. Hydro has performed its analysis  
3 assuming that the LIL is unavailable until June 1, 2020 in all cases.

### 4 **7.1.3 Availability of Capacity Assistance Agreements**

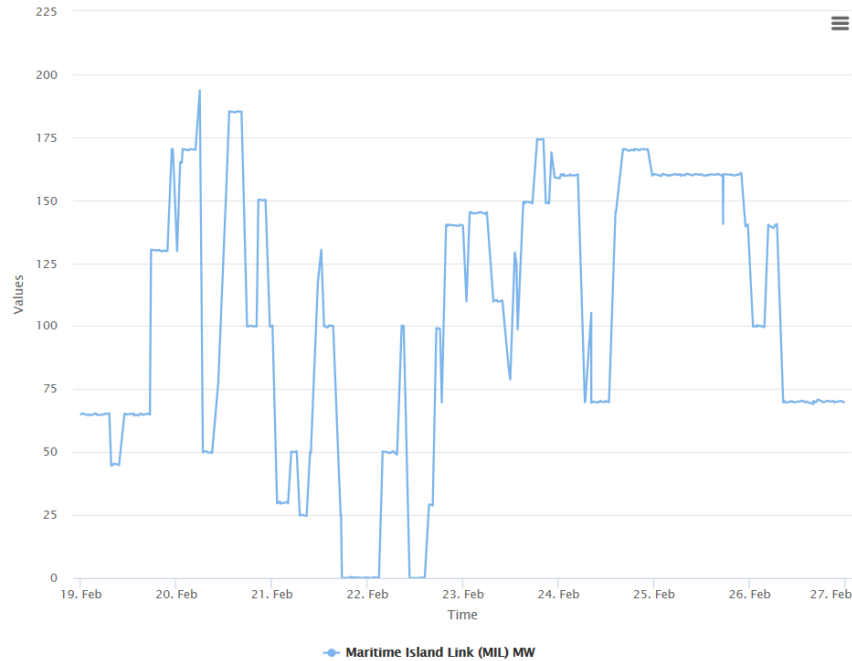
5 Capacity assistance refers to curtailable load and customer generation available to the utility under  
6 contracts to provide capacity on an as needed basis. Hydro currently has a capacity assistance contract  
7 with Corner Brook Pulp and Paper for up to 105 MW, as approved by the Board in Board Order No. P.U.  
8 40(2018). In analysis conducted for the RRA Study, Hydro modelled this capability at the 2018 tested  
9 value of 100.4 MW. Hydro has also entered into a capacity assistance agreement with Vale  
10 Newfoundland and Labrador Limited (“Vale”) to be provided by its on-site diesel generators. This makes  
11 7.6 MW available to the Island Interconnected System for the winter operating season. As such, both  
12 agreements have been included in Hydro’s modelling.

### 13 **7.1.4 Availability of Maritime Link Imports**

14 The Maritime Link is expected to be available to import energy during the 2019–2020 winter operating  
15 season. Hydro successfully imported energy over the Maritime Link through the 2018–2019 winter  
16 operating season. To date, Hydro has been focused on purchasing energy to offset higher cost thermal  
17 energy on both a short-term and long-term basis.

18  
19 While all of Hydro’s market purchases have been made on an economic basis, Hydro has also been  
20 successful in making market purchases that have had system reliability benefits. As an example, Hydro  
21 experienced high customer demand during the period from February 19 to 26, 2019, with a system  
22 record peak of 1,784 MW on February 20, 2019. During that period, Hydro chose to seek imports on an  
23 economic basis, but also to increase system reliability. Power was imported for 94% of hours during that  
24 week, with purchases fulfilled as requested in all but four hours; during two of those hours a transaction  
25 was not achieved, during the other two hours a deal was achieved for a portion of the volume  
26 requested. Figure 1 shows imported quantities over the Maritime Link during that time period. In Figure  
27 1 it can be observed that Hydro was successful in importing in excess of 125 MW for prolonged periods  
28 of time, with a maximum import of 185 MW for four hours.





**Figure 1: Imports over Maritime Link between February 19 and 26, 2019**

1 Hydro can also purchase energy and capacity for economic reasons by doing short-term transactions or  
 2 by making larger, longer term commitments. In March 2019, Nalcor Energy Marketing (“NEM”) entered  
 3 into a contract on Hydro’s behalf for unit-firm capacity from a third party for 100 MW on-peak and 50  
 4 MW off-peak. Based on the analysis of the data from March, the contracted amount was supplied in all  
 5 hours. Similarly, NEM entered into a deal for 24.5 GWh of energy in October 2019; combined with real-  
 6 time opportunistic purchases this resulted in total imports of 53.3 GWh in October. NEM also entered  
 7 into an agreement on Hydro’s behalf for November 2019 for the purchase of 60 GWh of energy, with a  
 8 delivery profile of 100 MW per hour on-peak and 50 MW per hour off-peak. Combined with real-time  
 9 opportunistic purchases, a total of 62.9 GWh was purchased on Hydro’s behalf during November  
 10

11 Based on Hydro’s experience with securing market purchases to date, import scenarios are  
 12 contemplated as sensitivities to the expected case in this report — that is, firm imports of 50 MW and  
 13 100 MW from December 2019 to March 2020 with an associated forced outage rate intended to serve  
 14 as proxy for anticipated potential interruptions to the import. Since the availability of these contracts  
 15 depends on the availability of capacity from a third-party to provide firm capacity, there is no guarantee  
 16 that these contracts would be available. The analysis demonstrates the effect on the system if the  
 17 capacity was available in the requested amounts.

## 1 7.2 System Energy Capability

2 Low inflows through late summer and early fall 2019 resulted in energy storage levels below the  
3 minimum storage levels required to ensure the ability to reliably supply customers through the winter in  
4 the event of the critical dry sequence.<sup>4</sup> In response, Hydro purchased economic energy over the  
5 Maritime Link and generated additional energy thermally to help secure its energy in storage.

6  
7 A series of rainfall events occurred over all reservoir basins in early to mid-November 2019. This  
8 precipitation has increased the total system energy in storage to a level above the minimum storage  
9 limit. This has allowed for a reduction in the production from the Holyrood TGS units to minimum levels,  
10 supplemented by a purchase agreement for imports over the Maritime Link through November. In  
11 addition, Hydro entered into a firm capacity and energy purchase agreement with Corner Brook Pulp  
12 and Paper Limited (“CBPP”) for an approximate two week period in November 2019 which provided a  
13 total of 14.9 GWh.<sup>5</sup>

14  
15 The aggregate reservoir storage level on November 30, 2019 was 1,600 GWh, 35% below the seasonal  
16 maximum operating level and 21% above the revised minimum storage level. The current storage level  
17 compares with the 20-year average storage level for the end of November of 1,995 GWh. At the end of  
18 November 2018, aggregate storage level was 1,702 GWh.

19  
20 Hydro actively manages its resources to ensure its ability to reliably supply customers with least-cost  
21 energy. Imports will continue to be used to economically supplement or offset generation from the  
22 Holyrood TGS, to the extent that they are technically feasible. Stand-by units have not been used for  
23 water management purposes and Hydro does not currently foresee using production from standby  
24 generation to support reservoir levels.

---

<sup>4</sup> In August 2019, Hydro revised its minimum storage limits for the remainder of the year in consideration of continued delays in the availability of the LIL to deliver energy to the Island Interconnected System. System energy analysis was conducted assuming no energy deliveries to the Island Interconnected System from the LIL throughout winter 2019–2020. The results of this analysis indicated that Hydro needed to produce and/or procure additional energy to ensure its ability to reliably supply customers through the winter in the event of the critical dry sequence. Minimum storage targets are developed annually to provide guidance in the reliable operation of Hydro’s major reservoirs — Victoria, Meelpaeg, Long Pond, Cat Arm, and Hinds Lake. The minimum storage target is designed to show the minimum level of aggregate storage required such that if there was a repeat of Hydro’s critical dry sequence, or other less severe sequence, Hydro’s load can still be met through the use of the available hydraulic storage, maximum generation at Holyrood TGS, and now-firm imports. Hydro’s long-term critical dry sequence is defined as January 1959 to March 1962 (39 months). Other dry periods are also examined during the derivation to ensure that no other shorter term historic dry sequence could result in insufficient storage.

<sup>5</sup> November energy purchases from CBPP delivered under the “Firm Energy Power Purchase Agreement,” approved by the Board in Board Order No. P.U.35(2019).

- 1 Figure 2 plots the 2018 and 2019 storage levels, maximum operating level storage, and the 20-year
- 2 average aggregate storage for comparison.<sup>6</sup>

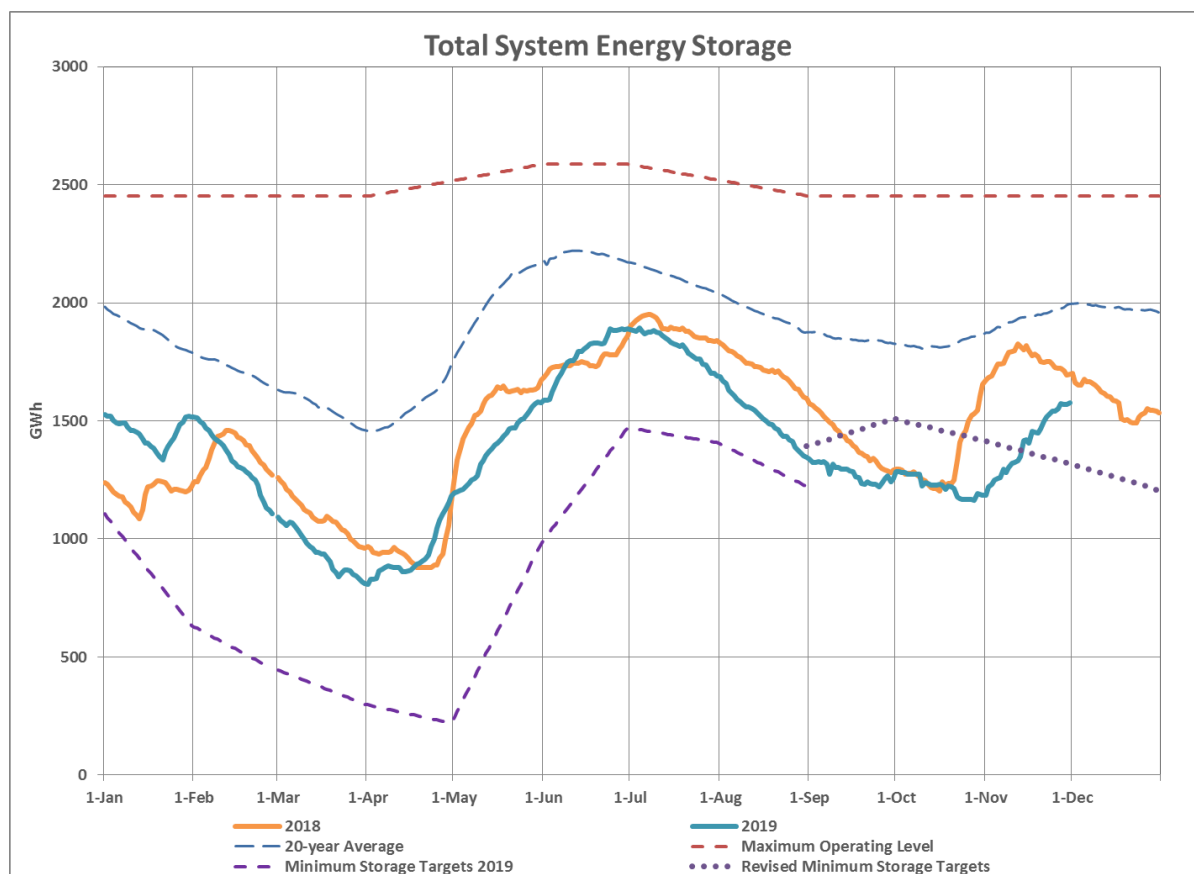


Figure 2: Total System Energy Storage for November 30, 2019

### 3 7.3 Load Forecast

- 4 Customer load requirements were fully assessed as part of Hydro’s RRA Study. Requirements for the
- 5 2019–2020 winter operating season are unchanged from those presented in WR reports filed in October
- 6 and November. Details of Hydro’s forecasts for the 2019–2020 winter operating season are provided in
- 7 Tables 7 through 9.

<sup>6</sup> 2019 minimum storage targets revised from August 31, 2019 to December 31, 2019 due to a change in the LIL assumptions.

**Table 7: 2019–2020 Island Interconnected System Load Forecast**

	<b>MW</b>
Utility Requirements <sup>7</sup>	1,481
Industrial Customers	178
<b>Island Interconnected System Customer Coincident Demand</b>	<b>1,659</b>
Island Interconnected System Transmission Losses and Station Service Requirements	77
<b>Total Island Interconnected System Requirements (P50)</b>	<b>1,736</b>
P90 Demand Adjustment	60
<b>Total Island Interconnected System Requirements (P90)</b>	<b>1,796</b>

**Table 8: 2019–2020 Labrador Interconnected System Load Forecast**

	<b>MW</b>
Utility Requirements	149
Industrial Customers	301
<b>Labrador Interconnected System Customer Coincident Demand</b>	<b>450</b>
Labrador Interconnected System Transmission Losses and Station Service Requirements	47
<b>Total Labrador Interconnected System Requirements</b>	<b>497</b>

**Table 9: 2019–2020 Newfoundland and Labrador Interconnected System (“NLIS”) Load Forecast**

	<b>MW</b>
NLIS Customer Coincident Demand	2,075
NLIS Transmission Losses and Station Service Requirements	122
<b>Total NLIS Requirements</b>	<b>2,197</b>
Island Interconnected System P90 Demand Adjustment	60
<b>Total NLIS Requirements (P90)</b>	<b>2,257</b>

## 1 **7.4 Scenarios Considered and Results**

2 The following subsections provide a description of the scenarios considered, and the anticipated system  
3 reliability in each case (i.e., LOLH, EUE, and normalized EUE results).

### 4 **7.4.1 Scenarios**

5 As part of Hydro’s RRA Study, scenarios were analyzed to assess system reliability under a range of  
6 potential system conditions. Results from the following scenarios analyzed as part of the RRA Study are  
7 included in this report.

<sup>7</sup> Reflects combined requirements of Newfoundland Power and Hydro Rural Retail.

1 **Scenario 1:** The expected scenario, which includes no availability of the LIL prior to June 1, 2020. This  
2 scenario assumes a DAFOR of 15% for Holyrood TGS, and the continuation of the Vale and CBPP capacity  
3 assistance contracts.

4 **Scenario 2:** Varies from Scenario 1 by increasing the Holyrood TGS DAFOR to 18%.

5 **Scenario 3:** Varies from Scenario 1 by increasing the Holyrood TGS DAFOR to 20%.

6 **Scenario 7:** Varies from Scenario 3 by considering imports of 50 MW over the Maritime Link from  
7 December 1, 2019 to March 31, 2020.

8 **Scenario 8:** Varies from Scenario 3 by considering imports of 100 MW over the Maritime Link from  
9 December 1, 2019 to March 31, 2020.

## 10 **7.4.2 Expected Unserved Energy and Loss of Load Hours Analysis**

### 11 ***Annual Assessment Results***

12 Table 10 provides the annual LOLH, EUE and normalized EUE results. Note that the basis for comparison  
13 of results is Hydro’s existing LOLH criteria of not more than 2.8 hours per year. Hydro intends to migrate  
14 to its proposed criteria of 0.1 LOLE when the Muskrat Falls project has been fully commissioned and  
15 thermal generation at Holyrood TGS, Hardwoods, and Stephenville have been retired.

16

17 The results indicate that the reliability of the system in the expected case, Scenario 1, is within Hydro’s  
18 current planning criteria. There is increased exposure through the 2019–2020 winter operating season  
19 as Holyrood TGS unavailability increases beyond 15%, as shown in the results of Scenarios 2 and 3.

20 Scenarios 7 and 8 demonstrate that imports over the Maritime Link can be used to mitigate the  
21 increased risk of resource shortfalls to current planned reliability levels if Holyrood TGS or other  
22 generating assets were to perform more poorly than expected.

**Table 10: Annual LOLH, EUE, and Normalized EUE Results<sup>8</sup>**

<b>Reliability Metric</b>		
<b>LOLH (hours)</b>	<b>Dec 2019<sup>9</sup></b>	<b>Jan – May 2020</b>
S1: Expected Case; LIL outage to June 1, 2020, no imports, Holyrood TGS DAFOR = 15%	0.57	2.40
S2: Expected Case, Holyrood TGS DAFOR = 18%	0.88	3.71
S3: Expected Case, Holyrood TGS DAFOR = 20%	1.08	4.73
S7: No LIL, Holyrood TGS DAFOR = 20%, 50 MW imports	0.55	2.32
S8: No LIL, Holyrood TGS DAFOR = 20%, 100 MW imports	0.29	1.12
<b>EUE (MWh)</b>	<b>Dec 2019<sup>10</sup></b>	<b>Jan – May 2020</b>
S1: Expected Case; LIL outage to June 1, 2020, no imports, Holyrood TGS DAFOR = 15%	32	127
S2: Expected Case, Holyrood TGS DAFOR = 18%	50	197
S3: Expected Case, Holyrood TGS DAFOR = 20%	64	258
S7: No LIL, Holyrood TGS DAFOR = 20%, 50 MW imports	31	117
S8: No LIL, Holyrood TGS DAFOR = 20%, 100 MW imports	15	50
<b>Normalized EUE (ppm)<sup>11</sup></b>	<b>2019</b>	<b>2020</b>
S1: Expected Case; LIL outage to June 1, 2020, no imports, Holyrood TGS DAFOR = 15%	3.2	11.8
S2: Expected Case, Holyrood TGS DAFOR = 18%	5.1	18.4
S3: Expected Case, Holyrood TGS DAFOR = 20%	6.5	24.1
S7: No LIL, Holyrood TGS DAFOR = 20%, 50 MW imports	3.4	14.4
S8: No LIL, Holyrood TGS DAFOR = 20%, 100 MW imports	2.0	6.8

### 1 **Monthly Assessment Results**

2 Table 11 provides monthly analyses of LOLH and EUE, by year. Examination of the 2019 results indicates  
3 low exposure to lost load and unserved energy through November, with exposure increasing in  
4 December. Examining results for 2019 and 2020, it can be seen that exposure is highest for the period  
5 from December through February. Exposure is seen to reduce in March, following which there is  
6 negligible exposure to resource shortfalls for the remainder of the period.

<sup>8</sup> Results presented for 2019 are consistent with those presented in the “2019–2020 Winter Readiness Planning Report – October Update,” as the RRA Study did not include analysis for 2019.

<sup>9</sup> 2019 results for December only.

<sup>10</sup> *ibid.*

<sup>11</sup> Normalized EUE is calculated on a full calendar year basis.

Table 11: Monthly LOLH and EUE for 2019–2020<sup>12</sup>

LOLH (hours)	Dec	Jan	Feb	Mar	Apr	May
S1: Expected Case; LIL outage to June 1, 2020, no imports, Holyrood TGS DAFOR = 15%	0.57	1.20	0.70	0.50	0.00	0.00
S2: Expected Case, Holyrood TGS DAFOR = 18%	0.88	1.80	1.14	0.75	0.01	0.01
S3: Expected Case, Holyrood TGS DAFOR = 20%	1.08	2.34	1.41	0.97	0.01	0.00
S7: No LIL, Holyrood TGS DAFOR = 20%, 50 MW imports	0.55	1.13	0.69	0.49	0.01	0.00
S8: No LIL, Holyrood TGS DAFOR = 20%, 100 MW imports	0.29	0.55	0.32	0.24	0.01	0.00
EUE (MWh)	Dec	Jan	Feb	Mar	Apr	May
S1: Expected Case; LIL outage to June 1, 2020, no imports, Holyrood TGS DAFOR = 15%	32	64	36	27	0	0
S2: Expected Case, Holyrood TGS DAFOR = 18%	50	99	59	39	0	0
S3: Expected Case, Holyrood TGS DAFOR = 20%	64	130	74	54	0	0
S7: No LIL, Holyrood TGS DAFOR = 20%, 50 MW imports	31	58	33	26	0	0
S8: No LIL, Holyrood TGS DAFOR = 20%, 100 MW imports	15	25	14	11	0	0

## 8.0 Risk and Risk Mitigation

Hydro’s readiness planning for the 2019–2020 winter season has progressed well. With the exception of full generating capacity of the Stephenville Gas Turbine, Hydro is ready in terms of generation and transmission availability for the 2019–2020 winter season. Potential risks and associated mitigation are described in the following sections.

### 8.1 Bay d’Espoir Operations

As of December 1, 2019, Bay d’Espoir generation is fully available; however, several risks have been identified. These risks, and Hydro’s mitigation measures, are further described below.

#### 8.1.1 Bay d’Espoir Penstocks

In 2018, Hydro conducted condition assessments of Bay d’Espoir Penstocks 1, 2, and 3, which included the completion of three reports prepared by a third party consultant. These reports have been completed, reviewed, and the final report was filed with the Board in July 2019. On September 22, 2019,

<sup>12</sup> Results presented for 2019 are consistent with those presented in the “2019–2020 Winter Readiness Planning Report – October Update,” as the RRA Study did not include analysis for 2019.

1 Hydro experienced a failure of Penstock 1 which resulted in a forced outage to Bay d'Espoir Hydraulic  
2 Generating Units 1 and 2.

3

4 In response to previous penstock failures, as part of ongoing effort to monitor the performance of the  
5 Penstocks and ensure reliability in the short-term, Hydro implemented an annual internal inspection  
6 program for Penstocks 1-3 in Bay d'Espoir. The 2019 annual inspections of Penstocks 2 and 3 were  
7 completed in the spring and summer months, prior to the Penstock 1 leak, and did not identify any  
8 major defects or areas of concern. The inspection of Penstock 1 had been scheduled for October 2019.  
9 This inspection was advanced and completed while Penstock 1 was undergoing repairs following the  
10 most recent failure. The results of the 2019 inspection revealed no major defects or areas of concern  
11 outside of the ruptured zone. Although the inspection did not reveal any immediate concerns, penstock  
12 1 is nearing the end of life and the recent leak is important evidence for consideration in the final  
13 decision regarding long term reliability options currently being considered for the Bay d'Espoir  
14 penstocks.

15

16 To mitigate potential impacts should another penstock leak occur, Hydro has taken proactive measures  
17 to ensure reduced downtime. Hydro has confirmed the availability of appropriately certified welders  
18 who could be on site within 48 hours<sup>13</sup> and prepared the materials and equipment required to be readily  
19 available on site. Hydro has stocked pre-rolled steel plate and prepared skids of required repair items for  
20 immediate mobilization. Hydro also plans to mobilize an excavator to the penstock area in December to  
21 avoid potential transportation issues during winter months when access roads can be snow covered and  
22 icy.

23

24 Hydro plans to file additional reports and details regarding the penstock life extension strategy with the  
25 Board in Q1 2020.

### 26 **8.1.2 Bay d'Espoir Unit 3 Vibration**

27 In early October, Bay d'Espoir Unit 3 began experiencing higher than normal vibration levels when  
28 generating above 90% rated capacity. In an effort to mitigate potential for damage to the unit, on  
29 October 4, 2019, Hydro derated the unit to 70MW<sup>14</sup> until the condition could be addressed. In response

---

<sup>13</sup> Upon recognition of a failure, the generating units are removed from service, the penstock is drained, the failure is uncovered from the exterior, and access to the interior is gained. This activity can take two days to complete.

<sup>14</sup> The capacity for Unit 3 is 76.5 MW.



1 to this de-rating Hydro implemented an investigation to determine the root cause of the vibration which  
2 consisted of online operational testing as well as engagement of third parties to gather professional  
3 opinion. The analysis indicated that a generator bearing in the unit may be in the early stages of failure  
4 and requires replacement. A planned outage was scheduled from November 25-28, 2019 to allow time  
5 for offline intrusive inspections of the generator bearings and associated components. Upon inspection  
6 it was determined that the generator guide and thrust bearings had exhibited wear beyond useful  
7 operation and required immediate replacement. Both the generator guide and thrust bearings were  
8 replaced and the unit was successfully returned to service on November 30, 2019 with vibration  
9 returned to acceptable levels. Note that the planned WR load test for Unit 3, as reflected in Appendix C,  
10 was completed prior to discovery of the vibration issue.

### 11 **8.1.3 Bay d’Espoir Unit 1 PM9 Deferral**

12 The project to complete the PM9 inspection of Bay d’Espoir Unit 1 has been deferred to 2020. A PM9 is  
13 completed every six years and takes approximately five weeks to execute. Considering the overall health  
14 of Unit 1, the constraint of the available 3 week outage schedule, and other ongoing and planned work  
15 to be executed in 2019, Hydro has decided to defer the PM9 project for Unit 1 to 2020. Rather than  
16 executing the PM9 project in 2019, Hydro has completed a PM6 annual inspection as well as any CM  
17 activities required to ensure the reliability of Unit 1 for the coming winter. Hydro considers the deferral  
18 of the PM9 project to 2020 as low risk.

### 19 **8.1.4 Bay d’Espoir Terminal Station Circuit Breaker Failures**

20 Since October 2018, Hydro has experienced 4 failures of 230 kV General Electric (“GE”) dead tank circuit  
21 breakers at the Bay d’Espoir Terminal Station. Following the third failure, which occurred on August 24,  
22 2019, Hydro and GE formed a technical focus group to further evaluate the recent failures, review  
23 operational procedures, and establish mitigation measures. Collaboration with GE regarding these  
24 circuit breakers continues and Hydro will provide an update to the Board by January 31, 2020.

25  
26 Hydro has developed plans to minimize outage duration by ensuring the availability of spare breakers,  
27 and spare breaker phases, to allow rapid replacement and return to service so as to minimize impacts to  
28 the Island Interconnected System should another failure occur. Replacing a circuit breaker can take up  
29 to seven days to complete. Change out of a single failed phase requires less time than replacing a  
30 complete circuit breaker. Hydro has two spare circuit breakers and a third in transit. Additionally, GE has

1 agreed to provide Hydro with three spare breaker phases that will be delivered to Bay d’Espoir in the  
2 first quarter of 2020.

3  
4 Hydro continues to investigate the failures and is reviewing options for long term resolution. With the  
5 mitigation outlined above Hydro is well positioned to respond should another breaker failure occur at  
6 Bay D'Espoir during the winter period.

## 7 **8.2 Gas Turbine Operations**

8 The Stephenville Gas Turbine is currently derated and tested to 25 MW and is capable of synchronous  
9 condense operation. As discussed below, the spare engine has not yet returned from the overhaul  
10 facility and the Stephenville End B engine was sent for repairs on November 28, 2019. Hydro expects the  
11 Stephenville Gas Turbine to return to full capacity by mid-January 2020 with a spare engine available by  
12 mid-February 2020.

13  
14 Hydro is closely monitoring all work at the overhaul facility and is investigating the availability of a  
15 leased engine to further mitigate schedule for engine availability.

### 16 **8.2.1 Spare Engine Update**

17 Since 2016, Hydro has maintained the practice of having a spare engine or engines available to replace  
18 the engines at Hardwoods and Stephenville should an in-service failure occur, particularly during the  
19 winter operating season. Hydro has continued this practice in 2019 with a plan to carry one spare for the  
20 2019–2020 winter operating season.

21  
22 On November 22, 2018, a planned borescope inspection of Hardwoods engine S/N 202204, revealed a  
23 broken High Pressure (“HP”) turbine blade which required the engine to be removed from service and  
24 returned for repair. A spare was installed to maintain capacity of 50 MW. The detailed inspection of  
25 engine S/N 202204 determined that the complete set of HP turbine blades required replacement. The  
26 work was approved by the Board in Board Order No. P.U. 33(2019) and is currently underway at the  
27 overhaul facility. The completion of the work was ahead of schedule; however, during engine  
28 performance testing an issue was found with the number 7 bearing housing. The unit was disassembled  
29 and rebuilt; however, it did not pass the overhaul facilities quality control inspections. The unit has been  
30 disassembled and is being rebuilt again. When the work is complete the unit will undergo additional  
31 performance testing and will be returned to Hydro when it exhibits acceptable performance. The engine

1 is expected to be returned to Hydro in late December or early January 2020. Upon its return, this engine  
2 will be installed to replace the recently failed Stephenville engine rather than used as a spare as initially  
3 planned.

4  
5 The recently failed Stephenville End B engine S/N 202223 will become the designated spare once  
6 returned from the overhaul facility. It is expected that this engine will be returned to Hydro by mid-  
7 February 2020.

### 8 **8.2.2 Stephenville End B Engine Status**

9 The Stephenville End B engine S/N 202223 was removed in July 2019 for a planned capital overhaul at  
10 an offsite overhaul facility. The overhaul was completed on schedule and the engine passed its  
11 performance test at the overhaul facility. The engine was returned to Stephenville on November 17,  
12 2019 for installation.

13  
14 The overhauled engine S/N 202223 was installed and ran for several hours, up to a load of 17 MW,  
15 during the in-situ acceptance test on November 18, 2019. During this run-up, the engine tripped due to  
16 high vibration. Internal and external inspections of the engine were completed following the test run.  
17 The inspections revealed damage to the on-engine fuel pump gearbox and potential internal damage to  
18 the HP turbine casing. It was determined that the engine needed to be removed from its berth and  
19 returned to the overhaul facility for inspection and repair. Engine S/N 202223 was shipped back to the  
20 overhaul facility on November 28, 2019. The scope and schedule for repairs have not yet been  
21 determined.

22  
23 Due to the recent failure of engine S/N 202223, Hydro plans to install its previously designated spare  
24 engine (S/N 202204) in Stephenville End B once received from the overhaul facility. The Stephenville Gas  
25 Turbine is expected to return to full capacity of 50 MW by mid-January 2020.

### 26 **8.2.3 Stephenville Gas Turbine Black Start Capability**

27 During the planned black start test for the Stephenville Gas Turbine, the black start relay, sensors, and  
28 associated wiring were found to be defective. After engineering review, replacement components were  
29 ordered and repairs were completed on November 29, 2019, restoring the black start capability of the  
30 Stephenville Gas Turbine. An additional black start test could not be completed at that time due to the

1 unavailability of the required protection and control resources. The additional black start test has been  
2 rescheduled for December 13, 2019.

### 3 **8.3 Cat Arm CD-8**

4 Hydro has now completed an unplanned refurbishment scope of work for the upstream slope of the CD-  
5 8 Dam. The work was completed under Hydro’s Hydraulic In-Services Failures 2019 capital project.  
6 The CD-8 Dam is located in the main reservoir near the tunnel that conveys water to the forebay  
7 reservoir. Erosion damage to the protective riprap<sup>15</sup> layer in sections of the CD-8 dam was observed  
8 during annual inspection; the refurbishment was required to restore the dam to original design.

### 9 **8.4 Reservoir Levels**

10 Hydro continually monitors energy levels in its reservoirs, the inflows in comparison to historic dry  
11 periods, and results from Vista DSS modelling to ensure it is able to reliably supply its customers. The  
12 analysis focuses on ensuring there is sufficient energy available for customers, using a mix of hydraulic,  
13 thermal, and purchased energy. During the 2018–2019 winter operating season, Hydro utilized the  
14 Maritime Link and Holyrood TGS off-minimum generation to support water levels in the reservoirs.  
15 Generation above minimum at Holyrood TGS is otherwise required throughout the course of a typical  
16 winter to meet operating reserve requirements. The ability to use the Maritime Link when economic to  
17 offset Holyrood TGS production is beneficial to customers.

18  
19 In August 2019 Hydro revised its minimum storage limits for the remainder of the year in consideration  
20 of continued delays in the availability of the LIL to deliver energy to the Island Interconnected System.  
21 System energy analysis was conducted assuming no energy deliveries to the Island Interconnected  
22 System from the LIL throughout the winter of 2019–2020. The results of this analysis indicated that  
23 Hydro needed to produce and/or procure additional energy to secure its energy in storage in advance of  
24 the winter operating season. If the LIL continued to be delayed beyond this winter, these efforts would  
25 help ensure that Hydro would have sufficient storage to reliably serve its customers.

26  
27 Following the revision of its minimum storage limits, Hydro engaged NEM to import energy on its behalf  
28 when available and technically and economically feasible. To the end of November 2019, NEM had  
29 imported 138.2 GWh, which includes an import deal of 60 GWh for the month of November 2019. Hydro

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<sup>15</sup> Riprap is placed rock that provides a protective layer on the face of the embankment dam structure.

1 also entered into a firm capacity and energy purchase agreement with CBPP of 14.9 GWh for two weeks  
2 in November 2019. Further mitigation efforts included the early return to service and maximization of  
3 generation at the Holyrood TGS units<sup>16</sup> during the fall of 2019.

4  
5 A series of rainfall events occurred over all reservoir basins in early to mid-November 2019. This  
6 precipitation has increased the total system energy in storage to a level above the minimum storage  
7 limit. This has allowed for a reduction in the production from the Holyrood TGS units to minimum levels,  
8 supplemented by the November imports. It is anticipated that Holyrood TGS Units 1, 2, and 3 will be  
9 required to operate through the winter 2019–2020 to provide capacity and the balance of energy to  
10 reliably meet Hydro’s customer demand requirements. Hydro will continue to monitor the requirements  
11 for thermal energy and market imports to support reservoir levels and adjust as required. Imports will  
12 continue to be used to economically supplement or offset generation from the Holyrood TGS, to the  
13 extent that they are technically feasible. Stand-by units have not been used for water management  
14 purposes and Hydro does not currently foresee using production from standby generation to support  
15 reservoir levels.

## 16 **8.5 Muskrat Falls to Happy Valley Interconnection Project**

17 The focus of the 2019 work for this project is to complete the interconnection and establish power flow  
18 between Muskrat Falls Terminal Station 2 (“MFTS2”) and the Happy Valley Terminal Station, which  
19 generally includes completion of the Muskrat Falls Terminal Station expansion, construction of a new 6  
20 km segment of 138kV wood pole transmission line, and completion of line protection upgrades required  
21 in the Happy Valley Terminal Station.

22  
23 Commissioning of the station equipment is now underway and is expected to be completed, as much as  
24 is possible without completing the final interconnection, in December 2019.

25  
26 In the fall of 2019 large voltage swings were experienced at the Muskrat Falls construction site as a  
27 result of the switching of 315 kV system elements. This is the same system that will supply the  
28 customers in Labrador East once construction of the new line and terminal station is complete. Due to  
29 the power quality concerns, Hydro initiated an analysis of steady state and transient voltage conditions  
30 during such events. Based on the analysis, Hydro has determined that the Muskrat Falls to Happy Valley

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<sup>16</sup> To the extent possible in consideration of system reliability requirements.

1 Interconnection cannot be established until the first generating unit at Muskrat Falls is released for  
2 service. The addition of this unit will reinforce the transmission system to mitigate the voltage deviation  
3 issues to help ensure compliance with Hydro's Transmission Planning Criteria.

4  
5 Muskrat Falls Unit 1 was scheduled to be released for service on December 19, 2019; however, the  
6 current schedule has moved this date into January 2020. As a result, the interconnection between  
7 MFTS2 and the Happy Valley Terminal Station will be completed after the commissioning of Muskrat  
8 Falls Unit 1.

9  
10 Hydro is taking steps to continue to provide reliable service to Labrador East until the interconnection is  
11 put into service. As per correspondence received from the Board on December 4, 2019, “Newfoundland  
12 and Labrador Hydro - Labrador East Reliability Plan Updates – Resume Monthly Reporting and Further  
13 Information Requested,” Hydro will provide a full update on December 17, 2019.

## 14 **9.0 Conclusion**

15 Hydro is confident in its ability to serve its customers in the 2019–2020 winter season. The results of  
16 Hydro's review of the year-to-date planned completion status of its AWP for both the Labrador  
17 Interconnected System and Island Interconnected System indicate that Hydro is well positioned for  
18 winter.

19  
20 With the exception of an unplanned de-rating of the Stephenville Gas Turbine, primary generation  
21 sources are fully available. The Stephenville Gas Turbine is expected to return to full capacity by mid-  
22 January 2020. In its assessments of operating reserves, Hydro will plan for one end of this unit to be  
23 unavailable until this anticipated time frame and will use other resources as required, including  
24 economic purchases over the Maritime Link, to reliably meet customer demand requirements. All  
25 planned WR activities for transmission and terminal stations are complete. Hydro has plans to maintain  
26 reliable service to its Labrador East customers until the Muskrat Falls to Happy Valley Interconnection  
27 can be energized. As requested, an update of Hydro’s Labrador East Reliability Plan will be provided to  
28 the Board on December 17, 2019.

29  
30 With respect to capital projects, the deferral of the overhaul (PM 9) of Unit 1 at Bay d’Espoir does not  
31 present a risk to power supply. An annual inspection (PM 6) and any required CM for WR were  
32 completed prior to December 1, 2019. The projects to overhaul a turbine engine at Stephenville and

1 complete an overhaul of a spare gas turbine engine were not completed by December 1, 2019. The  
2 replacement engine for Stephenville is expected to be installed by mid-January 2020 and a spare engine,  
3 for use at Stephenville or Hardwoods, is expected to be available by mid-February 2020.  
4  
5 Hydro continues to track remaining work activities and will provide an update to the Board on January  
6 17, 2020.





# Appendix A

## Status of Capital Projects Related to Winter Readiness





**Status of Winter Readiness Scope in 2019 Capital Projects  
on the Island and Labrador Interconnected Systems**

Asset Category	Project Title	Expected Completion of 2019 Winter Readiness Scope (December 1 Update)
Hydraulic Generation	Granite Canal: Overhaul Turbine/Generator	Complete
Hydraulic Generation	Bay d'Espoir: Refurbish Turbine, Unit 7	Complete
Hydraulic Generation	Bay d'Espoir: Overhaul Unit 1	2020 TBD (See Note 1)
Hydraulic Generation	Hinds Lake: Refurbish Generator Rotor	Complete
Thermal Generation	Holyrood: Replace Battery Banks and Chargers	Complete
Gas Turbine Generation	Hardwoods: Upgrade Human Machine Interface and Automatic Voltage Regulator	Complete
Gas Turbine Generation	Hardwoods Gas Turbine Equipment Refurbishment and Replacement	Complete
Gas Turbine Generation	Stephenville: Overhaul Gas Generator	2020 TBD (See Note 2)
Gas Turbine Generation	Hardwoods and Stephenville: Refurbish Spare Gas Generator	15-Feb-2020 (See Note 3)
Terminal Stations	Various Locations: Replace Surge Arresters	Complete
Terminal Stations	Various Locations: Replace Instrument Transformers	Complete
Terminal Stations	Holyrood: Replace 66 kV Station Service Feed	Complete
Terminal Stations	Various Locations: Upgrade Power Transformers (2019-2020)	Complete
Terminal Stations	Wabush: Additions for Load	Complete
Terminal Stations	Various Locations: Replace Battery Banks and Chargers	Complete
Terminal Stations	Various Locations: Upgrade Power Transformers (2018-2019)	Complete
Transmission	Various Transmission Lines: Perform Wood Pole Line Management	Complete

**Notes**

1. The project to complete the PM9 inspection of Bay d'Espoir Unit 1 has been deferred to 2020. A PM9 is completed every six years and takes approximately five weeks to execute. Considering the overall health of Unit 1, the constraint of the available three week outage schedule, and other ongoing and planned work to be executed in 2019, Newfoundland and Labrador Hydro ("Hydro") reviewed the risk and decided to defer the PM9 project for Unit 1 to 2020. As a risk mitigation, rather than executing the PM9 in a rushed manner within a compressed unit outage window, Hydro instead completed, in November 2019, a PM6 annual inspection as well as corrective maintenance activities required to ensure the reliability of Unit 1 for the coming winter. Hydro considers the deferral of the PM9 project to 2020 as low risk.

2. The Stephenville End B engine S/N 202223 was removed in July 2019 for a planned capital overhaul at an off-site overhaul facility. The overhaul was completed on schedule and the engine passed its performance test at the overhaul facility. The engine was returned to Stephenville on November 17, 2019, for installation. The overhauled engine S/N 202223 was installed and ran for several hours, up to a load of 17 MW, during the in-site acceptance test on November 18, 2019. During this run-up, the engine tripped due to high vibration. Internal and external inspections of the engine were completed following the test run. The inspections revealed damage to the on-engine fuel pump gearbox and potential internal damage to the High Pressure ("HP") turbine casing. It was determined that the engine needed to be removed from its berth and returned to the overhaul facility for inspection and repair. Engine S/N 202223 was shipped back to the overhaul facility on November 28, 2019. The scope and schedule for repairs have not yet been determined. Due to the recent failure of engine S/N 202223, Hydro plans to install its previously designated spare engine (S/N 202204) in Stephenville End B once received from the overhaul facility. The Stephenville Gas Turbine is expected to return to full capacity of 50 MW by mid-January 2020.

3. On November 22, 2018, a planned borescope inspection of Hardwoods engine S/N 202204 revealed a broken HP turbine blade which required the engine to be removed from service and returned for refurbishment. The detailed inspection of engine S/N 202204 determined that the complete set of HP turbine blades required replacement. The work was approved by the Board of Commissioners of Public Utilities in Board Order No. P.U. 33(2019) and is currently underway at the overhaul facility. The completion of the work was ahead of schedule; however, during engine performance testing, an issue was found with the number 7 bearing housing. The unit was disassembled and rebuilt, however, it did not pass the overhaul facility's quality control inspections. The unit has been disassembled and is being rebuilt again. When the work is complete the unit will undergo additional performance testing and will be returned to Hydro when it exhibits acceptable performance. The engine is expected to be returned to Hydro in late December or early January 2020. Upon its return, this engine will be installed to replace the recently failed Stephenville engine rather than used as a spare as initially planned. The recently failed Stephenville End B engine S/N 202223 will become the designated spare once returned from the overhaul facility. It is expected that this engine will be returned to Hydro by mid-February 2020.





## Appendix B

Status of Winter Readiness Testing of Plant and Equipment – Thermal Generation



Status of Test			
Unit 1	Unit 2	Unit 3	BoP

**Plant: Holyrood Operations**

Following Annual Outages, Unit is Run Up, Synchronized and all Systems Verified Before Operating Status Determined, as per ECC, Prior to Coming Winter Operating Season to Ensure Preparedness A Unit Load Test is performed at this time

S/U	S/U	✓	N/A
Black Start Test of the Black Start Systems is Performed Prior to the Winter Operating Season	N/A	N/A	N/A
Perform Megger testing of 600 volt motors prior to the Winter Operating Season	✓	✓	N/A

**Safety:**

Boiler Service Pressure Test Performed as Required by Regulator	✓	✓	N/A
Safety Valves Testing as Required (Post Start-Up)	✓	✓	N/A
Boiler Operational Off-Line High / Low Drum Level Trip Tests	✓	✓	N/A
H2 Emergency Venting Valving	✓	✓	N/A
Breaker and Disconnect Operation Verified by Operations Department and Whitbourne Crew	✓	✓	N/A

**Service Air and Instrument Air Systems:**

All Stationary Air Compressors Available	N/A	N/A	✓
All Portable Air Compressors Available	N/A	N/A	✓
Air Compressor Operational Checks Performed (eg Oil Levels, Cooling Water, etc)	N/A	N/A	✓
Air Compressor STBY/Sequencing Capability	N/A	N/A	✓

**Raw and Makeup Water System:**

Quarry Brook Dam Integrity	N/A	N/A	✓
Raw Water Sump Water Supply Control Valve Operational	N/A	N/A	✓
Raw Water Pumps Operational	N/A	N/A	✓
Adequate Supply of Chemicals (1172, 1179, Polymer, etc.)	N/A	N/A	✓
1172, 1179, Polymer Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc. Operational	N/A	N/A	✓

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable

	Status of Test			
	Unit 1	Unit 2	Unit 3	BoP
Portable Diesel Pump Check of Emergency Plant Water Supply from Quarry Brook Dam	N/A	N/A	N/A	✓
Adequate and Readily Available Supply of Hoses for the Portable Diesel Pump from Quarry Brook Dam to Plant	N/A	N/A	N/A	✓

**Raw and Makeup Water System and Water Treatment Plant:**

Instrumentation and Controls Operational	N/A	N/A	N/A	✓
Analytical Rack Sample Cooler Filters Cleaned/Replaced as Required	N/A	N/A	N/A	✓
Analytical Rack Sample Coolers Cooling Water in Service	N/A	N/A	N/A	✓
Two Sample Cooling Water Pumps Availability	N/A	N/A	N/A	✓

**Clarifier:**

Clarifier Recirculator, VFD Motor, VFD Controller	N/A	N/A	N/A	✓
Clarifier Recirculator Scraper	N/A	N/A	N/A	✓
Clarifier Badger Meter and Clearwell Instrumentation	N/A	N/A	N/A	✓



	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
<b>Sand Filters:</b>				
Sand Filters (#s 1, 2 and 3) Resin integrity	N/A	N/A	N/A	✓
Sand Filters (#s 1, 2 and 3) Valve Operation (Normal and Backwashing, etc.)	N/A	N/A	N/A	✓
Two Clearwell Pumps Available	N/A	N/A	N/A	✓

**Demineralization System:**

Cation and Anion Trains (A, B and C) Resin Integrity	N/A	N/A	N/A	✓
Adequate Supply of Chemicals (Caustic Soda, Sulphuric Acid, 1172, 1179, Polymer, etc.)	N/A	N/A	N/A	✓
Sulphuric Acid and Caustic Soda Transfer Pumps, Valves, Lines, etc.	N/A	N/A	N/A	✓
Sulphuric Acid and Caustic Soda Regeneration Sets, Pumps, Valves, Lines, etc.	N/A	N/A	N/A	✓
Caustic Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc.	N/A	N/A	N/A	✓
Brine Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc.	N/A	N/A	N/A	✓

**Reserve FeedWater System ("RfW"):**

RfW Transfer Pump Oil Normal Operating Level	✓	✓	✓	N/A
RfW Transfer Pumps Operational	✓	✓	✓	N/A

**Circulating Water ("CW") and Screen Wash System:**

Vacuum Seal Pits Operational	✓	✓	✓	N/A
All CW Travelling Screens Operational	✓	✓	✓	N/A
CW Pump Motorized Discharge Valves 'Manual' and 'Auto', 'Cracked' Position Operation Verified	✓	✓	✓	N/A
CW Pump Motors Oil Normal Operating Level,	✓	✓	✓	N/A
CW Pumps Operational	✓	✓	✓	N/A
CW Pump Discharge Vacuum Breakers Operational	✓	✓	✓	N/A
CW Travelling Screens Wash Pumps Operational	✓	✓	✓	N/A
Condenser Flushed	✓	✓	✓	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable

	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
Condenser Backwashed	✓	✓	✓	N/A
General Service ("GS") Coolers Backwashed, Cleaned, etc.	✓	✓	✓	N/A
Turbine/Generator ("TG") Coolers Backwashed, Cleaned, etc.	✓	✓	✓	N/A
Vacuum Pump Coolers Backwashed, Cleaned, etc.	✓	✓	✓	N/A

**Boiler:**

Pre-Outage Valve Survey Conducted of Boiler Drains	✓	✓	✓	N/A
Service pressure test on Boiler for Tube Leaks	✓	✓	✓	N/A

**Condenser Air Extraction System:**

Vacuum Pumps Available and Tested for STBY 'Auto-Start'	✓	✓	✓	N/A
Vacuum Pump Seal Water Tank Water Level Controller Operational	✓	✓	✓	N/A
Vacuum Pump Seal Water Pump Operational	✓	✓	✓	N/A
Condenser Vacuum Breakers Operational	✓	✓	✓	N/A

**High Pressure ("HP") FeedWater System:**

**Boiler Feed Pumps:**

	Status of Test			
	Unit 1	Unit 2	Unit 3	BoP
Boiler Feed Pumps Available	✓	✓	✓	N/A
Boiler Feed Pump Oil Tank Normal Operating Level and Checked for Moisture content	✓	✓	✓	N/A
Boiler Feed Pump Auxiliary Oil Pumps Available	✓	✓	✓	N/A
Boiler Feed Pump Suction Valves and Limit Switches	✓	✓	✓	N/A
Boiler Feed Pump Emergency Gland Seal Injection Pump Available	✓	✓	✓	N/A
Boiler Feed Pump Emergency Gland Seal Pump Oil Normal Operating Level	✓	✓	✓	N/A
Boiler Feed Pump Gland Seal Water Available from the Emergency Pump and Condensate Extraction Pumps	✓	✓	✓	N/A
Boiler Feed Pump Gland Seal Water Control Valve Operational	✓	✓	✓	N/A
Boiler Feed Pump Gland Seal Water Drains Tank Level Float Operated Valve Operational (Units 1 and 2)	✓	✓	N/A	N/A
Boiler Feed Pump Gland Seal Water Transfer Pumps Operational (Units 1 and 2)	✓	✓	N/A	N/A
Boiler Feed Pump Gland Seal Water Drains Tank Level Control Valve Operational (Unit 3)	N/A	N/A	✓	N/A
Boiler Feed Pump Gland Seal Water Transfer Pumps Operational (Unit 3)	N/A	N/A	✓	N/A
Boiler Feed Pump Recirculation Control Valves Operational	✓	✓	✓	N/A
Boiler Feed Pump Motorized Discharge Pilot and Main Valves Operational	✓	✓	✓	N/A
Low Load FeedWater Isolator and Control Valves Operational	✓	✓	✓	N/A
Main FeedWater Isolator and Control Valves Operational	✓	✓	✓	N/A
High Pressure Heater Motorized Valves (Inlet, Outlet and Bypass) Checked for Proper Operation, Sequencing, etc.	✓	✓	✓	N/A

**Miscellaneous:**

Economizer 'Manual' Operated Valve Operational	✓	✓	✓	N/A
Economizer Motorized Recirculation Valve Operational (Unit 3)	N/A	N/A	✓	N/A
Boiler Drum Level Instrumentation Operational Work on West Xmitter	✓	✓	✓	N/A
HP Heater Bled Steam Check Valves Operational	✓	✓	✓	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable



Holyrood Thermal Generating Station

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	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
Start-up Desuperheater Steam and Water Valving Operation/Position Verified	✓	✓	✓	N/A
Main Steam and Reheat Steam Desuperheater Spray Water Isolators and Control Valves Operational	✓	✓	✓	N/A
Auxiliary Steam Desuperheater Spray Water Control Valve Operational (U3)	N/A	N/A	✓	N/A

**Low Pressure ("LP") FeedWater System:**

**Condenser:**

Condenser Hotwell Make-Up/Surplus Control Valves Operation Verified	✓	✓	✓	N/A
Condenser Hotwell Make-Up Motorized Isolating Valve Operation Verified	✓	✓	✓	N/A
Condenser Dye Test for Leaks, as Required	✓	✓	✓	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable

	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
<b>Ammonia and Control System:</b>				
Adequate Supply in Place	N/A	N/A	N/A	✓
Pumps Operational	N/A	N/A	N/A	✓
Control Instrumentation Operational	N/A	N/A	N/A	✓

**Condensate Extraction Pumps:**

Condensate Extraction Pumps Available	✓	✓	✓	N/A
Condensate Extraction Pump Motors Bearing Oil Normal Operating Level	✓	✓	✓	N/A
Condensate Extraction Pump Motor Cooling Water Available (Unit 3)	N/A	N/A	✓	N/A

**Condensate Polishers:**

Resin Integrity verified	✓	✓	✓	N/A
Two Polishers Rinsed and Available	✓	✓	✓	N/A
Valve Operation (Normal and Regenerating, etc.)	✓	✓	✓	N/A
Regeneration System Skids Available (Valving, Pumps, Blowers, Tanks etc.)	✓	✓	✓	N/A
Condensate Polisher Bypass Control Valve Operational	✓	✓	✓	N/A

**Low Pressure Heaters:**

Low Load Recirculation Control Valve Operation	✓	✓	✓	N/A
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**Deaerator:**

Deaerator Normal Operating Level	✓	✓	✓	N/A
Deaerator Steam Coil Operational	✓	✓	✓	N/A
Deaerator Pegging Steam Operational	✓	✓	✓	N/A
Deaerator Low Level Trip Test	✓	✓	✓	N/A

**Miscellaneous:**

Condenser Flash Tank Control Valve Operation / position	✓	✓	✓	N/A
Turbine Low Pressure Exhaust Hood Spray Motorized Valve Operation	✓	✓	✓	N/A
Start-up Desuperheater Steam and Water valving Operational (Units 1 and 2)	✓	✓	N/A	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable



Holyrood Thermal Generating Station

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	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
LP Heater Bled Steam Check Valves Operational	✓	✓	✓	N/A

**Bled Steam and Heater Drains System:**

LP and HP Instrumentation and Control Operational	✓	✓	✓	N/A
LP and HP Heater Level Control Operational	✓	✓	✓	N/A
LP Heater Condensate Drains Pumps Operational	✓	✓	✓	N/A
#4 HP Heater Condensate Drains Pump Operational	✓	✓	✓	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable

	Status of Test		
	Unit 1	Unit 2	Unit 3
<b>Air and Flue Gas System:</b>			
Instrumentation and Control Operational	✓	✓	✓
			N/A
<b>Forced Draft ("FD") Fans and Air Dampers:</b>			
Two FD Fans Available	✓	✓	✓
Bearing Oil Normal Operating Level	✓	✓	✓
Cooling Water on to Fans	✓	✓	✓
Stroke Variable Inlet Vanes ("VIVs")	✓	✓	✓
Stroke Discharge Dampers	✓	✓	✓
FD Fan Motor Variable Speed Drives Operational	✓	✓	✓
All Burner Auxiliary Air Dampers/Positioners Operation (Units 1 and 2)	✓	✓	N/A
All Elevation Air Flow Dampers/Positioners Operation (Unit 3) Middle Center	N/A	N/A	✓
			N/A
<b>Rotary Air Heaters:</b>			
Rotary Air Heaters Operational	✓	✓	✓
Rotary Air Heaters Bearing Oil (Top and Bottom) Normal Operating Level	✓	✓	✓
Rotary Air Heaters Bearing Cooling Water On	✓	✓	✓
Rotary Air Heaters Electric Motor Drives Operational	✓	✓	✓
Rotary Air Heaters Air Supply to Air Heater Air Motor Drives Open	✓	✓	✓
Rotary Air Heaters Start-up of Air Motor Drive upon loss of AC Power Supply to the Normal Operating Electric Drive Motor	✓	✓	✓
Rotary Air Heaters Steam Supply Control Valves Operational (*Note: Two Steam Supplies on (Units 1 and 2))	✓	✓	✓
Rotary Air Heaters Sootblowers Operational	✓	✓	✓
			N/A
			N/A
			N/A
<b>Boiler Sootblowing System:</b>			
Sootblower Control Panel Operational	✓	✓	✓
Sootblowers Steam Supply Control Valve Operational	✓	✓	✓
			N/A
			N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable

Holyrood Thermal Generating Station

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	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
Sootblowers Overhauled during Annual Outage Verify Operation (eg Rotation, Travel Advancing/Retracting from Furnace, Leaks, etc.) First Time Unit is Placed on Line	✓	✓	✓	N/A

**Light Fuel Oil System:**

Hydro Pad Operational (Accumulator)	✓	✓	✓	N/A
Light Oil Pumps Available	✓	✓	✓	N/A
Pumps, Valves (Including Control and Trip), Lines, Strainers, Pressure (Locally and UCB)	✓	✓	✓	N/A
Check Light Oil Supply and Return Lines to/from Plant Respectively	N/A	N/A	N/A	✓
Suction Strainers Cleaned with Covers Secured	✓	✓	✓	N/A
Ignitors Cleaned, Securely in Place with Associated Lines Securely Fastened	✓	✓	✓	N/A
Ignitors all Checked for Operation During Unit Start-up (eg Ignitor Control Box, Valve Operation, Lighting, etc.)	✓	✓	✓	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable



	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
<b>Fuel Oil Delivery System, Auxiliary Steam and Fuel Oil Piping System:</b>				
Adequate Heavy Oil Storage	N/A	N/A	N/A	✓
Heavy Oil Piping from Dock to Tankfarm, Tankfarm to Plant Day Tank and Day Tank to Heavy Oil Sets	N/A	N/A	N/A	✓
Adequate Light Oil Storage	N/A	N/A	N/A	✓
Light Oil Piping from Road Tanker Transfer Pump to Tanks and from Tanks to Light Oil Sets in Plant	N/A	N/A	N/A	✓
All Storage Tanks Suction Heaters Available when Required	N/A	N/A	N/A	✓
All Storage Tanks Platform Heaters Available when Required	N/A	N/A	N/A	✓
Auxiliary Steam for Suction Heaters Available	N/A	N/A	N/A	✓
Auxiliary Steam for Platform Heaters Available	N/A	N/A	N/A	✓
Auxiliary Steam for Heat Tracing Available	N/A	N/A	N/A	✓
Electrical Heat Tracing for Fuel Oil Lines Available	N/A	N/A	N/A	✓
Day Tank Supply Line Trip Valve Tested	N/A	N/A	N/A	✓
Day Tank Available to Receive Oil	N/A	N/A	N/A	✓
Day Tank Steam Coil Available	N/A	N/A	N/A	✓

**Fuel (Heavy) Oil System:**

Fuel Oil Heating Sets:	✓	✓	✓	N/A
Fuel Oil Heaters Available	✓	✓	✓	N/A
Fuel Oil Heaters Cleaned and Inspected	✓	✓	✓	N/A
Steam Supply to Heavy Oil Set Heaters Available as Required	✓	✓	✓	N/A
Fuel Oil Heaters Temperature Steam Control Valve Operational	✓	✓	✓	N/A
Suction Strainers Cleaned (Including Standby and Extras) with Covers Secured	✓	✓	✓	N/A
Fuel Oil Accumulator Operational	✓	✓	✓	N/A
Fuel Oil Pumps Available	✓	✓	✓	N/A
Pumps 'Auto-Start' check Off-Line	✓	✓	✓	N/A
Header Pressure Control Valve Operational	✓	✓	✓	N/A
Fuel Oil Meter Operational	✓	✓	✓	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable



Holyrood Thermal Generating Station

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Status of Test			
Unit 1	Unit 2	Unit 3	BoP

**Fuel Oil Supply Control, Trip, Long and Short Recirculation Valves:**

Fuel Oil Supply Control Valve Operational	✓	✓	✓	N/A
Fuel Oil Trip Valve Operational	✓	✓	✓	N/A
Fuel Oil Long Recirculation Valve Operational (Units 1 and 2)	✓	✓	N/A	N/A
Fuel Oil Short Recirculation Valve Operational (Units 1 and 2)	✓	✓	N/A	N/A
Elevation Fuel Oil Trip Valves Operational (Unit 3)	N/A	N/A	✓	N/A
Elevation Fuel Oil Minimum Supply Control Valves Operational (Unit 3)	N/A	N/A	✓	N/A
Elevation Fuel Oil Supply Control Valves Operational (Unit 3)	N/A	N/A	✓	N/A
Main Fuel Oil Recirculation Valve Operational (Unit 3)	N/A	N/A	✓	N/A
Elevation Recirculation Valves Operational (Unit 3)	N/A	N/A	✓	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable

	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
<b>Burners:</b>				
All Burners Cleaned, Securely in Place with Associated Lines Securely Fastened	✓	✓	✓	N/A
All Burners Checked for Operation During Unit Start-up (e.g. Advancing/Retracting, Valve Operation, Lighting, etc.)	✓	✓	✓	N/A
All Burner Tilts Checked for Operation (Units 1 and 2)	✓	✓	N/A	N/A
<b>Fuel Additive System:</b>				
Adequate Supply Available	✓	✓	✓	N/A
Pumps Available	✓	✓	✓	N/A
Tanks, Agitators, etc. Available	✓	✓	✓	N/A
<b>General Service ("GS") System:</b>				
GS Heat Exchangers Backwashed, Cleaned, etc.	✓	✓	✓	N/A
Stage I GS Plate Cooler Strainers Cleaned	✓	✓	✓	N/A
Stage I GS 'Auto-Clean' Strainer Operational	✓	✓	✓	N/A
Stage I GS Duplex Strainers Cleaned	✓	✓	✓	N/A
GS Pump Suction Strainers Cleaned	✓	✓	✓	N/A
GS Pump Oil Normal Operating Level	✓	✓	✓	N/A
GS Pumps Available and Tested for STBY 'Auto-Start'	✓	✓	✓	N/A
<b>Turbine/Generator Auxiliary Cooling System:</b>				
Turbine Generator Head Tank Normal Operating Level	✓	✓	✓	N/A
Turbine Lube Oil Coolers Operational	✓	✓	✓	N/A
Turbine Generator Heat Exchangers Backwashed, Cleaned, etc.	✓	✓	✓	N/A
Turbine Generator Pump Oil Normal Operating Level	✓	✓	✓	N/A
Turbine Generator Pumps Available and Tested for STBY 'Auto-Start'	✓	✓	✓	N/A
<b>Turbine Generator System:</b>				
<b>Hydraulic System Units 1 and 2:</b>				
Hydraulic System Accumulators Operational	✓	✓	N/A	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable



Holyrood Thermal Generating Station

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	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
Hydraulic System Storage Tank Normal Operating Level and Checked for Moisture Content	✓	✓	N/A	N/A
Hydraulic System Storage Tank air Purging of Moisture in Place	✓	✓	N/A	N/A
Hydraulic Set Primary, Secondary Filter Indications OK	✓	✓	N/A	N/A
Two Hydraulic Fluid Pumps Availability	✓	✓	N/A	N/A
Hydraulic Pump Auto Start Testing	✓	✓	N/A	N/A
Two Hydraulic Fluid Pump Coolers Availability	✓	✓	N/A	N/A

**Valves:**

Pre-Outlet Valve Survey conducted of Boiler Drains	✓	✓	✓	N/A
Turbine Main Stop Valve Testing (Units 1 and 2)	✓	✓	N/A	N/A
Turbine Two Main Stop Valves Testing (Unit 3)	N/A	N/A	✓	N/A
Turbine 'Left-Hand' and 'Right Hand' Reheat Stop and Intercept Control Valve Testing Verified	✓	✓	✓	N/A
Turbine Six Main Control Valve Operation (Units 1 and 2)	✓	✓	N/A	N/A
Turbine Four Main Control Valve Operation (Unit 3)	N/A	N/A	✓	N/A
Turbine Blowdown Valve Operation		✓	✓	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable

	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
<b>Lubricating System:</b>				
Lube Oil Tank Normal Operating Level and Checked for Moisture Content	✓	✓	✓	N/A
Portable Centrifuge Operational	N/A	N/A	N/A	✓
Lube Oil Tank Vapor Extractor Operation	✓	✓	✓	N/A
Bowser Oil Conditioner Vapor Extractor Operation (Units 1 and 2)	✓	✓	N/A	N/A
Two (2) AC Lube Oil pumps Available and Tested for STBY 'Auto-Start' (Units 1 and 2)	✓	✓	N/A	N/A
DC Pump Testing and Starting from UCB (Units 1 and 2)	✓	✓	N/A	N/A
Verify Discharge Pressure of EACH AC Lube Oil Pumps (Locally and UCB) (Units 1 and 2)	✓	✓	N/A	N/A
Verify Discharge Pressure of DC Lube Oil Pump (Locally and UCB) (Units 1 and 2)	✓	✓	N/A	N/A
Jacking Oil Pump Testing and Starting from UCB (Unit 3)	N/A	N/A	✓	N/A
Verify Discharge Pressure of Jacking Oil Pump (Locally and UCB)	N/A	N/A	✓	N/A
Auxiliary Oil Pump 'AOP' Testing and Starting from UCB and Turbine Lube Oil Tank (Unit 3)	N/A	N/A	✓	N/A
Verify Discharge Pressure of AOP Pump (Locally and UCB) (Unit 3)	N/A	N/A	✓	N/A
AC Pump Testing and Starting from UCB and Turbine Lube Oil Tank (Unit 3)	N/A	N/A	✓	N/A
Verify Discharge Pressure of AC Flushing Oil Pump (Locally and UCB) (Unit 3)	N/A	N/A	✓	N/A
DC Pump Testing and Starting from UCB and Turbine Lube Oil Tank (Unit 3)	N/A	N/A	✓	N/A
Verify Discharge Pressure of DC Flushing Oil Pump (Locally and UCB) (Unit 3)	N/A	N/A	✓	N/A
<b>Barring / Turning Gear:</b>				
Turning Gear Operation Verified	✓	✓	✓	N/A
Perform Trip Test of Turning Gear	✓	✓	✓	N/A
<b>Miscellaneous:</b>				
Steam Seal Regulator Operational	✓	✓	✓	N/A
Operational On-Line/Off-Line Overspeed Trip Tests	✓	✓	✓	N/A
<b>Hydrogen ("H2") and Carbon Dioxide ("CO2") System:</b>				
H2 Generation and Storage System:				
System in Operation	N/A	N/A	N/A	N/A
Electrolyzer/H2 Generator Operational	N/A	N/A	N/A	N/A
Chiller Operational	N/A	N/A	N/A	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable



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	Status of Test			
	Unit 1	Unit 2	Unit 3	BoP
DI Water Purifier Operational	N/A	N/A	N/A	N/A

**H2 and CO2 Bulk Packs:**

Adequate H2 Bulk Packs on Hand for Contingency Purposes	N/A	N/A	N/A	✓
CO2 Adequate Bulk Packs on hand	N/A	N/A	N/A	✓

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.  
 ✓ - Test completed  
 N/A - Not Applicable

	Status of Test			
	Unit 1	Unit 2	Unit 3	BoP
<b>Generator:</b>				
Generator Exciter Operation Checked Off and On-Line	✓	✓	✓	N/A
Seal Oil System Tested with 'Air' on Generator in preparation for Leak Testing	✓	✓	✓	N/A
Seal Oil Regulator Operational	✓	✓	✓	N/A
AC Seal Oil pumps Available and Tested for STBY 'Auto-Start' (Units 1 and 2)	✓	✓	N/A	N/A
AC Seal Oil Pump Available (Unit 3)	N/A	N/A	✓	N/A
DC Seal Oil Pump Available and Tested for STBY 'Auto-Start'	✓	✓	✓	N/A
Seal Oil Vacuum Pumps Available	✓	✓	✓	N/A
Vacuum Tank Level Control Operational	✓	✓	✓	N/A
H2 System in Operation and/or adequate Bulk Packs on Hand for Contingency Purposes	N/A	N/A	N/A	✓
CO2 Adequate Bulk Packs on Hand	N/A	N/A	N/A	✓
Leak Testing Performed Prior to 'Gassing Up' Generator	✓	✓	✓	N/A
Purity, Dew Point, etc Instrumentation Operation Verified	✓	✓	✓	N/A

**Powerhouse and Switchyard Single Line:**

**Plant 129V System:**

129 V Battery Banks Checked Stage I and II	N/A	N/A	N/A	✓
129V Battery Chargers Checked Stage I and II	N/A	N/A	N/A	✓

**Plant 258V System:**

258V Battery Banks Checked Stage I and II	N/A	N/A	N/A	✓
258V Battery Chargers Checked Stage I and II	N/A	N/A	N/A	✓

**Plant Uninterrupted Power Supplies 'UPS':**

Number's 1, 2, 3 and 4 'UPS' Power Supplies including Batteries, Cooling Fans, etc, Checked	N/A	N/A	N/A	✓
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**Emergency Diesel Generators:**

Stage I and II Emergency Diesel Generators Tested for Emergency Stop	N/A	N/A	N/A	✓
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S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable



Holyrood Thermal Generating Station

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	Status of Test			BoP
	Unit 1	Unit 2	Unit 3	
Stage I and II Emergency Diesel Generators Tested for Manual and Auto-Start Operation along with Auto Breaker Closure as well as Emergency Manual Closing of Breakers	N/A	N/A	N/A	✓
Diesel Bus Tie Breaker ("DBT") Operation Verified	N/A	N/A	N/A	✓

**Fire Protection System:**

All Fire Protection Zones in Service	N/A	N/A	N/A	✓
Fire Control/Alarm Panel Status	N/A	N/A	N/A	✓
Fire Alarm Beacons Operational	N/A	N/A	N/A	✓
Diesel Fire Pump Checked for 'Manual' and 'Auto' Start, etc.	N/A	N/A	N/A	✓
Diesel Fire Pump Controller, Charger and Battery Check	N/A	N/A	N/A	✓
Electric Fire Pump Checked for 'Manual' and 'Auto' Start, etc.	N/A	N/A	N/A	✓
Electric Fire Pump Controller Check	N/A	N/A	N/A	✓
Public Address System Status	N/A	N/A	N/A	✓

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable





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Status of Test			
Unit 1	Unit 2	Unit 3	BoP

**Holyrood Main Powerhouse:**

Back-Up ECC and Guardhouse Propane Generator	N/A	N/A	N/A	✓
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**Plant Air Conditioning System:**

Control and Relay Rooms	N/A	N/A	N/A	✓
Uninterrupted Power Supply 'UPS' #1 Room	N/A	N/A	N/A	✓
Generator Excitation and 'UPS' #s 2, 3 and 4 Room (Unit 3)	N/A	N/A	N/A	✓

**Plant Heating Steam:**

All Systems Operational for when Required	N/A	N/A	N/A	✓
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S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.  
 ✓ - Test completed  
 N/A - Not Applicable



# Appendix C

Status of Winter Readiness Testing of Plant and Equipment – Hydraulic Generation



	Status of Test										
	Cat Arm			Hinds Lake		Upper Salmon		Granite Canal		Paradise River	
	Unit 1	Unit 2	Bop PH	Unit 1	Bop	Unit 1	Bop	Unit 1	Bop	Unit 1	Bop
Following Annual outages, Unit is run up, Synchronized and all Systems verified before Operating Status determined, as per ECC, prior to coming Winter Operating Season to ensure preparedness. A Unit Load Test is performed at this time.	✓	✓	N/A	✓	✓	✓	N/A	✓	N/A	✓	N/A
Black Start Test of the Black Start Systems is performed prior to the Winter Operating Season. Station service transfers alternate sources.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Spherical Valves</b>											
Turbine Main Stop Valve Testing	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Turbine Main Stop Valve Operational	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Service Air, Instrument Air Systems Compressors</b>											
All Stationary Air Compressors available.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Air Compressor operational checks performed (e.g., oil levels, cooling water, etc.)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Air Compressor Standby/Sequencing Capability/Lead Lag/Standby	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
HP Compressors Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A
LP Compressor Available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Instrumentation Control and Alarms Operational	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>TG Cooling Water Systems</b>											
Cooling Water Pumps Available	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
Emergency Cooling Water Available Penstock Supply	✓	✓	✓	✓	✓	N/A	N/A	✓	✓	✓	✓
Cooling Water System Available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TG Pumps available and tested for Auto/Manual Start	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
Shaft Seal System Available	N/A	N/A	N/A	✓	✓	✓	N/A	✓	✓	✓	✓
CW Pump Motorized discharge valves 'Manual' and 'Auto', 'Cracked' Position operation verified.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotary (Water) Strainer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Turbine Generator Governor System</b>											
Hydraulic System Accumulators Operational	✓	✓	N/A	✓	N/A	✓	✓	✓	N/A	✓	N/A
Governor System Testing	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Governor System Available	✓	✓	N/A	✓	N/A	✓	N/A		N/A	✓	N/A
Hydraulic Pump(s) Available	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Hydraulic Pump Gov Auto Start Testing	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
<b>Generator</b>											
Generator Exciter Operation checked Off- and On-Line	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable

	Status of Test										
	Cat Arm			Hinds Lake		Upper Salmon		Granite Canal		Paradise River	
	Unit 1	Unit 2	Bop PH	Unit 1	Bop	Unit 1	Bop	Unit 1	Bop	Unit 1	Bop
<b>Lubricating System</b>											
Portable Centrifuge Operational	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Portable Oil Pump (Jacking)	✓	✓	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Oil Level System Generator Metering	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Oil Level System Turbine Metering	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	N/A	N/A
ac High Pressure Jacking Oil Pump Available Automatic	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	N/A	N/A
<b>Miscellaneous</b>											
Breaker and Disconnect Operation verified by Ops. Dept. and TRO Crew	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Control Structure</b>											
Water Elevation	N/A	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A
Gate Operation	N/A	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A
<b>Intake</b>											
Water Elevation	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Trashrack System	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Gate Operation	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
<b>Spillway/Bypass</b>											
Water Elevation	N/A	N/A	N/A	N/A	✓	N/A	✓	N/A	✓	✓	N/A
Gate Heating /Ice Away Unit	N/A	N/A	N/A	N/A	✓	N/A	✓	✓	✓	N/A	N/A
Gate Operation	N/A	N/A	N/A	N/A	✓	N/A	✓	N/A	✓	N/A	N/A
Emergency (Back-Up) Diesel Generator	N/A	N/A	N/A	N/A	✓	N/A	✓	N/A	N/A	N/A	N/A
Emergency Lift Operation and Tested	N/A	N/A	N/A	N/A	✓	N/A	✓	N/A	N/A	N/A	N/A
<b>Battery Banks And Battery Chargers</b>											
<b>Plant 129 V System</b>											
129 V Battery Banks Checked	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
129 V Battery Chargers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
129 V Battery Banks Available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Plant 48 V System</b>											
48 V Battery Banks Checked	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Emergency Diesel Generators</b>											
Emergency Diesel Generators Tested for Emergency Stop	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Emergency Diesel Generators Tested for Manual- and Auto-Start Operation along with Auto Breaker Closure as Well as Emergency Manual Closing of Breakers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Alternate ac Sources Available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Station Services Available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Transfer Alternate Source	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Plant Air Conditioning System</b>											
Control Rooms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Communications Rooms	N/A	N/A	✓	N/A	✓	N/A	✓	✓	✓	✓	✓
<b>Plant Heating Steam</b>											
All Systems Operational for When Required	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable

	Status of Test								
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Bop PH 1	BoP PH 2
Following Annual Outages, Unit is run up, Synchronized and all Systems verified before Operating Status determined, as per ECC, prior to coming Winter Operating Season to ensure preparedness. A Unit Load Test is performed at this time.	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Black Start Test of the Black Start Systems is performed prior to the Winter Operating Season. Station service transfers alternate sources.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
<b>Spherical Valves</b>									
Turbine Main Stop Valve Testing	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Turbine Main Stop Valve Operational	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
<b>Service Air, Instrument Air Systems Compressors</b>									
All Stationary Air Compressors Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Air Compressor Operational Checks Performed (e.g., Oil Levels, Cooling Water, Etc.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Air Compressor Standby/Sequencing Capability/Lead Lag/Standby	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
HP Compressors Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
LP Compressor Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Instrumentation Control and Alarms Operational	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
<b>TG Cooling Water Systems</b>									
Cooling Water Pumps Available	✓	✓	✓	✓	✓	✓	N/A	✓	N/A
Emergency Cooling Water Available Penstock Supply	✓	✓	✓	✓	✓	✓	N/A	✓	✓
Cooling Water System Available	✓	✓	✓	✓	✓	✓	✓	✓	✓
TG Pumps Available and Tested for Auto/Manual Start	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Shaft Seal System Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
CW Pump Motorized discharge valves 'Manual' & 'Auto', 'Cracked' Position Operation Verified. GCL/HLK	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rotary Strainer Inspected and Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Turbine Generator Governor System</b>									
Hydraulic System Accumulators Operational	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Governor System Testing	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Governor System Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Hydraulic Pump(s) Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Hydraulic Pump Gov Auto Start Testing	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
<b>Generator</b>									
Generator Exciter Operation Checked Off- and On-Line	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Generator Exciter Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
<b>Lubricating System</b>									
Portable Centrifuge Operational	✓	✓	✓	✓	✓	✓	✓	✓	✓
Portable Oil Pump (Jacking)	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Oil Level System Generator Metering Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Oil Level System Turbine Metering Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
ac High Pressure Jacking Oil Pump Available Automatic	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A	N/A

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable

	Status of Test								
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Bop PH 1	BoP PH 2
<b>Switchyard/Terminal Station</b>									
Breakers and Disconnects Operational	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Breaker and Disconnect Operation Verified by Ops. Dept. and TRO Bishops Falls	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
<b>Intake</b>									
Water Elevation	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Trashrack System	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Gate Operation	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
<b>Surge Tank</b>									
Heating System	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Alarm Systems	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
<b>Spillway</b>									
Water Elevation	✓	✓	✓	✓	✓	✓	✓	✓	N/A
Gate Heating/Ice Away Unit	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Gate Operation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Emergency (Back-Up) Diesel Generator	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Emergency Lift Operation and Tested	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
<b>Battery Banks and Battery Chargers</b>									
<b>Plant 129 V System</b>									
129 V Battery Banks Checked	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
129 V Battery Chargers	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
129 V Battery Banks Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
<b>Plant 48 V System</b>									
48 V Battery Banks checked	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
<b>Plant Uninterrupted Power Supplies ("UPS")</b>									
UPS Power Supplies (Inverter NWS)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
<b>Emergency Diesel Generators</b>									
Emergency Diesel Generators Tested for Emergency Stop.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Emergency Diesel Generators Tested for Manual- and Auto-Start Operation along with Auto Breaker Closure as well as Emergency Manual Closing of Breakers	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Alternate ac Sources Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Station Services Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Transfer Alternate Source	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
<b>Plant Air Conditioning System</b>									
Control Rooms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Communications Rooms	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
<b>Plant Heating Steam</b>									
All Systems Operational for When Required	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓

S/U - Final confirmation completed during Start Up. When possible, test also completed during annual outage.

✓ - Test completed

N/A - Not Applicable



# Appendix D

## Master Generation Outage Schedule



2019 Planned Generation Outage Schedule *																		
Unit	Month Week Starting MW	September			October			November			December			Scheduled Annual Maintenance Outages				
		15	22	29	6	13	20	27	3	10	17	24	1		8	15	22	29
Holyrood - G1 <sup>(1)</sup>	170																	29-Jul to 25-Oct
Holyrood - G2	170																	17-Jun to 1-Sep
Holyrood - G3 <sup>(2)</sup>	150																	1-Apr to 19-Jul, 29-Jul to 16-Sep
Bay d'Espoir - G1 <sup>(3)</sup>	76.5																	26-Oct to 15-Nov
Bay d'Espoir - G2 <sup>(3)</sup>	76.5																	14-Oct to 1-Nov
Bay d'Espoir - G3 <sup>(4)</sup>	76.5																	2-May to 17-May, 23-Nov to 30-Nov
Bay d'Espoir - G4 <sup>(5)</sup>	76.5																	5-May to 24-May
Bay d'Espoir - G5	76.5																	22-Mar to 18-Apr
Bay d'Espoir - G6	76.5																	17-Mar to 7-Apr
Bay d'Espoir - G7	154.4																	26-May to 23-Sep
Upper Salmon	84																	5-Oct to 18-Oct
Granite Canal	40																	16-Jun to 12-Jul
Hinds Lake	75																	18-Aug to 22-Nov
Cat Arm 1	67																	31-Jul to 6-Aug
Cat Arm 2	67																	4-Aug to 17-Aug
Paradise River	8																	26-May to 6-Jun
Hardwoods GT	50																	22-Apr to 27-Apr, 29-Sep to 8-Nov
Stephenville GT <sup>(6)</sup>	50																	28-May to 14-Jun, 17-Nov to 28-Nov
Holyrood CT	123.5																	9-Apr to 14-Apr, 10-Nov to 30-Nov
Star Lake	18																	15-Jul to 26-Jul
Exploits	63																	
CoGen	8																	
NLH Diesels <sup>(7),(8)</sup>	24.7																	
Newfoundland Power	119.3																	
CBPP 60 Hz	99.1																	
Available Island Capacity	2,000	1,403	1,554	1,426	1,589	1,512	1,596	1,647	1,743	1,670	1,575	1,673	1,974	1,975	1,975	1,975	1,975	
Forecasted Gross Island Peak Load		968	1,000	1,000	1,044	1,089	1,134	1,229	1,288	1,347	1,406	1,465	1,729	1,729	1,729	1,729	1,729	
Total Island Reserve <sup>(9),(10)</sup>		435	554	426	544	423	462	417	566	436	282	320	370	371	371	371	371	
Largest Island Operating Unit		170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	
Island N-1 Reserve		195	314	186	304	183	222	177	321	191	37	75	125	126	126	126	126	
Happy Valley GT	25																	

Legend	
Unit Available	White
Unit Unavailable	Dark Blue
Unit Derated	Light Blue
Unplanned/Extension	Gray

Notes

- (1) Holyrood Unit 1 previously available at 150 MW pending the completion of the safety valves testing. The unit returned to full capacity on October 31 after completion of the safety valves testing.
- (2) Holyrood Unit 3 previously available at 140 MW pending the completion of the safety valves testing. The unit returned to full capacity on October 1 after completion of the safety valves testing.
- (3) Bay d'Espoir Units 1 and 2 previously unavailable due to a penstock leak. The units returned to service on October 4.
- (4) Bay d'Espoir Unit 3 previously available at 70 MW due to a vibration issue. The unit returned to full capacity on November 30 after completion of repairs.
- (5) Bay d'Espoir Unit 4 previously unavailable due to a unit breaker failure. The unit returned to service on November 27 after the completion of the unit breaker replacement.
- (6) Stephenville Gas Turbine available at 25 MW due to the removal of End B engine for an overhaul. The unit is expected to return to full capacity in January 2020.
- (7) 24.7 MW include Hawke's Bay (5 MW), St. Anthony (9.7 MW), and Holyrood Diesels (10 MW).
- (8) St. Anthony Diesel Plant available at 8.85 MW due to automation upgrades on units 2003 and 229 (G7 and G8 respectively, 850 kW each). Expected to return to full capacity on December 6.
- (9) November's and December's Total Reserves reflect the planned agreements for CBPP Capacity Assistance (net 97 MW) and System Voltage Reduction (up to 20 MW).
- (10) December's Total Reserves reflect the planned agreements for CBPP Capacity Assistance (net 97 MW), System Voltage Reduction (up to 20 MW), and Vale Diesels (7.6 MW).

\* Preventive/Corrective Maintenance items that require short duration outages are not reflected in this chart. They are planned in conjunction with system operation for an appropriate time.



# Appendix E

## Critical Spares Status Listing – Thermal Generation



Critical Spares - Thermal Generation

Inventory Status		Explanation			
In Stock	Stock quantity of '1' or more in warehouse inventory				
Non Stock	Item is not stocked, '0' quantity in Warehouse, ordered as required. See NOTES.				
On Order	Quantity of '0' stock in warehouse, quantity of 1 or more on order				
Asset					
System	Sub-System	Asset	Inventory Status		
Critical Spare			Inventory Description		
System	Sub-System	Asset	Notes		
System	Sub-System	Asset	Defined Spare		
System	Sub-System	Asset	Notes		
System	Sub-System	Asset	Inventory Description		
System	Sub-System	Asset	Inventory Status		
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing	BEARING, PEERLESS INBOARD	In Stock
Fire Protection System	Electrical Driven Pump	Pump	Outboard Bearing	BEARING, PEERLESS OUTBOARD	In Stock
Fire Protection System	Electrical Driven Pump	Pump	Casing Ring	RING, PEERLESS CASING	In Stock
Fire Protection System	Electrical Driven Pump	Pump	Casing Gasket	GASKET, PEERLESS CASING	In Stock
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping	Valves	Day Tank Trip Valve	8" Butterfly Valve and Actuator	VALVE, BTFY 8" 150#	In Stock
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping		Day Tank Trip Valve	Actuator	ACTUATOR, BETTIS CB520	In Stock
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping		Fuel Line Block Valve	16" Gate Valve	VALVE, GATE 16" NEWCO	In Stock
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping		Day Tank Fill Line Control valve	6" Control Valve	VALVE, CONTROL 6" FISHER	In Stock
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping			Actuator	ACTUATOR, PNEU 1-BSW-5-LT	In Stock
Hydrogen Generation and Storage	Valves	Motorized Valves	1/2" Valve	SOLENOID, VALVE ASCO 8316	In Stock
Hydrogen Generation and Storage	Tubing		Tubing	TUBING, SS 1" OD X.083 316	In Stock
Powerhouse and Switchyard Single Line	129V DC System	Charger	Control Unit	CONTROL UNIT, BATTERY CHG 129V	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2205C	VALVE, JTT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2206C	VALVE, JTT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Anion Valve - KV3205C	VALVE, JTT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Anion Valve - KV3206C	VALVE, JTT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2203C	VALVE, JTT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2207C	VALVE, JTT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2202C	VALVE, JTT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2208C	VALVE, JTT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Anion Valve - KV3203C	VALVE, JTT	In Stock

Critical Spares - Thermal Generation

Asset				Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Anion Valve - KV3207C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Anion Valve - KV3202C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Anion Valve - KV3208C		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Mixed Bed Valve - KV4003B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Mixed Bed Valve - KV4004A		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Mixed Bed Valve - KV4005B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Mixed Bed Valve - KV4006B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Mixed Bed Valve - KV4007B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Mixed Bed Valve - KV4008B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Mixed Bed Valve - KV4009B		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Mixed Bed Valve - KV4010A		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Mixed Bed Valve - KV4011A		VALVE,ITT	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Mixed Bed Valve - PCV4071	Non-Stock is OK since there are non critical uses for this TX which can be "borrowed)	VALVE,PRESS REGULATING	Non-Stock	
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Sodium Monitor	Non-Stock is OK since there are non critical uses for this TX which can be "borrowed)	ANALYZER,ORION 2111LLEN	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Clarifier	Agitator	Frequency Drive		CONTROLLER,SPEED CLARIFIER	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Clarifier	Agitator	Recirculator - Double Induction Speed Reducer - In Stock		RECIRCULATOR,STERLIN G 9A6108	In Stock	
Raw and Makeup Water System & Water Treatment Plant	Clearwell	Clearwell Pump	Pump, single stage, 750GPM	Critical repair parts stocked for this pump. No need to stock the entire pump.	PUMP ASSY, KSB 6"	Non-Stock	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping		Dock Quick Closing Valves	18 " Butterfly Valve		VALVE,BTFY 18" 150#	In Stock	
Fuel Oil Delivery System Aux. Steam & Fuel Oil Piping		Dock Capstan	Gear Box		CAPSTAN GEARBOX,SADI	In Stock	
Fire Protection System	Electrical Driven Pump	Control Panel	Fire Pump Controller	Spare Controller on site in Warehouse	N/A	Non-Stock	
Powerhouse and Switchyard Single Line	129V DC System	129 VDC Panel - Unit 1, 2, 3, Common	30A DC Breaker		BREAKER,DC HFD2030 30A	In Stock	
Powerhouse and Switchyard Single Line	129V DC System	129 VDC Panel - Unit 1, 2, 3, Common	25A DC Breaker		BREAKER,DC HFD2025 25A	In Stock	



Critical Spares - Thermal Generation

Asset				Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Powerhouse and Switchyard Single Line	129V DC System	129 VDC Panel - Unit 1, 2, 3, Common	15A DC Breaker		BREAKER,DC HFD2015 15A	In Stock	
Powerhouse and Switchyard Single Line	129V DC System	129 VDC Panel - Unit 1, 2, 3, Common	400A DC Breaker		BREAKER,DC KD3400 400A	In Stock	
Powerhouse and Switchyard Single Line	129V DC System	129 VDC Panel - Unit 1, 2, 3, Common	50A DC Breaker		BREAKER,DC HFD2050 50A	In Stock	
Powerhouse and Switchyard Single Line	129V DC System	Charger	Control Unit		CONTROL UNIT,BATTERY CHG 129V	In Stock	
Circulating Water and Screen Wash System	CW Discharge Valves	Butterfly Valve	36" Butterfly Valve		VALVE,BUTTERFLY 36"	In Stock	
Circulating Water and Screen Wash System	CW Discharge Valves	Butterfly Valve	Actuator		ACTUATOR ASSY,ROTORK	In Stock	
Circulating Water and Screen Wash System	CW Pumps	Motor	Coils		WINDING COILS	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Network Interface Modules		MODULE,NETWORK INTERFACE	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Master Fuel Trip Relays		RELAY,AB TYPE P	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	DCS Control Processor		MODULE,PROCESSOR FOXBORO	In Stock	
Combustion Air & Gas Instruments	Burner Management	Flame Scanners	24Vdc Scanner Power Supply		POWER SUPPLY,WEIDMULLER	In Stock	
Combustion Air & Gas Instruments	Burner Management	Air Flow Transmitters	Transmitter		TRANSMITTER, DP 1 KPA TO 1 KPA	In Stock	
Combustion Air & Gas Instruments	Burner Management	Oil Flow Transmitter	Transmitter - Unit 1	One spare F.O. Flow TX for both units	FLOWMETER,ROSE	In Stock	
Generator	Seal Oil System	Seals	See Parts List #U1&2 - 1 from Service Contractor		HYDROGEN SEAL RINGS,GE	In Stock	
Generator	Exciter	Controls	ArcNet Coupler		CARD,ABB UNS0672	In Stock	
Generator	Exciter	Controls	Conduction Monitor		CARD,ABB UNS0673	In Stock	
Generator	Exciter	Controls	Crowbar		CARD,ABB UNS0017AVAR1	In Stock	
Generator	Exciter	Controls	Digital ArcNet		CARD,ABB UPC090	In Stock	
Generator	Exciter	Controls	Binary Input		CARD,ABB UFC092	In Stock	
Generator	Exciter	Controls	Output Relay		CARD,ABB ARC093	In Stock	
Generator	Exciter	Controls	Measuring Card		CARD,ABB UNC4672	In Stock	
Generator	Exciter	Controls	Measuring Card		CARD,ABB UNC4673	In Stock	
Generator	Exciter	Controls	I/O Connection		CARD,ABB UNC4674	In Stock	
Generator	Exciter	Controls	Converter		CARD,ABB UNS3670	In Stock	
Generator	Exciter	Controls	Snubber Bridge		SNUBBER,ABB UNS4681V12	In Stock	
Generator	Exciter	Controls	Control		CARD,ABB HIEE300900R0001	In Stock	
Generator	Exciter	Controls	Power Supply		CARD,ABB KUC321	In Stock	
Generator	Exciter	Controls	Pulse Gen		CARD,ABB GDB021	In Stock	
Generator	Exciter	Controls	Combined I/O		CARD,ABB UAC326	In Stock	
Generator	Exciter	Controls	Control Panel		CARD,ABB AFC094	In Stock	
Generator	Exciter	Controls	Breaker		BREAKER,FIELD ABB F3/SE	In Stock	
Generator	Exciter		Transformer	On Site	N/A	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Generator	Stator	PT Cubicle	Primary Contact for Generator P. T.		CONTACT ASSY,PT	In Stock
Generator	Seal Oil System	Regulator	1.5" Regulating Valve		SEAL OIL REG KIT, RK	In Stock
Ignitor Light Oil and Air Supply	Light Oil	Trip Valve	1" Valve		VALVE,FISH F.O. TRIP	In Stock
Ignitor Light Oil and Air Supply	Light Oil	Igniter Control Box	Ignition Transformer		XFMR,FOSSIL S870-542F	In Stock
Ignitor Light Oil and Air Supply	Light Oil	Igniter Control Box	Sunspot		BASE,AMPLIFIER & TERMINAL	In Stock
Ignitor Light Oil and Air Supply	Light Oil	Igniter Control Box	Valve Assembly / Oil Igniter		IGNITER,ASSEMBLY ALSTOM	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Level Transmitter		TRANSMITTER,LEVEL	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Aquarian Alarm Modules		MODULE,AQUARIAN	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Relays		RELAY,PLUG-IN 12 PIN AC	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Solenoid		SOLENOID,ASCO 8300 125 VDC	In Stock
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Conductivity Probe		PROBE,GUIDED WAVE RADAR 26"	In Stock
L.P. Feedwater System	Deaerator System	Level Control	Level Switch		SWITCH,LEVEL MOBREY	In Stock
L.P. Feedwater System	Deaerator System	Level Control	Level Transmitter		TRANSMITTER,LEVEL	In Stock
L.P. Feedwater System	Deaerator System	Level Control	Relay		RELAY,PLUG-IN 12 PIN AC	In Stock
L.P. Feedwater System	Ammonia System		Bulk Chemical		AMMONIUM HYDROXIDE,20% TOTE	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	12" -150# Gasket Kit		GASKET,S&K 74S0397V0010	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	O-Rings		O-RING,S&K 75S0144V0090	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	Packing		PACKING,S&K 24"	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	Packing		PACKING,S&K 16"	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	Packing		PACKING,S&K 12"	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves	Seal washers		SEAL,S&K 75G0181V0020	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves - #1&2 LP Heaters	Gasket		GASKET,S&K 67S0064V0010	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves	O-Rings		O-RING,S&K 75S0144V0100	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves	Packing		PACKING,S&K 75G0100V0040	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves	Packing		PACKING,S&K 75G0100V0040	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves	Seal washers		SEAL,S&K 75G0181V0050	In Stock

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
L.P. Feedwater System	Polisher Bypass Valve		Valve	Non-Stock is OK since there are full rebuild items identified and stocked	VALVE, FISH 5080326PTBNN	Non-Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Valve		VALVE KIT, BALL 3	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Actuator		ACTUATOR KIT, WORCH D-38	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Valve		VALVE KIT, BALL 2	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2)	Valves	Actuator		ACTUATOR KIT, WORCH C-38	In Stock
Main Steam & Reheat Steam; Turbine Drains	Vacuum Trip Device		Pressure Transmitter - Unit 1		TRANSMITTER, PRESS - 30-0"	In Stock
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - cable assemblies		CABLE ASSY, SERVO G.E.	In Stock
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 50 gal. Intercept Control Valve Servos		VALVE, SERVO 50.0 GPM	In Stock
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 50 gal. Main Control Valve Servos		VALVE, SERVO 50.0 GPM	In Stock
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 6 gal. Intercept Control Valve Servos (scram)		VALVE, SERVO 9.0-11.0 GPM	In Stock
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - 6 gal. Main Stop Valve Servos		VALVE, SERVO 9.0-11.0 GPM	In Stock
Turbine Generator System Stage 1	Governor	Governor	Linear Variable Differential Transducer for Intercept Control Valve & Main Control Valve		TRANSDUCER, GE	In Stock
Turbine Generator System Stage 1	Governor	Governor	Linear Variable Differential Transducers for 1 per Main Stop Valve		TRANSDUCER, GE	In Stock
Turbine Generator System Stage 1	Governor	Governor	Cable		CABLE SET, FLUID POWER	In Stock
Turbine Generator System Stage 1	Governor	Governor	Valve		VALVE, FLUID POWER PILOT	In Stock
Turbine Generator System Stage 1	Governor	Governor	Sensor		SENSOR, FLUID POWER	In Stock
Turbine Generator System Stage 1	Governor	Governor	Coil		COIL, FLUID POWER	In Stock
Turbine Generator System Stage 1	Governor	Governor	Go Switch - Limit Switches		SWITCH, LIMIT GO LEVER	In Stock
Turbine Generator System Stage 1	Governor	Governor	Cable Set		CABLE SET, FLUID POWER	In Stock
Turbine Generator System Stage 1	Governor	Governor	Valve		VALVE, FLUID POWER PILOT	In Stock
Turbine Generator System Stage 1	Governor	Governor	Sensor		SENSOR, FLUID POWER	In Stock
Turbine Generator System Stage 1	Governor	Governor	Coil		COIL, FLUID POWER	In Stock
Turbine Generator System Stage 1	Governor	Governor	O-Ring Kit		O-RING KIT, FLUID POWER	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	RES, 500HM, 5%, 40 WATT		RESISTOR, 500HM	In Stock

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Turbine Generator System Stage 1	Governor	Turbine Control System	DIODE MOD,1200V,45A,SKKD46/12		DIODE,MOD 1200V	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	RELAY		RELAY,12HGA11J52	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	CPF MK5 CONTROL POWE		CONTROL,MK5 POWER	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	TERMINATOR,93 OHMS		TERMINATOR,93 OHMS	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	RESISTOR		RESISTOR,323A2354P1	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	RESISTOR		RESISTOR,323A2354P2	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	RES 100 OHM 5% 40W		RESISTOR,100 OHM	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	CAP-METALLIZED-MYLAR		CAP,METALLIZED MYLAR	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, C-Core Terminal Board		TERMINAL BOARD,MKV C-CORE	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Terminal Board, Digital I/O		TERMINAL BOARD,DIGITAL I/O	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Terminal Board, Digital I/O		TERMINAL BOARD,DIGITAL I/O	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Terminal Board, Relay/Solenoid		TERMINAL BOARD,MKV RELAY	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Terminal Board, Relay/Solenoid		TERMINAL BOARD,MKV RELAY	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, P-Core Terminal Board		TERMINAL BOARD,MKV P-CORE	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	TERM. BOARD (R-S-T)	DS200QTBAG1A is superseded by DS200QTBAG3A	TERMINAL BOARD,(R-S-T)	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	Main Control Card	New no longer available, remain only	BOARD,GE DS200SDCCG4A	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, LAN Comm Interface Card		BOARD,GE DS200SLCC G3A/PS	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV,Thermocouple Terminal Board		TERMINAL BOARD,THERMOCOUPLE	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV,TERM.BD @R-S-T TC		TERMINAL BOARD,MKV	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKVe, Analog I/O Terminal Board		TERMINAL BOARD,ANALOG I/O	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKVe, Analog I/O Terminal Board		TERMINAL BOARD,ANALOG I/O	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV,TERM BD (R-S-T) EXT		TERMINAL BOARD,(R-S-T) EXT	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Common Analog Card	New no longer available, remain only	BOARD,GE DS200TCCAG1B	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, DIG. I/O BD. CONF. C		BOARD,GE DS200TCDAH1B/PS	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Emergency Overspeed Card	New no longer available, remain only, Has age sensitive components,	BOARD,GE DS200TCEAG1B	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, COMM. CIRCUITS FOR T	Has age sensitive components	BOARD,GE DS200TCEBG1B	In Stock

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Turbine Generator System Stage 1	Governor	Turbine Control System	PDM, Switch & Fuse Card		BOARD,GE DS200TCPDGB1B	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, DC INPUT PWR SUPPLY	New no longer available, reman only, Has age sensitive components,	BOARD,GE DS200TCPSG1A	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Analog I/O Card		BOARD,GE DS200TCQAG1B	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, (RST) Extended Analog I/O Card	New no longer available, reman only	CARD,EXTENDED MKV (RST)	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, BOARD-(RST) OVERFLOW	New no longer available, reman only	BOARD,GE DS200TCQCG1B	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Relay Output Card		BOARD,GE DS200TCRAG1A/PS	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Turbine Trip Card	New no longer available, reman only	BOARD,GE DS200TCTSG1A	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	MODULE,AC TO DC	DS2020DACAG1 has been superseded by DS2020DACAG2	MODULE,AC TO DC	In Stock	
Turbine Generator System Stage 1	Governor	Turbine Control System	(Commissioning Kit) Fuses, Resistors, Diodes, Relays		SPARE KIT,MKV	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	DC Oil Pump	Pump		PUMP,DC LUBE OIL	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	DC Motor	Motor		MOTOR,DC LUBE OIL PUMP	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	Pressure Switches	Switch		SWITCH,PRESS 0-150 PSI	In Stock	
Turbine Generator System Stage 1	Hydraulic Fluid System	Fluid Pumps	Pump		PUMP,HYD FLUID POWER UNIT	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Shaft		SHAFT,IR 10 (TYPE 2 ERVH)	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Impeller		IMPELLER,IR 2RVH3DX1- 813	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Sleeve		SLEEVE,I RAND 175B135NX1B-204	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Oil Pumps	Key		KEY,IMPELLER IR 11A9C37	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	AC Motor	Motor		MOTOR,ELECT 20HP 575VAC	In Stock	
Turbine Generator System Stage 1	Turbine Lube Oil System	Pressure Switch 2	Switch		SWITCH,PRESS 0-150 PSI	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Main Steam Valve - Actuator	Bushing		BUSHING,FISH 1E845714012	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Main Steam Valve - Actuator	Diaphragm		DIAPHRAGM,FISH 2E859802202	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Main Steam Valve - Actuator	Repair Kit		ACTUATOR KIT,FISH R667X000502	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Main Steam Valve - Body	Packing		PACKING KIT,FISH RPACKX0011	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Turbine Generator System Stage 1	Steam Seal Regulator	Main Steam Valve - Body	Positioner		POSITIONER,FISH DVC6200	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Actuator	Diaphragm		DIAPHRAGM,FISH 2N130902202	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Actuator	Repair Kit		ACTUATOR KIT,FISH R667X000702	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Gasket		GASKET SET,FISH RGASKETX232	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Plug/Stem		PLUG/STEM,FISH 27A3965X052	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Cage		CAGE,FISH 20A3245X092	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Ring		RING,FISH 17A3991X022	In Stock	
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Seat Ring		RING,FISH 20A3260X152	In Stock	
Units 1 & 2 Air & Flue Gas	Furnace Pressure TX (Trip)	Pressure Transmitter	Pressure Transmitter		TRANSMITTER,DP -8000- 8000KPA	In Stock	
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Baskets	Basket Set	To be ordered & stocked as required	BASKET SET,AIR HEATER 21-1/2"	Non-Stock	
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Baskets	Basket Set	To be ordered & stocked as required	BASKET SET,AIR HEATER U1	Non-Stock	
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Rotating Element & Bearings	Bearing		BEARING,BALL 23034CCK/C3W33	In Stock	
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Rotating Element & Bearings	Seal		SEAL,HOWDEN 68-01- 615	In Stock	
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Drive System	Coupling		COUPLING,STEELEFLEX 1- 1/8 S-4	On Order	
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Drive System	Air Motor		AIR MOTOR,ING RAND	In Stock	
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Drive System	Motor		MOTOR,HEATER 1/3HP (XL GEAR)	In Stock	
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Soot Blowers	Sleeve		SLEEVE,RELIANCE 411629-6A	In Stock	
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Soot Blowers	Coupling		COUPLING,BORE 3/4X5/8	In Stock	
Units 1 & 2 Air & Flue Gas	Rotary Air Heaters	Soot Blowers	Roller assembly		ROLLER,ASSEMBLY	In Stock	
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Gasket		GASKET SET,FISH RGASKETX182	In Stock	
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Stud		STUD,DEW 0282336	In Stock	
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Cage		CAGE,FISH 2U224033272	In Stock	
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Plug/Stem		PLUG ASSY,FISH 1V6575X0052	In Stock	
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Ring		RING,FISH 1U222646172	In Stock	
Units 1 & 2 Fuel Oil System	Combustion Control Valve	Combustion Control Valve	Bushing		BUSHING,FISH 1E682814012	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Units 1 & 2 Fuel Oil System	Atomizing Steam Valve	Atomizing Steam Valve	2" Flanged Valve		VALVE,FISH ATOM STEAM	In Stock
Units 1 & 2 Fuel Oil System	Main Fuel Oil Trip Valve	Main Fuel Oil Trip Valve	Flanged Valve		VALVE,FISH F.O. TRIP	In Stock
Units 1 & 2 Fuel Oil System	Header Pressure Control Valve	Header Pressure Control Valve	Repair Kit		PACKING KIT,FISH RPACKX00012	In Stock
Units 1 & 2 Fuel Oil System	Header Pressure Control Valve	Header Pressure Control Valve	Diaphragm		DIAPHRAGM,FISH 2E670002202	In Stock
Units 1 & 2 Fuel Oil System	Fuel Oil Pumps	Fuel Oil Pumps	PUMP,IMO C324		PUMP,IMO C324 (COMPLETE)	In Stock
Units 1 & 2 Fuel Oil System	Mechanical Seal	Mechanical Seal	Seal		SEAL,MECHANICAL FUEL C324	In Stock
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Gasket Set		GASKET SET,FISH RGASKETX312	In Stock
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Packing		PACKING KIT,FISH RPACKX00012	In Stock
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Ring		RING,FISH 1U222535072	In Stock
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Plug/stem		PLUG/STEM,FISH 1U8350X0022	In Stock
Units 1 & 2 Fuel Oil System	Short Recirculation Valve	Short Recirculation Valve	Cage		CAGE,FISH 2U215033272	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculation Valve	Long Recirculation Valve	Gasket		GASKET,FISH 10A4154X012	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculation Valve	Long Recirculation Valve	Ring		RING,FISH 1U222835072	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculation Valve	Long Recirculation Valve	Diaphragm		DIAPHRAGM,FISH 2N126902202	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculation Valve	Long Recirculation Valve	Cage	Repair Parts Stocked Ref	CAGE,FISH 2U231833272	In Stock
Units 1 & 2 Fuel Oil System	Fuel Oil Heaters	Fuel Oil Heaters	Gaskets		GASKET,FUEL OIL HEATER	In Stock
Units 1 & 2 Fuel Oil System	Fuel Oil Heaters	Fuel Oil Heaters	Tube Bundles	Annual Inspection plus online Check. To be ordered as required.	HEATER,FUEL OIL STAGE 1	Non-Stock
Units 1 & 2 Fuel Oil System	Burners	Oil Valve	Oil, Steam & Scavange Valves - All Same		VALVE,BALL 3/4 C/W PNEU	In Stock
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Cage		CAGE,FISH 42B3570X012	In Stock
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Plug/stem		PLUG/STEM,FISH 36A5366X062	In Stock
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Ring		RING,FISH 26A5285X012	In Stock
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Ring		RING,FISH 26A5299X052	In Stock
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Ring		RING,FISH 10A5411X022	In Stock
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Pin		PIN,FISH 1V334035072	In Stock

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Gasket		GASKET,FISH 18A2810X012	In Stock
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Gasket		GASKET,FISH 26A5314X012	In Stock
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Ring		RING,FISH 10A5410X012	In Stock
Units 1 & 2 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve - Unit 1	Packing		PACKING,FISH 1R290601012	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Element Assembly (Volute)	Rebuildable Item if this is not in stock, it is out for rebuild.	ELEMENT ASSY,VOLUTE/ROTATIN G	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Bushing		BUSHING,BJ 216507LG	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Shaft Driven Oil Pump		PUMP,BJ DWG C1F-238	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Ring		RING,BJ 612987-EH	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Ring		RING,BJ 634599-BG	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Shoe		SHOE ASSY,BJ 631163-KD	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps - Unit 1 E & W	Cover		COVER,BJ 308952-SA	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	3000HP Motor, 4160Vac (two styles of motor for Stage 1, one each stocked off-site)	Motor stored off site via service contract	SCIM, sin# 1026366788, frame MGP500B, 3000HP, 4160Vac, 60Hz	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Gasket		GASKET,FISH 12B7100X082	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Seal	Repair Parts stocked Ref CN12054568	SEAL,FISH 10A4215X012	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Ring	Repair Parts stocked Ref CN12054568	RING,FISH 10A4217X012	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Ring	Repair Parts stocked Ref CN12054568	RING,FISH 10A4219X012	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Ring		RING,FISH 22B9344X012	In Stock
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Main Feedwater Low Load Control Valve	Plug/Stem		PLUG/STEM,FISH 38A0014X062	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #1 - All HP Heaters	Level Transmitter		TRANSMITTER, DP 0-120" H2O	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #2 - HP Heater # 4 & 6	Level Transmitter		TRANSMITTER, DP 0-120" H2O	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #2 -HP Heater # 5	Level Transmitter		TRANSMITTER, DP 0-120" H2O	In Stock
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit 1 - All HP Heaters	Aquarian Alarm Modules		MODULE,AQUARIAN	In Stock



Critical Spares - Thermal Generation

Asset				Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit #2 - Heater # 4 & 6	Aquarian Alarm Modules		MODULE,AQUARIAN	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit # 2 -HP Heater # 5	Aquarian Alarm Modules		MODULE,AQUARIAN	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit 1 & 2 - All HP Heaters	Conductivity Probe	Hi-Level Switch	PROBE,CONDUCTIVITY	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit # 1 & 2 - All HP Heaters	Relay		RELAY,PLUG-IN 12 PIN AC	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	Unit 1 & 2	Solenoid		SOLENOID,ASCO 8300 125 VDC	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Suction Valve Limit Switch	Oil Tight Limit Switch		SWITCH,LIMIT AB 802T-B	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Suction Valve	Packing		PACKING,GRAFOIL 1IDX1-1/2OD	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Gasket		GASKET,HOP 30037592	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Spindle		SPINDLE,HOP 44574-011	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Nut		NUT,HOP 35224-508	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Stop		STOP,HOP 8 VALVE 24930W	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Belt		BELT ASSY,HOP 44511-001	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 4	8" - 150# Gasket Kit		GASKET,S&K 74S0397V0010	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 5	8" - 300# Gasket Kit		GASKET,S&K 74S0397V0010	In Stock	
Units 1 & 2 H.P. Feedwater System	H.P. Heaters	NRV Valves - Heater # 6	8" - 600# Gasket Kit		GASKET,S&K 74S0397V0010	In Stock	
Units 1 & 2 H.P. Feedwater System	Steam Drum	Level Control Transmitters	Level Transmitter		TRANSMITTER,PRESS 5-800	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Suction Line Safety Valve	1/2" x 1" Valve		VALVE,RELIEF 1/2"110# SE	In Stock	
Units 1 & 2 H.P. Feedwater System	Boiler Feed	Boiler Feed Recirculation Valve to DA	4" Valve		VALVE,GATE 4 CS BW 300#	In Stock	
Combustion Air & Gas Instruments	Burner Management	Positioner	2.5" x 5 "Pneumatic PowerPositioner (Hagan) In Stock		VALVE ASSY,373218-001	In Stock	
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Coupling		COUPLING,METASTREA M	In Stock	
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Bearing	C. Thangasamy to contact Flowserve for bearing spec.	BEARING,JOURNAL MP 215878E	Non-Stock	
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Impeller		IMPELLER,MAT PLA 27881-P	In Stock	
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Impeller		IMPELLER,MAT PLA 27882-P	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Impeller		O-RING,M&P 775C	In Stock
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Impeller		O-RING,MAT PLA 775D	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Cable			CABLE,BATTERY 1/0	In Stock
Turbine Generator System Stage 1	Governor	Governor	Mark 5 System - speed probes		PROBE,SPEED PICKUP	In Stock
Turbine Generator System Stage 1	Turbine Lube Oil System	Pressure Switch 1	Switch		SWITCH,PRESS 0-150 PSI	In Stock
Turbine Generator System Stage 1	Steam Seal Regulator	Dump Control Valve - Body	Positioner		POSITIONER,FISH DVC6200	In Stock
Condenser Air Extraction System	Mechanical Vacuum Pumps	Motor	Motor		MOTOR,ELECT 50HP 575V	In Stock
Generator	Stator	PT Cubicle	Potential Transformer (PT)		TRANSFORMER,GE 765X	In Stock
Generator	Stator	Stand Off Insulators	Stand Off Insulator		BUSHING,HIGH VOLTAGE GE	In Stock
Turbine Generator System Stage 1	Governor	Governor	Truck V-Fast Cables		CABLE SET,FLUID POWER	In Stock
Generator	Stator	Stator and Brush Rigging Assembly	Brush		BRUSH,GENERATOR U1 & U2	In Stock
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	Inboard Bearing Liner		LINER,BEARING 6"	In Stock
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	Outboard Bearing Liner		SLEEVE,BEARING 6"	On Order
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	Bearing Set	U1 West (Dodge)	BEARING SET,SLEEVE 6"	In Stock
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	200A Power Cell		POWER CELL,SIEMENS 200A	In Stock
Units 1 & 2 Air & Flue Gas	F.D. Fans	Unit 1& 2 - Fans	1500HP Motor, 4160Vac	Motor stored off site via service contract	SCIM, sin# 1026842643, frame MGP500C, 1500HP, 4160Vac, 60Hz	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Panel	400A DC Breaker		BREAKER,DC KD2400F 400A	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Panel	40A DC Breaker		BREAKER,DC HFD2040 40A	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-116	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-114- 1	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-111- 1	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-107- 2	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-107- 2	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-107- 2	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-107- 2	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-107- 2A	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-112- 2	In Stock

Critical Spares - Thermal Generation

Asset				Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Powerhouse and Switchyard Single Line	258V DC System	Charger	Rectifier		RECTIFIER,CIGENT 323-230	In Stock	
Powerhouse and Switchyard Single Line	258V DC System	Charger Cigent	Charger	Individual replacement components stocked	CHARGER,BATTERY 250VDC	Non-Stock	
Circulating Water and Screen Wash System	CW Discharge Valves	Valve	36" Butterfly Valve		VALVE,BUTTERFLY 36"	In Stock	
Circulating Water and Screen Wash System	CW Discharge Valves	Actuator	CW Butterfly Valve Actuator		ACTUATOR ASSY,ROTORK	In Stock	
Circulating Water and Screen Wash System	CW Pumps	Motor	Coils		COILS,STAGE 2 MOTOR	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Network Interface Modules		MODULE,NETWORK INTERFACE	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	Master Fuel Trip Relays		RELAY,SD 8501XUDO	In Stock	
Combustion Air & Gas Instruments	Burner Management	Burner Automation	DCS Control Processor		MODULE,PROCESSOR FOXBORO	In Stock	
Combustion Air & Gas Instruments	Burner Management	Elevation Oil Flow Transmitter	Meter & Transmitter		FLOWMETER,PROMASS 83F40	In Stock	
Combustion Air & Gas Instruments	Burner Management	Elevation Air Dampers	Positioner		POSITIONER,FISH DVC6200	In Stock	
Generator	Stator	Stator and Brush Rigging Assembly	Brush		BRUSH,GENERATOR U3	In Stock	
Generator	Synchronous Condensor	Thrust Bearing	Bearing Pad		PAD,BEARING U3 SYNC COND	In Stock	
Generator	Synchronous Condensor	Thrust Bearing	Seal Ring		RING,SEAL U3 SYNC COND	In Stock	
Generator	Synchronous Condensor	Thrust Bearing	Thrust bearing		BEARING,THRUST U3 SYNC COND	In Stock	
Generator	Synchronous Condensor	Thrust Bearing	Thrust bearing		BEARING,THRUST U3 SYNC COND	In Stock	
Generator	Synchronous Condensor	Thrust Bearing	Seal Ring		RING,SEAL U3 SYNC COND	In Stock	
Generator	Synchronous Condensor	Thrust Bearing	Thermocouple		THERMOCOUPLE,U3 SYNC COND	In Stock	
Generator	Seal Oil System	Seals	Bellows		BELLOWS,HITACHI	In Stock	
Generator	Seal Oil System	Seals	Gaskets		GASKET,HITACHI	In Stock	
Generator	Seal Oil System	Seals	Gaskets		GASKET,HITACHI	In Stock	
Generator	Seal Oil System	Seals	Gaskets		GASKET,HITACHI	In Stock	
Generator	Exciter	Exciter Control System	Converter		CONVERTER,ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	ECT Panel		ECT PANEL,ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Controller		CONTROLLER,ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Computer		COMPUTER,ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Firing Board		BOARD,ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Message Module		MODULE,ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Input Coupling		INPUT COUPLING UNIT,ABB	In Stock	
Generator	Exciter	Exciter Control System	Power Supply		POWER SUPPLY,ABB	In Stock	

Critical Spares - Thermal Generation

Asset				Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Generator	Exciter	Exciter Control System	Crowbar		CROWBAR,ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Murr		MURR,ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	Resistor		RESISTOR,ABB EXCITER	In Stock	
Generator	Exciter	Exciter Control System	I/O Board		BOARD,ABB COMBINED I/O	In Stock	
Generator	Exciter	Exciter Control System	Field Breaker		BREAKER,FIELD ABB E2/E	In Stock	
Generator	Stator	Stand Off Insulators	Insulator Bushing		BUSHING,HIGH VOLTAGE HIT	In Stock	
Generator	Stator	PT Cubicle	Potential Transformer (PT)		TRANSFORMER,EATON VIZZ	In Stock	
Generator	Stator	PT Cubicle	Fuse		FUSE,GE E10-1-C588L405G1	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Trip Valve	1-1/2" Valve		VALVE KIT,JAMES RKB5MT	In Stock	
Ignitor Light Oil and Air Supply	Light Oil	Igniter Control Box	Light Oil / Air Supply Solenoid Valve		SOLENOID,ASCO 8342C1	In Stock	
Ignitor Light Oil and Air Supply		Igniter Control Box	Purge Solenoid Valve		SOLENOID,ASCO 8262G232	In Stock	
Ignitor Light Oil and Air Supply		Igniter Control Box	Pneumatic Actuator		ACTUATOR,PNEU R16C	In Stock	
Ignitor Light Oil and Air Supply		Igniter Control Box	Ignition Transformer		XFMR,IGNITION 120V 60C	In Stock	
Ignitor Light Oil and Air Supply		Igniter Control Box	Relay		BOX,IGNITOR C/W CABLES N-6	In Stock	
Ignitor Light Oil and Air Supply		Igniter Control Box	Sunspot - Scanner		SCANNER,FOSSIL 9100-1000	On Order	
Ignitor Light Oil and Air Supply		Igniter Control Box	Snap Action Switch		MICROSWITCH,16CX12-D01	In Stock	
Ignitor Light Oil and Air Supply		Igniter Control Box	1/4" Light Oil Air Ball Valves		VALVE,BALL 1/4" U3 IGNITOR	In Stock	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Level Transmitter LP Heater #1		TRANSMITTER,LEVEL	In Stock	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Aquarian Alarm Modules		MODULE,AQUARIAN	In Stock	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Solenoid		SOLENOID,ASCO 8300 125 VDC	In Stock	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Relay		RELAY,OMRON MM4XP-DC125	In Stock	
L.P. Feedwater System	L.P. Heater Controls (Water Induction Protection)		Conductivity Probe		PROBE,CONDUCTIVITY	In Stock	
L.P. Feedwater System	Deaerator System	Deaerator	Gauge Glasses		GAUGE,GLASS 3/4X48	In Stock	
L.P. Feedwater System	Deaerator System	Level Control	Level Switch		SWITCH ASSY,MAG 89-7401-052	In Stock	
L.P. Feedwater System	Deaerator System	Level Control	Solenoid		SOLENOID,ASCO 8320G184M0	In Stock	
L.P. Feedwater System	Deaerator System	Level Control	Level Transmitter		TRANSMITTER, DP 0-120" H2O	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Repair Kit		VALVE KIT,BALL 8"	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Repair Kit		ACTUATOR KIT,WORCH C-38	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Valve		VALVE,FISH 8560-1052-36105	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Disc		DISC,FISH 75B1036X102	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Pin		PIN,FISH 75B1122X052	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Pin		PIN,FISH G13725K0022	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Ring		RING,FISH 75B0311X032	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Shaft		SHAFT,FISH 75B0014X012	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Spring		SPRING,FISH 75B0012X012	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Packing		PACKING,FISH 12A8951X022	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Control Valves	Bearing		BEARING,FISH 75B1076X012	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves - #2 LP Heater	20" Dia		GASKET,COVER HIT	In Stock
L.P. Feedwater System	L.P. Heaters	NRV Valves - #1 LP Heater	24" Dia		GASKET,COVER HIT	In Stock
L.P. Feedwater System	Deaerator System	NRV Valves (2)	14" Dia on DA		GASKET COVER HIT	In Stock
L.P. Feedwater System	Deaerator System	Safety Valves	Disc		DISC,VALVE SAFETY RELIEF	In Stock
L.P. Feedwater System	Polisher Bypass Valve		Parts to Repair		VALVE,FISH 8560-1052-36105	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Valves	Valve Kit		VALVE KIT,BALL 3	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Valves	Actuator Kit		ACTUATOR KIT,WORCH D-38	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Valves	Valve Kit		VALVE KIT,BALL 2	In Stock
L.P. Feedwater System	Condensate Polishers (Units 1, 2, 3)	Valves	Actuator Kit		ACTUATOR KIT,WORCH C-38	In Stock
Main Steam & Reheat Steam; Turbine Drains	Vacuum Unloading Device		Bellows		BELLOW ASSY,HIT L1000-1	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	400A DC Breaker		BREAKER,DC KD2400F 400A	In Stock
Powerhouse and Switchyard Single Line	258V DC System		40A DC Breaker		BREAKER,DC HFD2040 40A	In Stock
Turbine Generator System Stage 2	Governor	Governor	Piston		PISTON RING,HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Oil Seal		OIL SEAL,HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	O-Ring		O-RING,HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	O-Ring		O-RING,HITACHI	In Stock
Turbine Generator System Stage 2	Governor	Governor	Bushing		BUSHING,HITACHI	In Stock

Critical Spares - Thermal Generation

Asset				Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Turbine Generator System Stage 2	Governor	Governor	Packing		PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Bushing		BUSHING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	O-Ring		O-RING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING,HITACHI LOAD LIMIT	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING,HITACHI LOAD LIMIT	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Piston		PISTON RING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Packing		PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Sleeve		SLEEVE,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Trunnion		TRUNNION,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING,BALL HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Pin		SPLIT PIN,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Bearing		BEARING,BALL HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Oil Seal		OIL SEAL,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Governor	Packing		PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Piston		PISTON RING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Seat Packing		SEAT PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Washer		WASHER,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Washer		WASHER,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Washer		WASHER,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Seat Packing		SEAT PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Washer		WASHER,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Seat Packing		SEAT PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Seat Packing		SEAT PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Washer		WASHER,HITACHI	In Stock	
Turbine Generator System Stage 2	Governor	Electrical Trip Test Device	Seat Packing		SEAT PACKING,HITACHI	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump	Bearing		BEARING,PLANE HIT ITEM 35	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump	Bearing		BEARING,PLANE HIT ITEM 36	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump	Auto Start Pressure Switch		SWITCH,PRESS 10-300 TYPE ACW2	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Seal Ring		SEALRING,10P-067-551-17	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Seal Ring		SEALRING,10P-067-551-18	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	O-Ring		O-RING,HITACHI	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Ring		RING,HIT 10P 067-551-13	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Ring		RING,HIT 10P 067-551-17	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Ring		RING,HIT 10P 067-551-18	In Stock	
Turbine Generator System Stage 2	Turbine Lube Oil System	Shaft Driven Oil Pump	Brush		BRUSH,HIT 10P 067-551-38	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Turbine Generator System Stage 2	Turbine Lube Oil System	Auxiliary Oil Pump	Bearing		BEARING, PLANE HIT ITEM 35	In Stock
Turbine Generator System Stage 2	Turbine Lube Oil System	Auxiliary Oil Pump	Bearing		BEARING, PLANE HIT ITEM 36	In Stock
Turbine Generator System Stage 2	Turbine Lube Oil System	Auxiliary Oil Pump	Motor		MOTOR, AUX OIL YELLOW	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Seat		SEAT, 10P-061-226-123	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Pin		PIN, 10P-061-226-207	On Order
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Lockring		LOCKRING, 10P-061-226-208	On Order
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Lockring		LOCKRING, 10P-061-226-209	On Order
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Pin		PIN, HIT 10P-061-226/16	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Pin		PIN, HIT 10P-061-226/98	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Bushing		BUSHING, HIT T-9201	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Pin		PIN, HIT 10P-061-228-125	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Crosshead		CROSSHEAD, HIT 10P0612283	On Order
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Pin		PIN, HIT 10P-061-228/98	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Lower	Pin		PIN, HIT 10P-061-228/16	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Gasket		GASKET, STL #16	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Gasket		GASKET, HIT 10P-038-197-16	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Gasket		GASKET, HIT 10P-038-197-71	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Bushing		BUSHING, 10P-038-197/15	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Seal Ring		SEAL RING, 10P-038-197/14	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Stop Valves	Bushing		BUSHING, HIT 10P-038-197/18	In Stock
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Bushing		BUSHING, HIT 10P0611582	In Stock
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Bushing		BUSHING, HIT 10P0611586	In Stock
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Bushing		BUSHING, HIT 10P06115814	In Stock
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Rivet		RIVET, HIT 10P-061-158-63	On Order
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Stem		STEM, HIT 10P061158/7	In Stock
Turbine Generator System Stage 2	Reheat Steam Chest Assembly	Reheat/ICV Valves	Pin		PIN, HIT 10P06115872	In Stock
Turbine Generator System Stage 2	Steam Seal Regulator	Pressure Transmitter - Unit 3	Pressure Transmitter - Unit 3		TRANSMITTER, PRESS 0-200	In Stock

Critical Spares - Thermal Generation

Asset				Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Turbine Generator System Stage 2	Steam Seal Regulator	2" Valve	Bushing		BUSHING, FISH 1E845714012	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Main Steam Control Valve - Actuator	Diaphragm		DIAPHRAGM, FISH 2E859602202	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Main Steam Control Valve - Actuator	Actuator repair kit		ACTUATOR KIT, FISH R667X000502	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Main Steam Control Valve - Body	Packing Kit		PACKING KIT, FISH RPACKX0011	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Main Steam Control Valve - Positioner	Positioner		POSITIONER, FISH DVC6200	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator	Auxiliary Steam Control Valve - actuator	Aux Steam Control Valve - Actuator - Unit 3		ACTUATOR KIT, FISH R470X000032	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Aux Steam Control Valve - Body - Unit 3		BODY, VALVE FISH 3N192029022	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Dump Control Valve - Actuator - Repair Kit - Unit 3		ACTUATOR KIT, FISHER R667	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Ring		RING, FISH 17A3990X022	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Ring		RING, FISH 1U508039102	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Pin		PIN, FISH 1V326035072	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Cage		CAGE, FISH 2U505939102	In Stock	
Turbine Generator System Stage 2	Steam Seal Regulator		Plug		PLUG, FISH 27A3953X012	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Series 8500 size 95 w/ 95" @ 100% width wheel	Thrust Plate		THRUST PLATE KIT, DODGE 132221	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Drive Motor	Formed Coils		COIL, WINDING U3 FD FAN	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	Liner		LINER ASSY, DODGE 132423	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	Collar		COLLAR, DODGE 132154	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	Opposite side bearing		LINER ASSY, DODGE 132951	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	2 - Temperature probes installed in bearings		THERMOCOUPLE, TYPE T	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Fan Assembly	Falk Steelflex coupling		COUPLING, STEELFLEX GRID	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	2 - Independent bearing pedestals	Gasket		GASKET, DODGE 132170	In Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Outlet damper	Damper	To be ordered & stocked as required	DAMPER, STOCKBRIDGE 0.866"	Non-Stock	
Unit 3 Air & Flue Gas	F.D. Fans	Outlet damper	Damper	To be ordered & stocked as required	DAMPER, STOCKBRIDGE 1.004"	Non-Stock	
Unit 3 Air & Flue Gas	F.D. Fans	variable inlet vanes	Actuator Repair Kit		DRIVE KIT, BAILEY 532694C1	In Stock	



Critical Spares - Thermal Generation

Asset				Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Unit 3 Air & Flue Gas	F.D. Fans	variable inlet vanes	Actuator repair kit		DRIVE KIT,BAILEY 256111A0	In Stock	
Unit 3 Air & Flue Gas	Rotary Air Heaters	Gearbox	Gearbox		GEARBOX,AIR HEATER U3	In Stock	
Unit 3 Air & Flue Gas	Rotary Air Heaters	Pneumatic Drive System	Air Drive Motor		AIR MOTOR,ING RAND	In Stock	
Unit 3 Air & Flue Gas	Rotary Air Heaters	Baskets	Basket Set	To be ordered & stocked as required	BASKET SET,AIR HEATER 22-1/2"	Non-Stock	
Unit 3 Air & Flue Gas	Rotary Air Heaters	Baskets	Basket Set	To be ordered & stocked as required	BASKET SET,HOT END 22- 1/2	Non-Stock	
Unit 3 Air & Flue Gas	O2 Analyzers		Probe - In Stock		PROBE,OXYGEN ANALYZER	In Stock	
Unit 3 Air & Flue Gas	O2 Analyzers		Analyser		ANALYZER,ROSE 3000 OXY	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Gasket		GASKET SET,FISH RGASKETX362	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Packing		PACKING KIT,FISH RPACKX0002	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Actuator		ACTUATOR KIT,FISH R667X000502	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Regulator		REGULATOR KIT,FISH WR67AFRX011	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Bushing		BUSHING,FISH 1E845714012	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Diaphragm		DIAPHRAGM,FISH 2E859802202	In Stock	
Unit 3 Fuel Oil System		Main Fuel Oil Trip Valve	Cage		CAGE,FISH 2U236033272	In Stock	
Unit 3 Fuel Oil System		Combustion Control Valves	Ring		RING,FISH 1U217305092	In Stock	
Unit 3 Fuel Oil System		Combustion Control Valves	Seat		SEAT,FISH 1U222046172	In Stock	
Unit 3 Fuel Oil System		Combustion Control Valves	Plug/Stem		PLUG/STEM,FISH 1V6571X0042	In Stock	
Unit 3 Fuel Oil System		Combustion Control Valves	Cage		CAGE,FISH 2U215333272	In Stock	
Unit 3 Fuel Oil System		Combustion Control Valves	Gasket		GASKET SET,FISH RGASKETX242	In Stock	
Unit 3 Fuel Oil System		Combustion Control Valves	Packing		PACKING KIT,FISH RPACKX00012	In Stock	
Unit 3 Fuel Oil System		Combustion Control Valves	Bushing		BUSHING,FISH 1E682814012	In Stock	
Unit 3 Fuel Oil System		Combustion Control Valves	Diaphragm		DIAPHRAGM,FISH 2E669902202	In Stock	
Unit 3 Fuel Oil System		Atomizing Steam Valve	Cage		CAGE,FISH 2U223733272	In Stock	
Unit 3 Fuel Oil System		Atomizing Steam Valve	Ring		RING,FISH 1U222646172	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Unit 3 Fuel Oil System		Atomizing Steam Valve	Plug/Stem		PLUG ASSY,FISH 1V6575X0052	In Stock
Unit 3 Fuel Oil System		Atomizing Steam Valve	Packing		PACKING KIT,FISH RPACKX0002	In Stock
Unit 3 Fuel Oil System		Atomizing Steam Valve	Gasket		GASKET SET,FISH RGASKETX182	In Stock
Unit 3 Fuel Oil System		Atomizing Steam Valve	Diaphragm		DIAPHRAGM,FISH 2E670002202	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Packing		PACKING KIT,FISH RPACKX0002	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Bushing		BUSHING,FISH 1E682814012	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Retainer		RETAINER,FISH 1V710935072	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Disc		DISC,FISH 1V711006242	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Seat		SEAT,FISH 1V711135072	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Diaphragm		DIAPHRAGM,FISH 2E669902202	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Trip Valves (3)	Cage		CAGE,FISH 2U227633272	In Stock
Unit 3 Fuel Oil System		Header Pressure Control Valve	Bushing		BUSHING,FISH 1E682814012	In Stock
Unit 3 Fuel Oil System		Header Pressure Control Valve	Diaphragm		DIAPHRAGM,FISH 2E669902202	In Stock
Unit 3 Fuel Oil System		Fuel Oil Pumps	Pump		PUMP,MAIN FUEL OIL KRAL	In Stock
Unit 3 Fuel Oil System		Main Fuel Oil Recirculation Valve	1" Welded Flange Valve w/ Actuator		VALVE ASSY,JAMES 1052 1"	In Stock
Unit 3 Fuel Oil System		Level Fuel Oil Recirculation Valves	3/4" Welded Valve w/ Actuator		VALVE ASSY,JAMES 1052 3/4"	In Stock
Unit 3 Fuel Oil System	Burners	Oil Valve	1/2"Ball Valve		VALVE KIT,JAMES RKB5MT	In Stock
Unit 3 Fuel Oil System	Burners	Steam Valve	Gasket		GASKET SET,FISH RGASKETX312	In Stock
Unit 3 Fuel Oil System	Burners	Steam Valve	Packing		PACKING KIT,FISH RPACKX00012	In Stock
Unit 3 Fuel Oil System	Burners	Steam Valve	Plug/Stem		PLUG/STEM,FISH 1U2161X0082	In Stock
Unit 3 Fuel Oil System	Burners	Steam Valve	Ring		RING,FISH 1U222546172	In Stock
Unit 3 Fuel Oil System	Burners	Steam Valve	Cage		CAGE,FISH 2U215033272	In Stock
Unit 3 Fuel Oil System	Burners	Scavenge Valve	Gasket		GASKET SET,FISH RGASKETX312	In Stock
Unit 3 Fuel Oil System	Burners	Scavenge Valve	Packing		PACKING KIT,FISH RPACKX00012	In Stock

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Unit 3 Fuel Oil System	Burners	Scavenge Valve	Plug/Stem		PLUG/STEM,FISH 1U2161X0082	In Stock
Unit 3 Fuel Oil System	Burners	Scavenge Valve	Ring		RING,FISH 1U222546172	In Stock
Unit 3 Fuel Oil System	Burners	Scavenge Valve	Cage		CAGE,FISH 2U215033272	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Rotating Assembly		CASE ASSY,BWL (INNER)	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Shoe Assembly		SHOE ASSY,KI-00166-A- 3740	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Throttle bushing  (2 req'd)		BUSHING,BWL 3106181	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Bearing		BEARING,HIT 9-60-1	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Bearing		BEARING,HIT 9-60-2	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Balance bushing		BUSHING,BWL 3106181	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Thrust bearing		BEARING ASSY,THRUST JHJ-5	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	Gaskets		GASKET,BWL T- 101204JG	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Boiler Feed Pumps	2350HP Motor, 4160Vac	Motor stored off site via service contract	SCIM, sin# 1026842642, frame MGP450D, 2350HP, 4160Vac, 60Hz	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	6" - EHT valve 1500lb - Welded		DIAPHRAGM,FISH 2R6376X00	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 10A5411X022 - Seal Ring		RING,FISH 10A5411X022	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 13A5599X052 - O-Ring		O-RING,FISH 13A5599X052	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 26A52990X52 - Seat Ring Retainer		RING,FISH 26A5299X052	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 27A2798X042 - Seat Ring, O-Ring		RING,FISH 27A2798X042	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 42B3570X012 - Cage, Eq%		CAGE,FISH 42B3570X012	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 36A5366X062 - Plug/Stem Bal		PLUG/STEM,FISH 36A5366X062	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	2 - 26A5314X012 - Gasket		GASKET,FISH 26A5314X012	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1J872906332 - Upper Wiper		WIPER,FISH 1J872906332	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1J873435072 - Packing Box Ring		RING,FISH 1J873435072	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1R290601012 - Packing Set		PACKING,FISH 1R290601012	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 1H7441X0022 - Bushing Seal		SEAL,FISH 1H7441X0022	In Stock

Critical Spares - Thermal Generation

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - 2R6376X0082 - Diaphragm		DIAPHRAGM,FISH 2R6376X00	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	Main Feed Water Control Valve	1 - R667X000802 - Repair Kit		ACTUATOR KIT,FISHER R667	In Stock
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)	All HP Heaters	Conductivity Probe		PROBE,CONDUCTIVITY	In Stock
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)		Aquarian Alarm Module		PROBE,AQUARIAN	In Stock
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)		Level Transmitter		TRANSMITTER, DP 0-120" H2O	In Stock
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)		Relay		RELAY,OMRON MM4XP-DC125	In Stock
Unit 3 H.P. Feedwater System	H.P. Heater Controls (Water Induction Protection)		Solenoid		SOLENOID,ASCO 8300 125 VDC	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Bushing		BUSHING,DEW 0800109	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Clip		CLIP,DEW 0540097	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Ring		RING,DEW 0760093	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Ring		RING,DEW 668215DEW	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Screw		SCREW,DEW 0440024	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Spacer		SPACER,DEW 0660065	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Spring		SPRING,DEW 6580312 (3/SET)	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Stem		STEM,DEW 0040851	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Stud		STUD,DEW 0282351	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Stud		STUD,DEW 0280514	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Packing		PACKING,DEW 6442946	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	Motorized Bypass Valves	Nut		NUT,DEW P71ER250	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	NRV Valves - #6 HP Heater	6" Dia		GASKET,COVER HIT	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	NRV Valves - #5 HP Heater	8" Dia		GASKET,COVER HIT	In Stock
Unit 3 H.P. Feedwater System	H.P. Heaters	NRV Valves - #4 HP Heater	10" Dia		GASKET,COVER HIT	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Stud		STUD,DEW 0280443	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Stud		STUD,DEW 0280513	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Disc		DISC,DEW 051095	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Ring		RING,DEW 0760072	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Ring		RING,DEW 2004920	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Stud		STUD,DEW 0440024	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Nut		NUT,DEW #2003863	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Nut		NUT,DEW 2000006	In Stock
Unit 3 H.P. Feedwater System	Boiler Feed	Motorized Discharge Valves	Nut		NUT,KEYSTONE 903-735	In Stock
Unit 3 H.P. Feedwater System	Steam Drum	Level Control Transmitters	Transmitter		TRANSMITTER,PRESS 5-800	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Cage		CAGE ASSY,FISH 22A3525X022	In Stock
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Packing		PACKING,FISH 1R290601012	In Stock

Critical Spares - Thermal Generation

Asset				Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Plug/Stem		PLUG/STEM,FISH 22A3527X052	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Gasket		GASKET,FISH 10A4155X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Gasket		GASKET,FISH 10A4154X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Ring		RING,FISH 10A4210X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Ring		RING,FISH 12A3529X012	In Stock	
Unit 3 H.P. Feedwater System	Feed Water Flow Controls	LL Control Valve	Ring		RING,FISH 11A3306X012	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	Suction Line Safety Valve	1/2" Dia		VALVE,RELIEF 1/2"110# SE	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Body		BODY,VALVE MASON 37-79264	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Ring		RING KIT,MASON 01148734399	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Gasket		GASKET,MASON 356154-152-825	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Seal		SEAL,MASON 354810-034-779	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Retainer		RETAINER,MASON 358754-000-163	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Seal		SEAL,MASON 358753-000-210	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Pin		PIN,MASON 971342-023-250	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Stem		STEM,MASON 358738-113-210	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Plug		PLUG,MASON 011509398-206-0000	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Seat		SEAT,MASON 358748-000-596	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Liner		LINER,MASON 011509395-213-0000	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Diaphragm		DIAPHRAGM,MASON 010275-040-77	In Stock	
Unit 3 H.P. Feedwater System	Boiler Feed	DA Recirculation Block Valve	Stem		STEM,MASON 770354-027-152	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Feeder to MCC E1 - breaker C4	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Feeder to MCC C12 - breaker C7	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Feeder to Power Centre - breaker C14	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Feeder to Power Centre - breaker C15	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C3	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C5	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C6	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C8	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C9	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C10	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C11	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C12	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	breaker C13	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Circuit Breaker to Bus - breaker C16	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Circuit Breaker to Bus - breaker C17	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Feeder to MCC - breaker C18	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Circuit Breaker to Bus - breaker C19	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)			SSB-3 Relay	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB12 (SSB1)			Feeder to transformer ATC - breaker SSB-3	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A	BREAKER,EATON 4160V 2000A	In Stock	
Station Board SB12 (SSB1)			SSB-4 Relay	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB12 (SSB1)			SSB-4 Relay	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB12 (SSB1)			Feeder to Station Board - breaker SSB-2	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A	BREAKER,EATON 4160V 2000A	In Stock	
Station Board SB12 (SSB1)			Feeder to Station Board - breaker SSB-4	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A	BREAKER,EATON 4160V 2000A	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Boiler Area MCC BAB3 - breaker SDB-34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	GPB34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	AC34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	CWP34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	LDP34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	WTP34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Diesel Bus DB34 - Breaker DB34	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Diesel Bus - D2	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Diesel Bus - DBT	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Station Board SB34 (ST34)			breaker ST34 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB34 (ST34)			breaker ST34 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB34 (ST34)			breaker TB12 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB34 (ST34)			breaker TB12 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB34 (ST34)			breaker SAT34 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB34 (ST34)			breaker SAT34 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB34 (ST34)			TB3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB34 (ST34)			TB3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB34 (ST34)			Feeder to Station Board - breaker ST34 & relays	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A	BREAKER,EATON 4160V 2000A	In Stock	
Station Board SB34 (ST34)			Feeder to Station Board - breaker TB12 & relays	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A	BREAKER,EATON 4160V 2000A	In Stock	
Station Board SB34 (ST34)			Circuit Breaker TB3	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A	BREAKER,EATON 4160V 2000A	In Stock	
Station Board SB34 (ST34)			breaker PSM3 & relay	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Station Board SB34 (ST34)			breaker TB12 relays	Shares spare with MAVS devices - replaced by ABB SYN5201-0271	SYNCHROTRACT,SYN5201	In Stock	
Station Board SB34 (ST34)			breaker TB12 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
Station Board SB34 (ST34)			TB3 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
Station Board SB34 (ST34)			TB3 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	



Critical Spares - Thermal Generation

Asset				Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)			Circuit Breaker UB1-1	Shares spare with Feeder to Station Board - breaker SSB-1.	BREAKER,EATON 4160V 2000A	In Stock	
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)			UB1-1 Relay	Shares spare with MAVS devices - replaced by ABB SYN5201-0271	SYNCHROTRACT,SYN5201	In Stock	
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)			UB1-1 Relay	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
UB1-1 (Tie Breaker Between Station Board SB12 & Unit Board UB1)			UB1-1 Relay	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)			Circuit Breaker UB2-12	Shares spare with Feeder to Station Board - breaker SSB-1.	BREAKER,EATON 4160V 2000A	In Stock	
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)			UB2-12 Relay	Shares spare with MAVS devices - replaced by ABB SYN5201-0271	SYNCHROTRACT,SYN5201	In Stock	
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)			UB2-12 Relay	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)			UB2-12 Relay	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
UB2-12 (Tie Breaker Between Unit Board UB2 & Station Board SB12)			UB2-12 Relay	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Feeder to Power Centre A - A1	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Feeder to Power Centre A - A9	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)	Feeder to transformer LT-A - breaker A3	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)	Feeder to MCC A1 - breaker A4	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)	A5	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)	A6	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1)	A7	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB1 (UB1-2)			UB1-4 relay	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Unit Board UB1 (UB1-2)			UB1-9 relay	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock	
Unit Board UB1 (UB1-2)			UB1-11 relay	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock	
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMA- 2	In Stock	
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMA- 1	In Stock	
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMS- 1	In Stock	
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMH- 2	In Stock	
Unit Board UB1 (UB1-2)			UB1-3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB1 (UB1-2)			UB1-3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB1 (UB1-2)			Feeder to Unit Board UB1 - breaker UB1-2	Shares spare with Feeder to Station Board - breaker SSB-1, 5HK-VR-250-2000A	BREAKER,EATON 4160V 2000A	In Stock	
Unit Board UB1 (UB1-2)			Feeder to transformer ATA - breaker UB1-3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB1 (UB1-2)			breaker UB1-4	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB1 (UB1-2)			breaker UB1-5	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB1 (UB1-2)			breaker UB1-6	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB1 (UB1-2)			breaker UB1-7	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB1 (UB1-2)			breaker UB1-8	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB1 (UB1-2)			breaker UB1-9	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB1 (UB1-2)			breaker UB1-10	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	

Critical Spares - Thermal Generation

Asset				Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Unit Board UB1 (UB1-2)			breaker UB1-11	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB1 (UB1-2)			UB1-2 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Feeder to Power Centre B - breaker B1	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Feeder to transformer LT-B - breaker B4	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Feeder to MCC B1 - breaker B5	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	B2	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	B6	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	B7	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	B8	Shares spare re-build kit/critical spares kit with other CGE AK breakers.	BREAKER,EATON 600V	In Stock	
Unit Board UB2 (UB2-1)			UB2-3 relay	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock	
Unit Board UB2 (UB2-1)			UB2-4 relay	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock	
Unit Board UB2 (UB2-1)			UB2-9 relay	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock	
Unit Board UB2 (UB2-1)			UB2-10 relay	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock	
Unit Board UB2 (UB2-1)			UB2-1 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMA-2	In Stock	
Unit Board UB2 (UB2-1)			UB2-1 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMA-1	In Stock	
Unit Board UB2 (UB2-1)			UB2-1 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMS-1	In Stock	
Unit Board UB2 (UB2-1)			UB2-1 relays	Shares spare with CGE HFA devices	RELAY,AUXILIARY RXMH-2	In Stock	
Unit Board UB2 (UB2-1)			UB2-2 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Unit Board UB2 (UB2-1)			UB2-2 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB2 (UB2-1)			Feeder to Unit Board - breaker UB2-1 & relays	Shares spare with Feeder to Station Board - breaker SSB-1.	BREAKER,EATON 4160V 2000A	In Stock	
Unit Board UB2 (UB2-1)			Feeder to Transformer ATB, breaker UB2-2	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)			UB2-3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)			UB2-4	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)			UB2-5	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)			UB2-6	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)			UB2-7	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)			UB2-8	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)			UB2-9	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)			UB2-10	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB2 (UB2-1)			UB2-1 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Relays	Spares spare with CGE IAC51 and ICA53 devices	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Relays	Spares spare with CGE IAC51 and ICA53 devices	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Feeder to Aux Board - breaker UAB-3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Feeder to transformer LDP-3 - breaker LDP-3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Feeder to MCC BAB3 - breaker BAB-3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	AOP3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	TAB3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	AC12	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Tie Breaker to Station Board - breaker ATB3	Shares spare re-build kit/critical spares kit with other FP breakers.	BREAKER,SCHNEIDER 600V	In Stock	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Relays	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock	
Unit Board UB3 (UT3)			UT3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB3 (UT3)			UT3 relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB3 (UT3)			UAT3 Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB3 (UT3)			UAT3 Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB3 (UT3)			Feeder to Unit Board - breaker UT3	Shares spare with Feeder to Station Board - breaker SSB-1.	BREAKER,EATON 4160V 2000A	In Stock	
Unit Board UB3 (UT3)			Feeder to transformer UAT3 - breaker UAT3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB3 (UT3)			BFE3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB3 (UT3)			BFW3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB3 (UT3)			FDE3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB3 (UT3)			FDW3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Unit Board UB3 (UT3)			CEN3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB3 (UT3)			CES3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB3 (UT3)			CWE3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB3 (UT3)			CWW3	Shares spare with Feeder to transformer SAT34 - breaker SAT34, 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Unit Board UB3 (UT3)			UT3 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
Unit Board UB3 (UT3)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	Relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
Station Board SB12 (SSB1)			SSB-3 Relay	Replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Relays	Replaced by SEL701	RELAY,PROTECTION SEL701	In Stock	
Station Board SB12 (SSB1)			Feeder to Station Board - breaker SSB-1 & Relays SSB-1 Relay	Direct replacement breaker 5HK-VR-250-2000A	BREAKER,EATON 4160V 2000A	In Stock	
Station Board SB12 (SSB1)			SSB-1 Relay	Replaced by ABB SYN5201-0271	SYNCHROCONTACT,SYN5201	In Stock	
Station Board SB12 (SSB1)			SSB-1 Relay	Replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock	
Station Board SB12 (SSB1)			SSB-1 Relay	Replaced by ABB RXMA/RXMH	RELAY,AUXILIARY RXMA-2	In Stock	
Station Board SB12 (SSB1)			SSB-1 Relay	Replaced by ABB RXMA/RXMH	RELAY,AUXILIARY RXMA-1	In Stock	
Station Board SB12 (SSB1)			SSB-1 Relay	Replaced by ABB RXMA/RXMH	RELAY,AUXILIARY RXMS-1	In Stock	
Station Board SB12 (SSB1)			SSB-1 Relay	Replaced by ABB RXMA/RXMH	RELAY,AUXILIARY RXMS-2	In Stock	
Station Board SB34 (ST34)			breaker PSM3 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB1 (UB1-2)			UB1-5 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB1 (UB1-2)			UB1-6 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB1 (UB1-2)			UB1-7 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB1 (UB1-2)			UB1-8 relay	n/a	RELAY,PROTECTION SEL701	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status	
Unit Board UB1 (UB1-2)			UB1-10 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB2 (UB2-1)			UB2-5 relay	Replaced by SEL701	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB2 (UB2-1)			UB2-6 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB2 (UB2-1)			UB2-7 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB2 (UB2-1)			UB2-8 relay	Replaced by SEL701	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			BFE3 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			BFW3 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			FDE3 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			FDW3 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			CEN3 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			CES3 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			CWE3 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			CWW3 relay	n/a	RELAY,PROTECTION SEL701	In Stock	
Unit Board UB3 (UT3)			Relays	n/a	RELAY,PROTECTION SEL701	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1) (Alternate Feed Tie Breaker to Transfer Bus C15)	Feeder to Power Centre - breaker C1	Purchasing re-build kit/critical spares kit for AK-1-50 frame breaker	BREAKER,EATON 600V	In Stock	
Station Board SB12 (SSB1)	Aux Transformer ATC - SSB3	Power Center C SAB12 (C1)	Feeder to MCC C1 - breaker C2	Purchasing re-build kit/critical spares kit for AK-2-25 frame breaker	BREAKER,EATON 600V	In Stock	
Station Board SB34 (ST34)			Feeder to transformer SAT34 - breaker SAT34 & relays	Direct replacement breaker 5HK-VR-250-1200A	BREAKER,EATON 4160V 1200A	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Station Board - breaker SAB34	Purchasing re-build kit/critical spares kit for 65H frame breaker	BREAKER,SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	Feeder to Station Board - breaker ATB12	Purchasing re-build kit/critical spares kit for 50H-2 frame breaker	BREAKER,SCHNEIDER 600V	In Stock	
Station Board SB34 (ST34)	Station Aux Transformer (SAT34)	Station Aux Board (SAB34)	WAM34	Purchasing re-build kit/critical spares kit for 50H-3 frame breaker	BREAKER,SCHNEIDER 600V	In Stock	
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Relays	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock	

Critical Spares - Thermal Generation

Asset			Critical Spare				Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description		
Unit Board UB1 (UB1-2)	UB13 (Aux Transformer ATA)	Power Center A UAB1 (A1) (Alternate Feed Transfer Bus A9)	Relays	Shares spare with CGE IAC51 and ICA53 devices - replaced by SEL-551C	RELAY,OVERCURRENT SEL 551C	In Stock	
Unit Board UB2 (UB2-1)	Aux Transformer ATB (UB22)	Power Center B UAB2 (B1)	Relays	Shares spare with all other P&B Golds devices.	RELAY,RETRO. PBSJ3E5N11	In Stock	



# Appendix F

## Critical Spares Status Listing – Gas Turbine Generation



Critical Spares Status - Hardwoods

Recommended Component	Stock Status as of December 2019	Risk Score	Expected Delivery	Comments
High Energy Ignition Unit, Gas Generator, Prime Mover Systems	In Stock	High	N/A	
Bearing (494047), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Bearing (494056), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Vibration Transducer, Gas Generator, Prime Mover Systems	In stock	Medium	N/A	
Jacking Oil Pump, Main Lube Oil System, Auxiliary Systems	In Stock	High	N/A	
Fuel Filter, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Oil Filter Unit - Complete (B.108506), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
Filter (494064), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Proximity Switch, Clutch, Prime Mover Systems	In Stock	Medium	N/A	
Altair Quick Shutoff Valve (AV-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	High	N/A	
Fuel Valve (FC-LF-1), Liquid Fuel System, Auxiliary Systems	In stock	High	N/A	
Fuel Recirculation Solenoid Valve (LF-7), Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A	
Fuel Regulator (LF-4), Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A	
Jacking Oil Permissive Pressure Switch, Main Lube Oil System, Auxiliary Systems	In Stock	High	N/A	
Valve (181536), Power Turbine Model CT2, Prime Mover Systems	In Stock	Low	N/A	
Primary Ratchet Ring, Clutch, Prime Mover Systems; A side	In Stock	High	N/A	
Primary Ratchet Ring, Clutch, Prime Mover Systems; B side	In Stock	High	N/A	
Secondary Ratchet Ring, Clutch, Prime Mover Systems; A side	In Stock	High	N/A	
Secondary Ratchet Ring, Clutch, Prime Mover Systems; B side	In Stock	High	N/A	
Ring that the Primary Pawl and spring are installed	In Stock	Medium	N/A	
Primary Pawl Spring, Clutch, Prime Mover Systems	In Stock	High	N/A	
Primary Pawl, Clutch, Prime Mover Systems	In Stock	High	N/A	
Secondary Pawl, Clutch, Prime Mover Systems	In Stock	Medium	N/A	
Limit Switch, Snow Door Assembly, Exhaust, Prime Mover Systems, SVL GT	In Stock	Medium	N/A	
Thermocouple (181398N1), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Speed Pickup (181487), Power Turbine Model CT2, Prime Mover Systems	In Stock	High	N/A	
Thermocouple (181397), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Thermocouple (181398N2), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Probe (181414N1), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	

Critical Spares Status - Hardwoods

Probe (181414N2), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A
Thermocouple (184847), Power Turbine Model CT2, Prime Mover Systems	In Stock	High	N/A
Motor Operated Tank Shutoff Valve (LF-38), Liquid Fuel System, Auxiliary Systems, HWD GT	In Stock	High	N/A
Final Fuel Filter (F-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A
Heater Filter Coalescer, Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A
Prefilter, Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A
High Efficiency Farr HP-100 Filter (2'x2'x2"), Filter Box - Curtiss Wright, Prime Mover Systems	In Stock	Medium	N/A
Filter (F-GGLO-1), Gas Generator Lube Oil System, Auxiliary Systems	In Stock	High	N/A
Unloading Filter, Liquid Fuel System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A
Duplex 25u Filter (F-LO-1), Main Lube Oil System, Auxiliary Systems	In Stock	Medium	N/A
Filter/Coalescer Heater (HTR-LF-1), Liquid Fuel System, Auxiliary Systems, HWD GT	In Stock		N/A
P3 Pressure Transducer (PT-P3-1), Liquid Fuel System, Auxiliary Systems	In Stock	High	N/A
Fuel Supply Thermocouple (TC-LF-1), Liquid Fuel System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A
Alternator Cooling Air Temperature Thermocouple (TC-A-1), Alternator Cooling System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A
Common Drain Clutch B Thermocouple (TC-LO-11), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A
Compressor Start-Stop Pressure Switch (PS-CA-1), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A
Compressor Start-Stop Pressure Switch (PS-CA-2), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A
Anti-icing Hot Air Valve - Complete (810-501-0747), Gas Generator, Prime Mover Systems	In Stock	Low	N/A
Gas Generator Permissive Start Pressure Switch, Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A
Starter Overpressure Pressure Switch (PS-CA-3), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A
Pressure Regulating Valve (LO-8), Main Lube Oil System, Auxiliary Systems	In Stock	Medium	N/A
Inlet Temperature Thermocouple, Gas Generator Enclosure with Septum Doors, Prime Mover Systems	In Stock	Medium	N/A
Resistance Temperature Detector Probe, Gas Generator Enclosure with Septum Doors, Prime Mover Systems	In Stock	Medium	N/A

Critical Spares Status - Hardwoods

NC Solenoid Valve (SV-CA-3), Gas Generator Air Starter System, Auxiliary Systems	in stock	High	N/A
Combustion Chamber, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A
Lower Fuel Pump Assembly, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A
Outer Fuel Pump Drive Assembly (BDA.7591), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A
Upper Fuel Pump Assembly, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A
Exciter Bearing, 63MVA 50MW Generator, Power Generation Systems	In Stock	High	N/A
Rotor Bearing, 63MVA 50MW Generator, Power Generation Systems	In Stock	High	N/A
Pressure Switch, Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	Medium	N/A
Oil to Clutch A Pressure Transducer (PT-LO-1), Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	High	N/A
Fuel Pressure Transducer (PT-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A
Oil Pump - Complete, Gas Generator, Prime Mover Systems	In Stock	Medium	N/A
Outer Oil Pump Drive Assembly (47-1-1-006409), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A
Outer Starter Drive Assembly (BDA.1153), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A
Scavenge Pump Assembly (47-1-1-006418), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A
HP Compressor Magnetic Pickup, Gas Generator, Prime Mover Systems	In Stock	Low	N/A
LP Compressor Magnetic Pickup, Gas Generator, Prime Mover Systems	In Stock	Low	N/A
Low Liquid Level Alarm Switch (LL-GL-1), MLO/Glycol Cooling System, Auxiliary Systems	In Stock	Medium	N/A
Heater Control Temperature Switch (TS-GGLO-1), Gas Generator Lube Oil System, Auxiliary Systems	In Stock	Medium	N/A
Heater Control Temperature Switch (TS-LO-1), Main Lube Oil System, Auxiliary Systems	In Stock	Medium	N/A
Final Fuel Filter Differential Pressure Switch (PSD-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	Medium	N/A
Inlet Pressure Transducer, Gas Generator Enclosure with Septum Doors, Prime Mover Systems	In Stock	Medium	N/A
Clutch Control Solenoid Valve (LO-6), Main Lube Oil System, Auxiliary Systems, SVL GT	In stock	Medium	N/A
Proximity Switch, Snow Door Assembly, Exhaust, Prime Mover Systems, HWD GT	In Stock	Low	N/A

Critical Spares List – Gas Turbine Generation

Part No.	Description	Recommended Component	Stock Status	Quantity on Hand	Expected Delivery
98200195	DETECTOR, THERMAL	TURBINE EXHAUST TUNNEL - THERMAL DETECTOR, MIDDE-FENWAL:12-HZ7121-020-08	Provided under service contract	0	N/A
98200198	ALARM, TROUBLE	FIRE CONTROL PANEL TROUBLE ALARM TO DCS, DET-TRONICS:U9500A	Provided Under Service Contract	0	N/A
98200199	ALARM, PANEL DISCHARGE	FIRE CONTROL PANEL DISCHARGE -ALARM TO DCS, NOTIFIER-AFP-300	Provided Under Service Contract	0	N/A
42100315	BELT, RADIATOR FAN	RADIATOR FAN BELT GROUP 1, CAT:7W5228	In Stock	6	N/A
60101080	SENSOR, TEMPERATURE	JCI TS-9103-8324	Engineering Required	0	TBD
60101096	VALVE, COMPRESSOR SOLENOID	HP COMPRESSOR BLEED VALVE SOLENOID, ASCO:JKC8316G74V	Engineering Required	0	TBD
60101124	TRANSMITTER, PRESSURE	INLET FILTER HOUSE BAROMETRIC - PRESSURE TRANSMITTER, SIEMENS: 7MF4233-1FA10-1AC1-Z+B21+Y01+Y15	Engineering Required	0	TBD
54900171	VALVE, COMPRESSOR BLEED	LP COMPRESSOR BLEED VALVE, .18", METSO AUTOMATION:815W 11 22HB XZC VA	In Stock	1	N/A
54900172	VALVE, COMPRESSOR BLEED	HP COMPRESSOR BLEED VALVE, .14", FISHER:A31A-1031/33082 SR80	In Stock	1	N/A
N/A	Module, ControlNet	Combination Generator Control Module with ControlNet communication	On Hand - under parts management agreement	1	N/A
N/A	IFM, Analog, 16 channel	Fusible 16 Channel Analog IFM, 24V Blown Fuse Indicators, 5 Terminals per Input, Analog Interface Module	On Hand - under parts management agreement	1	N/A
N/A	IFM, analog, 8 channel	Feed-Through 8 Channel Analog IFM, 3 Terminals per Input, Analog Interface Module	On Hand - under parts management agreement	1	N/A
N/A	IFM, digital, 40 point	40-Point Isolated Fusible Digital IFM, 5 x 20mm Fuse Clips, 24V AC/DC Blown Fuse Indicators, 4 Terminals per Input, Digital Interface Module	On Hand - under parts management agreement	1	N/A
N/A	Module, relay expander	Relay Expander Module, 24V DC, 16 Relays with Fusing	On Hand - under parts management agreement	1	N/A
N/A	10 Slot ControlLogix Chassis	10 Slot ControlLogix Chassis	On Hand - under parts management agreement	1	N/A
N/A	4 Slot ControlLogix Chassis	4 Slot ControlLogix Chassis	On Hand - under parts management agreement	1	N/A
N/A	Module, ControlNet interface	ControlNet interface Module (100 connections)	On Hand - under parts management agreement	1	N/A
N/A	Module, ControlNet redundant	ControlNet Redundant Interface Module (100 connections)	On Hand - under parts management agreement	1	N/A
N/A	Module, ControlNet bridge	ControlNet Redundant Bridge Module (40-48 connections)	On Hand - under parts management agreement	1	N/A
N/A	EtherNet 10-100M Interface Module (supports 128 TCP/IP connections)	EtherNet 10-100M Interface Module (supports 128 TCP/IP connections)	On Hand - under parts management agreement	1	N/A
N/A	EtherNet 10-100M Interface Module (supports 64 TCP/IP connections)	EtherNet 10-100M Interface Module (supports 64 TCP/IP connections)	On Hand - under parts management agreement	1	N/A
N/A	10-30 VDC Isolated Input 16 Pts (36 Pin)	10-30 VDC Isolated Input 16 Pts (36 Pin)	On Hand - under parts management agreement	1	N/A
N/A	10-30 VDC Individually Isolated Input 16 Pts (36 Pin)	10-30 VDC Individually Isolated Input 16 Pts (36 Pin)	On Hand - under parts management agreement	1	N/A
N/A	Analog Input - Current/Voltage 16 Pts (36 Pin)	Analog Input - Current/Voltage 16 Pts (36 Pin)	On Hand - under parts management agreement	1	N/A
N/A	Controller, controlLogix 5570, 2MB	ControlLogix 5570 Controller with 2 MB Memory, USB Port, 4 Character Alpha/Numeric Display.	On Hand - under parts management agreement	1	N/A
N/A	Controller, ControlLogix 5570, 4MB	ControlLogix 5570 Controller with 4 MB Memory, USB Port, 4 Character Alpha/Numeric Display.	On Hand - under parts management agreement	1	N/A
N/A	10-31 VDC Output 32 Pts (36 Pin)	10-31 VDC Output 32 Pts (36 Pin)	On Hand - under parts management agreement	1	N/A
N/A	10-31 VDC Output 32 Pts (36 Pin)	10-31 VDC Output 32 Pts (36 Pin)	On Hand - under parts management agreement	1	N/A

Critical Spares List – Gas Turbine Generation

N/A	Analog Output - Current/Voltage 8 Pts (20 Pin)	Analog Output - Current/Voltage 8 Pts (20 Pin)		On Hand - under parts management agreement	1	N/A
N/A	Power supply, 85-265VAC, 10 AMP	ControlLogix, 85-265 VAC Power Supply (10 Amp @ 5V)		On Hand - under parts management agreement	1	N/A
N/A	Power supply, 85-265VAC, 13 AMP	ControlLogix, 85-265 VAC Power Supply (13 Amp @ 5V)		On Hand - under parts management agreement	1	N/A
N/A	Redundancy Module	Redundancy Module		On Hand - under parts management agreement	1	N/A
N/A	ControlLogix Position and Time Services	ControlLogix Position and Time Services		On Hand - under parts management agreement	1	N/A
N/A	Ethernet Switch, Stratix 5700	Stratix 5700 Switch, Managed, 16 Fast Ethernet Copper Ports, 2 Fast Ethernet Combo Ports, 2 Fast Ethernet Fiber SFP Slots, Lite Software, DLR		On Hand - under parts management agreement	1	N/A
N/A	Module, ControlNet Repeater adapter	Networks and Communication Products, ControlNet Repeater Adapter Module		On Hand - under parts management agreement	1	N/A
N/A	Module, long distance fiber ring repeater	Networks and Communication Products, Long-distance Fiber Ring Repeater Module		On Hand - under parts management agreement	1	N/A
N/A	Module, long distance fiber ring repeater	Networks and Communication Products, Long-distance Fiber Ring Repeater Module		On Hand - under parts management agreement	1	N/A
N/A	Networks and Communication Products, Right-angle T-tap	Networks and Communication Products, Right-angle T-tap		On Hand - under parts management agreement	1	N/A
N/A	Networks and Communication Products, Right-angle Y-tap	Networks and Communication Products, Right-angle Y-tap		On Hand - under parts management agreement	1	N/A
N/A	module, adapter, 1794 ControlNet flex I/O	1794 Flex, Flex Ex, Flex XT I/O System, ControlNet FLEX I/O Adapter Module		On Hand - under parts management agreement	1	N/A
N/A	Module, Input, Flex XT I/O system, 16 inputs	1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 24VDC, 16 Sink Inputs		On Hand - under parts management agreement	1	N/A
N/A	Module, Input, Flex XT I/O system, 32 inputs	1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 24VDC, 32 Sink Inputs		On Hand - under parts management agreement	1	N/A
N/A	Module, analog input, flex xt I/O, 8 inputs	1794 Flex, Flex Ex, Flex XT I/O System, Analog Input Modules, 8 Single-Ended Inputs		On Hand - under parts management agreement	1	N/A
N/A	Module, analog input, flex xt I/O, 8 inputs	1794 Flex, Flex Ex, Flex XT I/O System, Analog Input Modules, 8 Single-Ended Inputs		On Hand - under parts management agreement	1	N/A
N/A	Module, analog, 16 bit, 4 point isolated	1794 Flex, Flex Ex, Flex XT I/O System, Analog Input Module, 16 Bit, 4 Point Isolated		On Hand - under parts management agreement	1	N/A
N/A	Module, input, 2 channel hires freq	1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 2-Channel High Resolution Frequency		On Hand - under parts management agreement	1	N/A
N/A	Module, input, 8 point RTD	1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 8 Point RTD		On Hand - under parts management agreement	1	N/A
N/A	Module, input, non-isolated, thermocouple, RTD, mV	1794 Flex, Flex Ex, Flex XT I/O System, Input Module, Non-Isolated, Thermocouple / RTD / Mv		On Hand - under parts management agreement	1	N/A
N/A	Module, input, thermocouple, 8 point	1794 Flex, Flex Ex, Flex XT I/O System, Input Module, Thermocouple, 8 Point		On Hand - under parts management agreement	1	N/A
N/A	Module, output, 24V DC, 32 outputs	1794 Flex, Flex Ex, Flex XT I/O System, Output Module, 24V DC, 16 Source Outputs		On Hand - under parts management agreement	1	N/A
N/A	Module, output, 24V DC, 32 outputs, protected	1794 Flex, Flex Ex, Flex XT I/O System, Output Module, 24V DC, 32 Source (2 groups of 16) Outputs, Protected		On Hand - under parts management agreement	1	N/A
N/A	module, analog output, 16bit, 4 point isolated	1794 Flex, Flex Ex, Flex XT I/O System, Analog Output Module, 16 Bit, 4 Point Isolated		On Hand - under parts management agreement	1	N/A
N/A	Module, I/O	PF750-24V I/O Module-2AI,2AO,6DI,2RO		On Hand - under parts management agreement	1	N/A
N/A	Adapter, comms, devicenet	PowerFlex Architecture Class DeviceNet Communication Adapter		On Hand - under parts management agreement	1	N/A
N/A	Terminal, AC Input, DC terminals	PowerFlex 753 AC Drive, with Embedded I/O, Air Cooled, AC Input with DC Terminals, Open Type, 14 Amps, 10HP ND, 7.5HP HD, 480 VAC, 3 PH, Frame 2, Filtered, CM Jumper Removed, DB Transistor, Blank (No		On Hand - under parts management agreement	1	N/A
N/A	Architecture, powerflex	PowerFlex Architecture Class Remote Enhanced HIM, IP66 (NEMA 4X/12) Indoor Use Only. Includes 1202-C30 cable.		On Hand - under parts management agreement	1	N/A
N/A	Display, 15in TFT, keypad/touch	PanelView Plus Display keypad/touch, 15-inch TFT Display, Color, No Options		On Hand - under parts management agreement	1	N/A

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N/A	Display, touch screen, 12.1inch	PanelView Plus Display Touch Screen, 12.1-inch TFT Display, None, High Bright	On Hand - under parts management agreement	1	N/A
N/A	Module, comms, panelview plus CE	ControlNet Scheduled and Unscheduled Communication Module for Marine Certified PanelView Plus 700-1500 and PanelView Plus CE	On Hand - under parts management agreement	1	N/A
N/A	Module, logic, panelview plus 6	PanelView Plus 6 Logic Module, Windows CE 6.0, 80 MB Non Volatile storage for applications, DC Power Input, No Options	On Hand - under parts management agreement	1	N/A
N/A	Relay, overload, 1.0-5.0A	592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 1.0-5.0A, NEMA 2	On Hand - under parts management agreement	1	N/A
N/A	Relay, overload, 3-15A	592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 3-15A, NEMA 2	On Hand - under parts management agreement	1	N/A
N/A	Relay, overload, 5-25A	592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 5-25A, NEMA 2	On Hand - under parts management agreement	1	N/A
N/A	Relay, overload, 9-45A	592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 9-45A, NEMA 2	On Hand - under parts management agreement	1	N/A
N/A	Relay, overload, 9-45A	592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 9-45A, NEMA 3	On Hand - under parts management agreement	1	N/A
N/A	Relay, overload, 18-90A	592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 18-90A, NEMA 3	On Hand - under parts management agreement	1	N/A
N/A	Relay, overload, 0.4-2.0A	592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 0.4-2.0A, NEMA 00	On Hand - under parts management agreement	1	N/A
N/A	Relay, overload, 60-302A	592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 60-302A, NEMA 5	On Hand - under parts management agreement	1	N/A
N/A	Module, ethernet server comms, DNP3	ProSoft Technology DNP 3.0 Ethernet Server Communication Module	On Hand - under parts management agreement	1	N/A
N/A	Module, comm modbus master/slave	ProSoft Technology Modbus Master/Slave Enhanced Communication Module	On Hand - under parts management agreement	1	N/A
54900195	REPAIR KIT, SOLENOID	PURGE SOLENOID REPAIR KIT, SURESITE:3153515	In Stock	2	N/A
58608460	SWITCH, TEMPERATURE	BARKSDALE HEATER CONTROL TEMPERATURE SWITCH, MODEL # T1X-S154-A, STAINLESS STEEL	In Stock	1	N/A
54900160	VALVE, SHUTDOWN PURGE	1", QS0065-4 DXP-L21GNEB JBHC8327G041-125VDC	In Stock	1	N/A
54900161	VALVE, CONTINUOUS PURGE	3", QS0600-4 DXP-L21GNEB EFHC8321G1	In Stock	1	N/A
60101156	FUSE, LOW VOLTAGE DC	REPLACEMENT FUSE (LOW VOLTAGE DC PIM), BENTLY NEVADA: 1720045	In Stock	1	N/A
60101157	MODULE, DC POWER SUPPLY	HIGH VOLTAGE DC POWER SUPPLY MODULE, BENTLY NEVADA:129486-01	In Stock	1	N/A
60101158	MODULE, POWER SUPPLY	LOW VOLTAGE DC POWER SUPPLY MODULE, BENTLY NEVADA:133292-01	In Stock	1	N/A
60101159	MODULE, POWER INPUT	LOW VOLTAGE DC POWER INPUT MODULE (PIM), BENTLY NEVADA:133300-01	In Stock	1	N/A
60101160	MANUAL, POWER SUPPLY MODULE	POWER SUPPLY MODULE, MANUAL, BENTLY NEVADA:129767-01	In Stock	1	N/A
60101184	TRANSDUCER, 55A CURRENT	E-CELL 55A CURRENT TRANSDUCER, PHOENIX CONTACT:3062518	In Stock	2	N/A
60101185	CONTACTOR, E-CELL 32A	E-CELL 32A CONTACTOR, GENERAL ELECTRIC:3060877	In Stock	2	N/A
3900023	HEATER, 400W PANEL	PANEL HEATER 120V 60HZ 400W, PH40011	In Stock	1	N/A
22900028	BELT, POLYBAND	BELT, 1320-BIT-B-EHX07-1250 3R 5VX1250, POLYBAND DODGE OR EQUAL	In Stock	1	N/A
25900063	COUPLING, FISHER	COUPLING, FISHER:17A8307X012	In Stock	1	N/A
37900016	IGNITER, SPARK PLUG	SOLAR SPARK PLUG IGNITER, CENTAUR:903316C1	In Stock	2	N/A
42100313	BELT, V	INGERSOLL RAND 95100178	In Stock	6	N/A



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42100314	SHAFT, FISHER	SHAFT, FISHER:7000400800	In Stock	1	N/A
42900001	PUMP, CONVERTER CHARGING	TORQUE CONVERTER CHARGING PUMP, KOENIG:X216228-J	In Stock	1	N/A
42900002	REPAIR KIT, SSS CLUTCH MINOR	KOENIG:SL17998MINKT	In Stock	1	N/A
54100202	VALVE, CHECK 3"	3MB60-6047-WR	In Stock	1	N/A
54100203	VALVE, SS POPPET CHECK	SS POPPET CHECK VALVE, SWAGELOCK:SS-6C-1	In Stock	1	N/A
54100206	VALVE, FUEL CHECK	FUEL LINE CHECK VALVE, PARKER:10A-CBG8L-10-PF-SS, VOGT:SW9871T,	In Stock	16	N/A
54100208	VALVE, CHECK	CHECK VALVE, SUN HYDRAULICS:CXDA-XAN	In Stock	1	N/A
54100209	VALVE, SOLENOID	SOLENOID VALVE, SUN HYDRAULICS:DIDA-MCN	In Stock	2	N/A
54300750	VALVE, FUEL BYPASS	MANUFACTURER:FISHER, MODEL:1008 HANDWHEEL ACTUATOR W/LOCKING MECHANISM, SIZE 40, TRAVEL LENGTH:3/4", CAPABLE OF GIVING PRECISE MANUAL - THROTTLING CONTROL, TRAVEL INDICATOR MOUNTED ON ACTUATOR - YOKE FOR VISUAL VALVE PLUG POSITION	In Stock	1	N/A
54300751	REPAIR KIT, BYPASS VALVE	REPAIR KIT FOR FUEL START-UP BYPASS VALVE, MANUFACTURER:FISHER, MODEL:EZ, SIZE:1", TRIM:1/4" M-FORM, USED FOR THROTTLING ON-OFF CONTROL OF LIQUID OR GASES, SINGLE PORT, GLOBE-STYLE BODY FOR - QUICK CHANGE TRIM & POST GUIDED UNBALANCED VALVE PLUG	In Stock	3	N/A
54400323	VALVE, PUMP DISCHARGE	PUMP DISCHARGE PRESSURE REGULATING VALVE, MOOG/FISHER:ET-657-DVC-6200, SERIAL # F000642304, TYPE:ET CAV 111, SIZE 1-1/2, PORT SIZE:1-5/16, RATING:CL600/1500 PSI CWP, PLUG:SST, STEM:SST, BODY:STL, SEAT:SST	In Stock	1	N/A
54400326	VALVE, PRESSURE RELIEF	HYDRAULIC FLUID PRESS RELIEF VALVE, REXROTH:R900341066	In Stock	1	N/A
54400327	VALVE, PRESSURE RELIEF	PUMP DISCHARGE - PRESSURE RELIEF VALVE, REXROTH:R900420276	In Stock	1	N/A
54400328	VALVE, PRESSURE RELIEF	VALVE MANIFOLD PRESSURE RELIEF VALVE, REXROTH:R900423723	In Stock	1	N/A
54400329	VALVE, PRESSURE RELIEF	MAIN PUMP DISCHARGE - PRESSURE RELIEF VALVE, REXROTH:R900424147	In Stock	1	N/A
54400332	VALVE, PRESSURE CONTROL	PRESSURE CONTROL VALVE, SUN HYDRAULICS:RDBA-LAN	In Stock	1	N/A
54500434	VALVE, SOLENOID	MECHANICAL PACKAGE LOUVER - SOLENOID VALVE, ASCO:WPKP8320A89MS	On Order	1	N/A
54500437	VALVE, SOLENOID	SOLENOID VALVE, TYCO: 52-287-10-024	In Stock	2	N/A
54500511	VALVE, SOLENOID	AIR CONTROL SOLENOID VALVE, 24VDC MINI, INGERSOLL RAND 633658	In Stock	1	N/A
54800068	VALVE, STOP	FISHER 3", 560lit-TH66 QS1600-4 DXP-L21GNEB	In Stock	1	N/A
54800069	FILTER, WATER	CLARK RELIANCE 2500PW	In Stock	28	N/A
54900162	ANALYZER, DEW POINT	INST AIR DEW POINT ANALYZER, MICHELL INSTRUMENTS:EA-XP-TX-EX1-C1-D1-E2-F1-G1-H1	In Stock	1	N/A
54900163	RACK & PINION, PNEUMATIC	ACTUATOR, TYPE PNEUMATIC RACK & PINION, FLOWSERVE:20E395WZ24D	In Stock	1	N/A
54900164	VALVE, AIR INLET	ATOMIZING AIR RECEIVER INLET VALVE, WORCESTER:5166TT150	In Stock	1	N/A
54900165	VALVE, AUTOMATIC DRAIN	MODEL AD-1 AUTOMATIC DRAIN VALVE, TYCO:52-793-2-004	In Stock	2	N/A
54900166	VALVE, AUTO SHUT-OFF	MODEL ASV-1 AUTOMATIC - SHUT-OFF VALVE, TYCO:92-343-1-021	In Stock	2	N/A
54900167	THERMOCOUPLE, TEMPERATURE	COMBUSTOR SHELL DISCHARGE - TEMPERATURE THERMOCOUPLE DUPLIX TYPE K	In Stock	2	N/A
54900169	VALVE, AIR FILTER DRAIN	COOLING AIR FILTER BLEED DRAIN VALVE, 1", WORCHESTER:B4446 XG SW	In Stock	1	N/A

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54900174	COIL, OVERSPEED TRIP	ELECTRONIC OVERSPEED TRIP, 9501W38	In Stock	1	N/A
54900175	COIL, MAGNETIC SPEED PICK-UP	TORQUE CONVERTER MAGNETIC SPEED PICK-UP COIL, KOENIG:9501W14	In Stock	1	N/A
54900176	VALVE, NEEDLE	1 SERIES NEEDLE VALVE, SWAGELOCK:IB-1VM4-S4/SS-1VM4-S4	In Stock	1	N/A
54900177	VALVE, FEMALE NEEDLE	FEMALE NEEDLE VALVE, MCMMASTER CARR:4644K33, 3/8"NPT	In Stock	2	N/A
54900178	VALVE, 6Z-PR4-BNT-SS	PARKER VALVE, MODEL# 6Z-PR4-BNT-SS	In Stock	1	N/A
54900188	VALVE, GLOBE	GLOBE VALVE, STEEL, VOGT:SW9871T, LUBE OIL FILTER TOWER #1 VENT VALVE	In Stock	2	N/A
54900189	INDICTATOR, SIGHT	1-1/2", JACOBY:100-S(NF)	In Stock	1	N/A
54900190	VALVE ASSY, PILOT	PILOT VALVE ASSEMBLY, CLIPPARD FV-SP W/MPA-3P, CLIPPARD:LWT3732	In Stock	1	N/A
54900194	FLOAT, SURESITE	FLOAT, SURESITE:88111	In Stock	1	N/A
54900196	VALVE, SUPPLY FILTER	HYD FLUID SUPPLY FILTER SELECTION VALVE, PALL:1319232	In Stock	1	N/A
54900197	VALVE, THROTTLE	THROTTLE VALVE, NFBC-LCN	In Stock	1	N/A
56200364	GASKET, FILTER HOUSING	GASKET, CLARK RELIANCE:A10137455, NESH 10117455	In Stock	6	N/A
56400182	O-RING, BUNA	HEAD TO BOWL O-RING BUNA, PALL:UK19672	In Stock	10	N/A
56400183	O-RING, FISHER	O-RING, FISHER:T1205106562	In Stock	1	N/A
56400184	BUSHING ASSY, FISHER POT	POT/BUSHING ASSEMBLY, FISHER:27B6208X012	In Stock	1	N/A
56500206	FILL KIT, SF6	ABB BREAKER SF6 FILL KIT, (HECS 805), S/N 1HC211015861	In Stock	1	N/A
58000077	BELT, 1320-BLT-S-EHX19-90	BELT, ECODYNE:1320-BLT-S-EHX19-90	In Stock	6	N/A
58101224	COUPLING, PUMP/MOTOR	JOHN CRANE:A045-3S78-1270, 1-1/2" - 2-3/8", ROUGH BORE	In Stock	1	N/A
58101225	PUMP, GEAR	DANFOSS:BERENDEN FLUID POWER SNP 2/11	In Stock	1	N/A
58101229	COUPLING, PUMP-MOTOR	COUPLING, REXNORD-OMEGA: REX ELASTOMER-ES-4(STANDARD ORANGE),PUMP-MOTOR	In Stock	1	N/A
58101230	COUPLING, PUMP-MOTOR	COUPLING, REXNORD-OMEGA: ELASTOMER-ES-5 (STANDARD ORANGE) PUMP-MOTOR	In Stock	1	N/A
58101231	REPAIR KIT, INJ. PUMP	CHEMICAL INJECTION PUMP REPAIR KIT, GRAINGER:K4PTC1	In Stock	1	N/A
58400504	FILTER, FUEL CAT 1R0749	FOR USE ON STAGE I AND II, EMERGENCY DIESEL MANUAL PRIMING PUMPS, CATERPILLAR #1R-0749	In Stock	10	N/A
58400762	ELEMENT, 0180MA0003BN	ELEMENT 0180MA0003BN (3µm), P/N 2059438, SPIN ON ELEMENT, MANUFACTURER:HYDAC	In Stock	1	N/A
58400763	FILTER, LIQUID FUEL	CLARK RELIANCE 2200A3	In Stock	24	N/A
58400764	FILTER, AIR (ELEMENT)	INGERSOLL RAND 32012957	In Stock	14	N/A
58400766	ELEMENT, PRE-FILTER	PRE-FILTER ELEMENT 105 SCFM, INGERSOLL RAND 85565679	In Stock	6	N/A
58400768	FILTER, AIR	GEN AIR FILTERS, COMPACT FILTER G4/F7 287 X 292 X 300, SIEMENS	In stock	16	N/A
58400769	FILTER, AIR	GEN AIR FILTERS, COMPACT FILTER, G4/F7 592 X 292 X 300, SIEMENS	In Stock	64	N/A

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58400772	FILTER KIT, FUEL	LOW PRESSURE FUEL FILTER REPLACEMENT KIT, CENTAUR:912555C3	In Stock	1	N/A
58400775	KIT, OIL FILTER & O-RING	LUBE OIL FILTER & O-RING KIT, CENTAUR:9161283C1	In Stock	6	N/A
58400778	FILTER, 961131CI FUEL	CENTAUR:912555C1 (ELEMENT & GASKET KIT)	In Stock	6	N/A
58400780	FILTER, FUEL BOOST KIT	LOW PRESSURE, 912343C1	In Stock	1	N/A
58400782	FILTER, IGV ACTUATOR	MOOG:864567-1V	In Stock	5	N/A
58400783	FILTER, TMP-95 FINAL	PNEUMAFIL:S52538B1, V-CELL STMPM16 STATIC BARRIER FILTER, 24"X24"X12", INJECTION MOLDED PLASTIC FRAME, 100% SYNTHETIC MEDIA, NEOPRENE SPONGE RUBBER GASKET - DOWN STEAM SIDE	In Stock	55	N/A
58400784	PRE-FILTER, Z-100	PNEUMAFIL:S52709C1, PRE-FILTER PANEL, 24"X24"X4"73 (FT2) SYNTHETIC MEDIA, PLASTIC FRAME FOR HIGHER PERFORMANCE AND LOWER PRESSURE DROP	In Stock	83	N/A
58400785	PRE-FILTER, PARKER AIR DRYER	PARKER AIR DRYER PRE-FILTER, PARKER FILTER CARTRIDGE# 6C10-050	In Stock	8	N/A
58400786	AFTER-FILTER, AIR DRYER	AIR DRYER AFTER FILTER, PN 25-178-50C, PARKER FILTER CARTRIDGE # 10C10-050	In Stock	4	N/A
58400787	FILTER, PRESSURE	PALL- ELEMENT HC9600FCP4H	In Stock	4	N/A
58400788	ELEMENT, POST FILTER	POST FILTER ELEMENT 105 SCFM, INGERSOLL RAND 85565661	In Stock	6	N/A
58400790	TRANSMITTER, PRESSURE	ROSEMOUNT:3051S2TG3A2A11A1AM5Q4	In Stock	1	N/A
58400791	FILTER, LUBE OIL	LUBE OIL FILTER, CLARKE RELIANCE:A2200A4, NFS:2200A4	In Stock	19	N/A
58400792	KIT, SOFT PARTS	SOFT PARTS KIT, CLARKE RELIANCE:A10400107, NFS:10400107	In Stock	1	N/A
58400797	FILTER, FLOW CONTROL	FILTER AUTOMATIC FLOW CONTROL, 4"FNPT, MODEL:ST-400-25, 240GPM, PENTAIR:LWT 3949	In Procurement Process	0	TBD
58400798	FILTER, FLOW CONTROL	FILTER AUTOMATIC BACKWASH FLOW CONTROL, 4" FNPT, MODEL:ST-400-25, 245GPM, MODULAR PIPING SUPPLY INC: LWTS430	In Stock	1	N/A
58400799	CARTRIDGE, DESICCANT	PNEUMATIC PRODUCTS:3153517	In Stock	1	N/A
58400801	FILTER, OIL 275-2604	OIL FILTER, CAT:275-2604	In Stock	6	N/A
58400802	FILTER, AIR 4P0710S	AIR FILTER, CAT: 4P0710	In Stock	2	N/A
58400824	PRE-FILTER, AIR COOLING		In Stock	71	N/A
58400825	PRE-FILTER, AIR COOLING		In Stock	31	N/A
60101067	METER, FLOW	ROSEMOUNT:3051SFC1CS030N065-T33EA1ASQ4E6M5	In Procurement Process	0	TBD
60101068	TRANSMITTER, LIQUID FUEL TEMP	LIQUID FUEL TEMPERATURE TRANSMITTER, ROSEMOUNT 644HAK6M5Q416	In Stock	1	N/A
60101069	SWITCH, PUMP SUPPLY PRESSURE	PUMP SUPPLY PRESSURE SWITCH, CCS 646GZEM1	In Stock	1	N/A
60101070	TRANSMITTER, PUMP DISCHARGE	PUMP DISCHARGE PRESSURE TRANSMITTER, ROSEMOUNT 3051CG5A22A1A55B4C6M5Q4	In Stock	1	N/A
60101071	VALVE, ACTUATED THROTTLE	PNEUMATICALLY ACTUATED THROTTLE VALVE, FISHER ET-677-DVC-6200	In Stock	1	N/A
60101072	SWITCH, PUMP DISCHARGE PRESS.	PUMP DISCHARGE PRESSURE SWITCH, CCS 646GZEM5	In Stock	1	N/A
60101073	METER, FLOW	ROSEMOUNT:3051SFC1CS030NXT33DA1A5DQ4E6M5	In Procurement Process	0	TBD
60101074	CONTROLLER, STEP LIFO	8 STAGES, SCL4000-8	In Stock	1	N/A

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60101075	CONTROLLER, LIMIT (0-2502-F)	LIMIT CONTROLLER (0-2502-F), SA100KA3-MN-4*NN-D1/Y	In Stock	1	N/A
60101076	CONTROLLER, STEP LIFO (4 STAGE)	STEP CONTROLLER LIFO (4 STAGES), SCL4000-4	In Stock	1	N/A
60101077	DRYER, INSTRUMENT AIR	INSTRUMENT AIR DRYER DIFFERENTIAL PRESSURE, DIFFERENTIAL PRESSURE TRANSMITTER, ROSEMOUNT:3051S2CD3A2A11A1A1L1L2L4M5Q4	In Stock	1	N/A
60101079	SWITCH, PRESSURE	DIFFERENTIAL PRESSURE SWITCH, JOHNSON CONTROLS: JCI P 233 A-10-AAC	In Stock	1	N/A
60101082	SWITCH, HEATER SUPPLY FLOW	FUEL OIL INLINE HEATER SUPPLY FLOW SWITCH, MAGNETROL TD2-7D01-0G0 C/W TEA-A110-004, THERMAL DISPERSION FLOW SWITCH	In Stock	1	N/A
60101083	GAUGE, PRESSURE	FUEL UNLOADING PUMPS OUTLET PRESSURE/GAUGE PRESSURE TRANSMITTER, ROSEMOUNT:3051S2TG3A2E11A1AB4K6M5Q4	In Stock	1	N/A
60101084	TRANSMITTER, RADAR LEVEL	FUEL OIL TANK 1 LEVEL RADAR LEVEL TRANSMITTER, ROSEMOUNT:5402AH1E64SPVDAM1C1S3	In Stock	1	N/A
60101085	LEVEL SWITCH, DAY TANK	FUEL OIL TANK HIGH LEVEL SWITCH, ULTRASONIC GAP LEVEL SWITCH, MAGNETROL:961-2DA0-030 C/W 9A1-A43A-018	In Stock	1	N/A
60101086	TRANSMITTER, HEATER DISCHARGE	FUEL OIL INLINE HEATER DISCHARGE TEMPERATURE TRANSMITTER, ROSEMOUNT:644HAK6J6M4	In Stock	1	N/A
60101087	RTD, HEATER DISCHARGE TEMP.	FUEL OIL INLINE HEATER DISCHARGE TEMPERATURE RTD, ROSEMOUNT:68 SERIES/0068DD1C30A020T26	In Stock	1	N/A
60101088	LEVEL TRANSMITTER, LEVEL	FUEL OIL DAY TANK LEVEL RADAR LEVEL TRANSMITTER, ROSEMOUNT:5402AH1E64PNACAM1C1	In Stock	1	N/A
60101089	SWITCH, DISPLACER LEVEL	FUEL OIL TANK HIGH LEVEL SWITCH, DISPLACER LEVEL SWITCH, MAGNETROL MODEL # A15-1E2B-HM3, SERIAL # 744243-01-001	In Stock	1	N/A
60101090	SWITCH ASSEMBLY, LIMIT	MICROSWITCH # LSA2B	In Stock	2	N/A
60101092	CABLE, SOLAR, IGNITER	CENTAUR:919340C2	In Stock	1	N/A
60101094	PICKUP, MAGNETIC	CENTAUR:P/N 190430-1	In Stock	1	N/A
60101095	SWITCH, OVERSPEED	CENTAUR KIT P/N1071653-2600	In Stock	1	N/A
60101099	TRANSMITTER, GUIDE POSITION	INLET GUIDE VANE POSITION TRANSMITTER, FISHER-4200 SERIES (4200)	In Stock	1	N/A
60101101	VALVE, SOLENOID	RAC FILTER DRAIN SOLENOID VALVE, PARKER:H2223N	In Stock	1	N/A
60101104	SWITCH, HIGH PRESSURE	LUBE OIL FILTER DELTA HIGH PRESS SWITCH, MIDWEST:12D-AA-09-0-CZ	In Stock	1	N/A
60101106	GAUGE, OIL TEMPERATURE	LUBE OIL COOLER OUTLET TEMP GAUGE, ASHCROFT:6008-01-CEXSG	In Stock	2	N/A
60101107	SWITCH, PRESSURE	BEARING LUBE OIL HEADER PRESS#1 LOW, PRESSURE SWITCH, UNITED ELECTRIC CONTROLS:J402-146-1521	In Stock	1	N/A
60101109	VALVE, PRESSURE CONTROL	BEARING LUBE OIL PRESSURE CONTROL VALVE, FISHER:ED-655	In Stock	1	N/A
60101110	SWITCH, PRESSURE	EMERGENCY LUBE OIL PUMP DISCHARGE - PRESSURE SWITCH, UNITED ELECTRIC CONTROLS - J400-146-1521	In Stock	1	N/A
60101111	INDICATOR, VACUUM PRESSURE	LUBE OIL RESERVOIR VACUUM - PRESSURE INDICATOR, ASHCROFT:45-11877SS-04B	In Stock	1	N/A
60101114	SWITCH, TEMPERATURE	LUBE OIL RESERVOIR TEMPERATURE SWITCH, HONEYWELL:T775A2009	In Stock	1	N/A
60101115	SWITCH, PRESSURE	MAIN LUBE OIL PUMP #1 - DISCHARGE PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: J402-164-1521	In Stock	1	N/A
60101117	SENSOR, #1 OVERSPEED TRIP	OVERSPEED TRIP SENSOR #1, ELECTRO CORP:3090A35	In Stock	2	N/A
60101119	SWITCH, MANIFOLD PRESSURE	INLET AIR MANIFOLD PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: J400K-455-1520	In Stock	1	N/A
60101120	SWITCH, DIFFERENTIAL PRESS	DIFFERENTIAL PRESSURE SWITCH, PNEUMAFIL:552033-B1	In Procurement Process	0	TBD

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60101121	SWITCH, DIFFERENTIAL PRESSURE	INTAKE AIR STATIC FILTER DIFFERENTIAL - PRESSURE SWITCH, SOR:107AL-K12-P1-F1A	In Stock	1	N/A
60101122	TRANSMITTER, 31 TEMPERATURE	INLET SCROLL TEMPERATURE TRANSMITTER #1, YOKAGAWA:YTA320-EA2NN/FUJ/D2/Z	In Stock	1	N/A
60101123	RTD, #1 PRIMARY SIGNAL	INLET SCROLL RTD #1 PRIMARY SIGNAL, ROSEMOUNT:0078-N-25-N-00-A-060-T26-XA	In Stock	1	N/A
60101125	SWITCH, PRESSURE	INSTRUMENT AIR SYSTEM PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: H122-184, MFG PN 0409-007	In stock	1	N/A
60101126	SWITCH, LOW ALARM PRESSURE	INSTR.AIR COMPRESSOR RECEIVER - LOW PRESSURE ALARM SWITCH, UNITED ELECTRIC CONTROLS: H122-274	In Stock	1	N/A
60101127	VALVE, SOLENOID	INST AIR SYSTEM ISOLATION SOLENOID VALVE, ASCO:HCL8316G66MB	In stock	1	N/A
60101128	SWITCH, START STOP PRESSURE	INSTR.AIR COMPRESSOR START STOP, PRESSURE SWITCH, HUBBELL INDUSTRIAL CONTROL: 69HA109779U	In Stock	1	N/A
60101129	INDICTATOR, LOW OIL LEVEL	INSTRUMENT AIR COMPRESSOR LOW - OIL LEVEL INDICTATOR, INGERSOLL RAND:22102388	In Stock	1	N/A
60101131	SWITCH, OIL PUMP PRESSURE	GENERATOR MAIN JACKING OIL PUMP - PRESSURE SWITCH, BARKSDALE:BIT-H04	In Stock	2	N/A
60101132	SWITCH, OIL FLOW	GENERATOR TURBINE END BEARING - JACKING OIL FLOW SWITCH, MEISTER:DKM/A-1/10	In stock	2	N/A
60101134	VALVE, AIR BLEED	HYD FLUID AIR BLEED VALVE, HYDAC:AEV6/5 00230023	In Stock	1	N/A
60101135	SWITCH, DISCH PRESSURE	HYD FLUID PUMP #1 DISCHARGE - PRESSURE SWITCH, REXROTH:HED 3 OAEX/63/12	In Stock	1	N/A
60101137	TRANSMITTER, LEVEL	HYD FLUID RESERVOIR - LEVEL TRANSMITTER, GEMS:XT-800	In Stock	1	N/A
60101138	INDICATOR, LEVEL	HYD FLUID RESERVOIR LEVEL INDICATOR, REXROTH:CS3615-244910	In Stock	1	N/A
60101139	TRANSMITTER, PRESSURE	HYD FLUID HEADER SUPPLY - PRESSURE TRANSMITTER, ROSEMOUNT: 3051TG4A2A21AMSQ4	In Stock	1	N/A
60101140	SWITCH, TEMPERATURE (OFF)	HYD FLUID COOLER FAN MOTOR - TEMPERATURE SWITCH (OFF), UNITED ELECTRIC CONTROLS: C402-120-1070-M202 135/120F	In Stock	1	N/A
60101141	SWITCH, TEMPERATURE (ON)	HYD FLUID COOLER FAN MOTOR - TEMPERATURE SWITCH (ON), UNITED ELECTRIC CONTROLS: C402-120-1070-M202 135/120F	In Stock	1	N/A
60101142	SWITCH, TEMPERATURE	HYD FLUID RESERVOIR HEATER - TEMPERATURE SWITCH, UNITED ELECTRIC CONTROLS: C402-120-1070-M202 73/86F	In Stock	1	N/A
60101143	SWITCH, DIFF. PRESSURE	HYD FLUID SUPPLY FILTER - DIFFERENTIAL PRESSURE SWITCH, PALL:RC0113CZ097H	In Stock	1	N/A
60101144	THERMOCOUPLE, RESERVOIR	HYD FLUID RESERVOIR THERMOCOUPLE, OMEGA:NB1-CASS-14U-1.2" DUAL	In Stock	1	N/A
60101149	SWITCH, CHLORINE FLOW	CHLORINE INJECTION FLOW SWITCH, DWYER INSTRUMENTS:FS2	In Stock	1	N/A
60101152	ACTUATOR, PNEUMATIC	DOUBLE ACTING PNEUMATIC ACTUATOR, KEYSTONE MORIN, TYCO:MRP 004	In Stock	1	N/A
60101153	TRANSMITTER, PRESSURE	0-500 PRESSURE TRANSMITTER - RO SKID, AUTOMATION DIRECT: PTD25-20-0500H	In Stock	1	N/A
60101154	TRANSMITTER, PRESSURE	PRESSURE TRANSMITTER, AUTOMATION DIRECT:PTD25-20-0100H, 0-100 PSI - VARIOUS SKIDS	In Stock	3	N/A
60101155	INPUT CARD, PLC	ANALOG INPUT CARD FOR PLC, VARIOUS SKIDS, AUTOMATION DIRECT:FO-04AS1	In Stock	1	N/A
60101162	VALVE, BALL	1.5", STAINLESS STEEL, MCMASTER CARR: 45995K84	In Stock	1	N/A
60101171	SWITCH, PRESSURE	PRESSURE SWITCH, BARKSDALE:XIT-4100-25	In Stock	1	N/A
60101172	SWITCH, PRESSURE	PRESSURE SWITCH, DRUCKSCHALTER: D1 TM80 SS	In Procurement Process	0	TBD
60101173	MODULE, POWER SWITCH	LEVEL SWITCH MODULES, SURESITE: 87480	In Stock	1	N/A

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60101174	ACTUATOR, LOUVER	ELECTRICAL PACKAGE LOUVER ACTUATOR, ML4115B1008	In stock	1	N/A
60101175	THERMOSTAT, VENTILATION	MECHANICAL PACKAGE - VENTILATION THERMOSTAT, T631C1012	In Stock	1	N/A
60101178	KIT, STACK FITTINGS	E-CELL STACK FITTINGS KIT, GENERAL ELECTRIC:3019638	In Stock	1	N/A
60101179	RELAY, SINGLE POLE	SINGLE POLE RELAYS - VARIOUS SKIDS, AUTOMATION DIRECT:781-1C-120A	In Stock	2	N/A
60101191	SWITCH, DIFF PRESSURE	IGV ACT HYD FLUID FILTER- DIFF PRESS HIGH SWITCH, MOOG:G4444-2	In Stock	1	N/A
60800395	MONITOR, MULTIFUNCTION	MULTIFUNCTION MONITOR - ORP OR CONDUCTIVITY, RYAN HERCO:5924-562	In Stock	1	N/A
60800396	POWER SUPPLY, 24VDC	24VDC POWER SUPPLY, AUTOMATION DIRECT:PSB24-060D	In stock	1	N/A
60800397	SENSOR, ORP	ORP SENSOR, RYAN HERCO:5909-751, RAW WATER PUMP - VARIOUS SKIDS	In Stock	1	N/A
60900049	SENSOR, CONDUCTIVITY	CONDUCTIVITY SENSOR - RO, RYAN HERCO:5926-200	In Stock	1	N/A
61100423	MANIFOLD, PRESSURE TRANSMITTER	ROSEMOUNT 0305RC22B11	In Stock	1	N/A
61100426	GAUGE, PRESSURE	ATOMIZING AIR HEADER PRESSURE GAUGE, PRESSURE TRANSMITTER, ROSEMOUNT:3051S2TG3A2A11A1AM5Q4	In Stock	1	N/A
61100427	INDICATOR, BLUE MOISTURE	BLUE MOISTURE INDICATOR, INGERSOLL RAND 705001-SP	In Stock	1	N/A
61100428	THERMOMETER, RESISTANCE	SIEMENS:WQ.0233 2XPT100, INSTALLATION LENGTH 250MM, HAN 8D	In Stock	1	N/A
61100429	THERMOCOUPLE, SHELL	SIEMENS:MQ.0206-PVDF8 3XTC(K), INSTALLATION LENGTH 375MM, HAN 8D	In Stock	1	N/A
61100431	FLOWMETER, TURBINE	FUEL OIL UNLOADING FLOW LIQUID TURBINE FLOWMETER, HOFFER FLOW CONTROLS: HO SERIES/6X6-75-1250-CB-1M/XE2-F1C5-EXP	In Stock	1	N/A
61100432	INDICTATOR, DISCHG PRESS	HYDRAULIC FLUID PUMP #1 - DISCHARGE PRESSURE INDICTATOR, REXROTH:2-1/2/1500PUA31-10A-4 JIC	In Stock	1	N/A
61100433	SWITCH, DIFF PRESSURE	HYDRAULIC FLUID CONDITIONING LOOP - FILTER DIFFERENTIAL PRESSURE SWITCH, PALL:RC0113CZ090H	In Stock	1	N/A
61100434	FLOWMETER, MAGNETIC	RAW WATER FLOW MAGNETIC FLOWMETER, ROSEMOUNT:8705TSA060C1W0N0G1	In Stock	1	N/A
61100435	TRANSMITTER, TANK LEVEL	RAW WATER STORAGE TANK LEVEL RADAR - LEVEL TRANSMITTER, ROSEMOUNT:5402AH1E64SPVCAM1CIS3	In Stock	1	N/A
61100436	GAUGE, PRESSURE	RAW WATER PUMP 1 & 2, DISCHARGE GAUGE, PRESSURE TRANSMITTER, ROSEMOUNT: 3051S2TG2A2A11A1AB4M5Q4	In Stock	1	N/A
61100437	REGULATOR, SIGNAL PRESSURE	STAGE 2 TEMPERATURE CONTROL VALVE - AIR SIGNAL PRESSURE REGULATOR, FISHER:67CF-1663-38656	In Stock	1	N/A
61100439	SOLENOID, BLEED VALVE	LP COMPRESSOR BLEED VALVE SOLENOID, ASCO:JK8316G034V	In Stock	1	N/A
61100440	THERMOCOUPLE, BLADE PATH	COMPRESSOR BLADE PATH THERMOCOUPLE, DUPLEX TYPE K	In Stock	8	N/A
61100450	GAUGE, CONVERTER PRESSURE	STARTING PACKAGE TORQUE CONVERTER PRESSURE GAUGE, KOENIG:BAC-160-25	In Stock	2	N/A
61100451	GAUGE, CAPSUHELIC	CAPSUHELIC GAUGE 0-6" W.C., PNEUMAFIL:551646-81	In Stock	1	N/A
61100452	INDICTATOR, PRESSURE	INTAKE AIR STATIC FINAL-FILTER - DIFFERENTIAL PRESSURE INDICTATOR, DWYER INSTRUMENTS:4006	In Stock	1	N/A
61100453	INDICTATOR, PRESSURE	INTAKE AIR STATIC PRE-FILTER - DIFFERENTIAL PRESSURE INDICTATOR, DWYER INSTRUMENTS:4002	In Stock	1	N/A
61100454	GAUGE, CAPSUHELIC	CAPSUHELIC GAUGE 0-2" W.C., PNEUMAFIL:551646-B6	In Stock	1	N/A
61100455	TRANSMITTER, PRESSURE	PRESSURE TRANSMITTER 0-300 PSI 4-20MA, ROSEMOUNT:3051TA3A2B21AES	In Stock	1	N/A

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61100456	REGULATOR, PRESSURE	PRESSURE REGULATOR - AIR SUPPLY FROM INSTR AIR COMPRESSOR, FISHER:FS64-29	In Stock	1	N/A
61100457	GAUGE, PRESSURE	INSTR. AIR COMPRESSOR PRESSURE GAUGE, AIR CENTERS OF FLORIDA:5ZP76	In Stock	1	N/A
61100458	GAUGE, PRESSURE	PRESSURE GAUGE - FOR INSTR AIR COMPRESSOR, ASHCROFT:45-13772204b, RANGE:0-200 PSI	In Stock	1	N/A
61100460	GAUGE, PRESS REGULATING	PRESSURE REGULATING GAUGE - AIR SUPPLY FROM INSTR AIR COMPRESSOR, FAIRCHILD:4066AT	In Stock	1	N/A
61100463	GAUGE, PRESSURE	PRESSURE GAUGE 0-160PSI, LIQUID FILLED BACK MOUNT, STAINLESS STEEL, AUTOMATION DIRECT:G25-SL160-4LB	In Stock	1	N/A
61100464	GAUGE, PRESSURE	PRESSURE GAUGE 0-100PSI, LIQUID FILLED LOWER MOUNTED, STAINLESS STEEL, AUTOMATION DIRECT:G25-SD100-4LS	In Stock	1	N/A
61100465	GAUGE, PRESSURE	PRESSURE GAUGE 0-100PSI, LIQUID FILLED BACK MOUNTED, STAINLESS STEEL, AUTOMATION DIRECT:G25-SD100-4CS	In Stock	1	N/A
61100466	GAUGE, PRESSURE, 0-500PSI	PRESSURE GAUGE 0-500PSI, LIQUID FILLED BACK MOUNTED, STAINLESS STEEL, DWYER INSTRUMENTS:SGY-D11142N-GF	In Stock	1	N/A
61100467	GAUGE, PRESSURE 0-500PSI	PRESSURE GAUGE 0-500 PSI, LIQUID FILLED LOWER MOUNTED, STAINLESS STEEL, DWYER INSTRUMENTS:SGY-D11122N-GF	In Stock	1	N/A
61100469	DIVIDER, FLOW	FLOW DIVIDER, JAHNS HYDRAULIK:MTO-2-5-G	In Stock	1	N/A
61900223	TRANSMITTER, DEW POINT -100F	-40F AND -100F, INGERSOLL RAND P/N 23182603	In Stock	2	N/A
61900225	MONITOR, GROUND VERIFICATION	TRUCK UPLOADING GROUND VERIFICATION MONITOR, 8030-120 GROUND VERIFICATION MONITOR, CIVACON	In Stock	1	N/A
65000435	MOTOR, FLAP ACTUATOR	JOHNSON CONTROLS, JCI M9132-GGA-1	In Stock	1	N/A
65000436	BRUSH, CARBON MOTOR	1 SET = 2 PIECES, ABB: GPFX052143P0098	In Stock	2	N/A
65000438	VALVE, SOLENOID	GENERATOR JACKING OIL - SOLENOID VALVE, SUN HYDRAULICS:DIDA-MCN	In Stock	1	N/A
65000439	MOTOR, 10 HP DC TURNING GEAR	KOENIG: DG6711A	In Stock	1	N/A
65000442	MOTOR, BALDOR	BALDOR:VEM3770T NEMA	In Stock	1	N/A
65900003	BRUSH SET, TURNING MOTOR GEAR	TURNING GEAR MOTOR BRUSH SET, 419904-51AC	In Stock	4	N/A
65900004	COUPLING, PUMP/MOTOR	SIZE 1040T20, FLEXIBLE GRID TYPE, VERTICAL ORIENTATION, MANUFACTURER:FALK	In Stock	1	N/A
68601089	RELAY, DPDT 120VAC	RCP8002 120AC	In Stock	1	N/A
68601090	RELAY, TPDT 120VAC	RCP1103 120AC	In Stock	1	N/A
68601093	CUT-OUT, AUTO	AUTO CUT-OUT, CHROMOLOX:168-053169-1 05	In Stock	3	N/A
70000370	FUSE, AGC 1A 250V	AGC 1	In Stock	10	N/A
70000373	FUSE, AGC 3A 250V		In Stock	10	N/A
70000481	FUSE, POWER CLASS J 45A	A4J45	In Stock	10	N/A
70000482	FUSE, PRIMARY 20A	ATQR20	In Stock	4	N/A
70000483	FUSE, SECONDARY 8A	ATQR8	In Stock	4	N/A
70000484	CONTACTOR, 50A 120VAC	42CF35AF	In Stock	2	N/A
70000485	FUSE, PANEL HEATER 4.5A	PANEL HEATER FUSE 4.5A, ATQR4.5	In Stock	3	N/A

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70000486	FUSE, AC 25A	ATQR25	In Stock	4	N/A
70000487	FUSE, SIEMENS PG	SIEMENS PG 840C208FO1	In Stock	2	N/A
70000488	FUSE, 15.0A	BUSSMAN:LP-CC-15.0	In Stock	10	N/A
70000489	FUSE, 5.0A	BUSSMAN:LP-CC-5.0	In Stock	20	N/A
70000490	FUSE, 1.0A	BUSSMAN:LP-CC-1	In Stock	10	N/A
70000491	FUSE, 2.0A 300 VDC	BUSSMAN:LP-CC-2	In Stock	11	N/A
70000492	FUSE, 3.0A	BUSSMAN:LP-CC-3.0	In Stock	20	N/A
70000493	FUSE, 12A	FUSE 12A, SIEMENS:500232012	In Procurement Process	0	TBD
70000500	FUSE, 2AMP	FUSE 2 AMP, GMC-2-A, BUSSMAN:GMC-2-A	In Stock	10	N/A
70000501	FUSE, 3AMP GMC-R	FUSE 3AMP, BUSSMAN:GMC-3-R	In Stock	10	N/A
70000502	FUSE, 3A E-CELL	E-CELL FUSE 3A, BUSSMAN:3060756	In Stock	10	N/A
70000503	FUSE, 25A E-CELL	E-CELL FUSE 25A, BUSSMANN:1154697	In Stock	2	N/A
70000504	FUSE, 2A E-CELL	E-CELL FUSE 2A, BUSSMANN:3060755	In Stock	2	N/A
70000506	FUSE, 6A GMC-6A	6AMP, GMC-6A, BUSSMANN:LWT7345	In Stock	10	N/A
70000507	FUSE, 1.25A GMC-1.25A	FUSE 1.25 AMP, GMC-1.25-A, BUSSMANN:LWT9119	In Stock	10	N/A
70000508	FUSE, 8A E-CELL	E-CELL FUSE 8A, MERSEN ELECTRIC POWER:3060752	In Stock	4	N/A
70000509	FUSE, AC PIM	REPLACEMENT FUSE FOR AC PIMS, BENTLY NEVADA:1720025	In Stock	3	N/A
74201106	CONTACT, 1NC BLK	CONTACT BLK 1NC, SIEMENS:52BAK	In Stock	1	N/A
74600097	PILOT LIGHT ASSEMBLY, AMBER	PILOT LIGHT ASSEMBLY AMBER 120VAC, A13200-05	In Stock	6	N/A
74600099	MODULE, TMR /O	I/O MODULE WITH INTERNAL BARRIERS - (INTERNAL TERMINATIONS)(4 X PROX/ACCEL)	In Stock	1	N/A
74600100	MODULE, TMR /O	PROX/SEISMIC TMR I/O WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:126632-01	In Stock	1	N/A
74600101	MODULE, PROX/VELOM I/O	PROX/VELOM I/O MODULE WITH INTERNAL TERMINATIONS, BENTLY NEVADA:140471-01	In Stock	1	N/A
74600102	MODULE, PROX/VELOM I/O	PROX/VELOM I/O MODULE WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:140482-01	In Stock	1	N/A
74600103	MODULE, SHAFT ABSOLUTE	SHAFT ABSOLUTE I/O MODULE WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:138708-01	In Stock	1	N/A
74600104	MODULE, PROX/SEISMIC	PROX/SEISMIC I/O MODULE WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:128240-01	In Stock	1	N/A
74600105	MODULE, I/O	I/O MODULE WITH INTERNAL BARRIERS - (INTERNAL TERMINATIONS) (4 X VELOMETER), BENTLY NEVADA:135489-03	In Stock	1	N/A
74600106	MODULE, ABSOLUTE SHAFT	SHAFT ABSOLUTE I/O MODULE WITH - EXTERNAL TERMINATIONS, BENTLY NEVADA:138700-01	In Stock	1	N/A
74600107	MODULE, PROX/SEISMIC	PROX/SEISMIC I/O MODULE WITH INTERNAL TERMINATIONS, BENTLY NEVADA:128229-01	In Stock	1	N/A
74600108	MODULE, I/O	I/O MODULE WITH INTERNAL BARRIERS - (INTERNAL TERMINATIONS), (2 X PROX/ACCEL + 2 X VELOMETER), BENTLY NEVADA:135489-02	In Stock	1	N/A



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74600109	MODULE, I/O	DISCRETE INTERNAL BARRIERS I/O MODULE WITH INTERNAL TERMINATIONS, BENTLY NEVADA:136703-01	In Stock	1	N/A
74600110	MODULE, PROX/SEISMIC	3500/42M PROXIMITOR/SEISMIC MONITOR, BENTLY NEVADA:140734-02	In Stock	1	N/A
74600111	MODULE, DISCRETE I/O	DISCRETE I/O MODULE WITH - EXTERNAL TERMINATIONS, BENTLY NEVADA:133434-01	In Stock	1	N/A
74600112	MODULE, SIGNAL OUTPUT	3500 BUFFERED SIGNAL OUTPUT MODULE, BENTLY NEVADA:147364-01	In Stock	1	N/A
74600113	MODULE, DISCRETE I/O	DISCRETE I/O MODULE WITH - INTERNAL TERMINATIONS, BENTLY NEVADA:133422-01	In Stock	1	N/A
74600114	LAMP, 115VAC PILOT	115VAC PILOT LAMP - VARIOUS SKIDS, RADWELL INTERNATIONAL:DSN130	In Stock	6	N/A
74600115	MODULE, 3500/50	3500/50 MODULE, BENTLY NEVADA:133388-02	In Stock	1	N/A
80900088	BULB, TEMP A DRY	WEATHER STATION DRY BULB TEMP A, VAISALA: HMT3301A08101CGAB200B01CABAA1	In Stock	1	N/A
81200812	R-DIODE	SIEMENS PG:840C41F04	In Stock	12	N/A
81200813	F-DIODE	SIEMENS PG:840C41F03	In Stock	12	N/A
81200814	CAPACITOR ASSEMBLY, RC	SIEMENS PG:153C684	In Stock	1	N/A
92000260	DESICCANT, 4-8 GRADE D	INGERSOLL RAND 50# BAG	In Stock	2	N/A
98200194	DETECTOR, THERMAL	ELECTRICAL PACKAGE THERMAL DETECTOR, KIDDE-FENWAL:27121-160	In Stock	2	N/A
98200196	DETECTOR, THERMAL	MECHANICAL PACKAGE THERMAL DETECTOR, KIDDE-FENWAL:27121-225	In Stock	1	N/A
98200197	DETECTOR, SMOKE	SMOKE DETECTOR, NOTIFIER:FS1-851	In Procurement Process	0	TBD
98200200	DETECTOR, THERMAL	TURBINE ENCLOSURE THERMAL DETECTOR, KIDDE-FENWAL:27121-325	In Stock	4	N/A
54500436	VALVE, SOLENOID	E-CELL SOLENOID VALVE, EMERSON:3022390	In Procurement Process	0	TBD
54900168	VALVE, TEMP CONTROL	STAGE #3 DISC CAVITY TEMPERATURE - CONTROL VALVE, 3", FISHER:A41-1032425AS	In Stock	1	N/A
54900173	VALVE, PRESS REGULATING	LO BEARING PRESSURE REGULATING VALVE, FISHER:44 ACTUATOR 4 BODY 655ED	In Stock	1	N/A
54900193	VALVE, INLET SHUFFLE	INLET SHUTTLE VALVE, SURESITE:4010031	On Order	1	N/A
60101078	TRANSMITTER, GROUND FAULT	SIEMENS PG:153C691G02	In Stock	1	N/A
60101108	THERMOCOUPLE, LUBE OIL TEMP	BEARING LUBE OIL SUPPLY TEMPERATURE - THERMOCOUPLE, PYCO:02-3174 W/16-0049 (TYPE K)	In Stock	1	N/A
60101116	PICK UP, GENERATOR SPEED	TURBINE GENERATOR SPEED PICK UP, BRAUN:ASS08T165C0.5	In Stock	2	N/A
60101130	SWITCH, OIL PUMP PRESSURE	GENERATOR MAIN JACKING OIL PUMP - PRESSURE SWITCH, BARKSDALE:BIT-H32	In Stock	2	N/A
60101136	INDICATOR, LOOP PRESSURE	HYD FLUID CONDITIONING LOOP - PRESSURE INDICATOR, 2-1/2", REXROTH:/400PUA31-10A-4 JIC	In Stock	1	N/A
60101145	SWITCH, FLUID LOW LEVEL	HYD FLUID RESERVOIR LOW LEVEL SWITCH, REXROTH:500PUA31-05 2 SW	In Stock	2	N/A
60101148	SPEED CONTROL, NUMATICS	SPEED CONTROL, BRONZE, NUMATICS A1MN, EMERSON:LWT21254	In Stock	1	N/A
60800398	PREAMPLIFIER, ORP	ORP PREAMPLIFIER, RYAN HERCO:5905-273	On Order	0	31-Dec-2019
61100424	THERMOCOUPLE ASSEMBLY, TYPE J	THERMOCOUPLE ASSEMBLY TYPE J, C11637-07-001	In Procurement Process	0	N/A

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61100425	THERMOCOUPLE, TYPE K	K316G316-0-60-120-1ASP	In Stock	1	N/A
61100438	THERMOCOUPLE, EXHAUST	TURBINE EXHAUST END BEARING - THERMOCOUPLE, DUPLX TYPE K	In Stock	10	N/A
61100441	THERMOCOUPLE, DISC CAVITY	DISC CAVITY THERMOCOUPLE, PYCO:DUPLX TYPE K	In Stock	6	N/A
74201105	CONTACT, BRUSH	TWO LAYER CONTACT BRUSH, SIEMENS:EMT 513-005, 20X8X32 EGSU/AG20	On Order	20	N/A
3900024	THERMOSTAT KIT, WR-90	WR-90 THERMOSTAT KIT, CHROMOLOX:WR-90 KIT	Engineering Required	0	TBD
3900025	HEATER, 12KW OPEN COIL	12KW OPEN COIL HEATER, CHROMOLOX:OCE-12120-210-480V	Engineering Required	0	TBD
3900026	HEATER, 3PH COMFORT	5KW/3PH/480V COMFORT HEATER, CHROMOLOX:HD3D-500 (PCN#520153)	Engineering Required	0	TBD
3900028	ELEMENT, CHROMOLOX	ELEMENT, CHROMOLOX:118-305471-112	Engineering Required	0	TBD
3900029	HEATER, CHROMOLOX	HEATER, CHROMOLOX:1281537	Engineering Required	0	TBD
37900015	CABLE, TITAN IGNITER	TITAN IGNITER CABLE, CENTAUR:115352-1	Engineering Required	0	TBD
43900018	DAMPER, VACUUM CONTROL	LUBE OIL RESERVOIR - VACUUM CONTROL DAMPER, INTEGRAL WITH BLOWER HOUSING, 4"	Engineering Required	0	TBD
54100204	VALVE, 150# CHECK	150# CHECK VALVE, MODEL 210, 6"	Engineering Required	0	TBD
54100205	VALVE, CHECK	CHECK VALVE, MODEL 210, 4"	Engineering Required	0	TBD
54100207	VALVE, PVC CHECK	PVC Y-PATTERN CHECK VALVE, 3", UNITED STATES PLASTIC CORP:5132-030	Engineering Required	0	TBD
54400324	VALVE, AIR RELIEF	INST AIR HEADER RELIEF VALVE, PARKER:6M-6M-RL4A-VTSSMKNK	Engineering Required	0	TBD
54400325	VALVE, PRESSURE RELIEF	POLISHING LOOP PRESSURE RELIEF VALVE, REXROTH:RR00347261	Engineering Required	0	TBD
54600159	VALVE, 1" SW BALL	1" SW BALL VALVE, WORCESTER:K466T5W	Engineering Required	0	TBD
54600160	VALVE, 2" NPT BALL	FEMALE 316 SS FULL PORT BALL VALVE, 2"NPT, MCM:46495K86	Engineering Required	0	TBD
54600161	VALVE, 3/8" THD BALL	3/8" THD BALL VALVE, APOLLO:76-102-01	Engineering Required	0	TBD
54600163	VALVE, 2" PVC BALL	TRUE UNION BALL VALVES, 2", PVC, INDELCO:2TUBV	Engineering Required	0	TBD
54800070	VALVE, BUTTERFLY	BUTTERFLY VALVE, GEAR OPERATED, VELAN TOURQUESEAL: L16-1CP02-ACAA C/W MODEL M15	Engineering Required	0	TBD
54900170	VALVE, TEMP CONTROL	STAGE #2 DISC CAVITY TEMPERATURE - CONTROL VALVE, 4", FISHER:A41-1032425SR	Engineering Required	0	TBD
56200362	GASKET, FLANGE	ROTOR COOLING AIR FILTER COVER - FLANGE GASKET, NATIONAL FILTRATION SYSTEMS:103000002	Engineering Required	0	TBD
56200363	GASKET, CENTAUR	GASKET, CENTAUR:946933C1	Engineering Required	0	TBD
56500208	SEAL, MECHANICAL	MECHANICAL SEAL, EAGLE:ABPN Q1Q1VMG	Engineering Required	0	TBD
58400773	AIR FILTER, SOLAR FINAL	CENTAUR:AAF 515-564-002	Engineering Required	0	TBD
58400776	PRE-FILTER, SOLAR	CENTAUR AMERKLEEN M-80 FILTER	Engineering Required	0	TBD
58400777	FILTER, TITAN LUBE OIL	CENTAUR:38062	In Stock	3	N/A
58400779	FILTER, TITAN FUEL	CENTAUR:11246882	In Stock	6	N/A

Critical Spares List – Gas Turbine Generation

58400781	FILTER, HIGH PRESSURE FUEL	CENTAUR:1125423	In Stock	3	N/A
58400789	FILTER, LUBE OIL	TURBOHYDRAULIC START LUBE OIL FILTER, CENTAUR FAUCET: 038062.10M	Engineering Required	0	TBD
58400796	MICROSWITCH ASSY, FILTER	MICROSWITCH ASSEMBLY- FILTER SKIDS & SOFTENER, PENTAIR:LWT3215	Engineering Required	0	TBD
60101097	SWITCH, VALVE OPEN LIMIT	HP BLEED VALVE OPEN LIMIT SWITCH, WESTLOCK:2007XBY/4SPDT	Engineering Required	0	TBD
60101100	SWITCH, VALVE OPEN LIMIT	LP BLEED VALVE OPEN LIMIT SWITCH, WESTLOCK:2007XBY/6SPDT	Engineering Required	0	TBD
60101105	TOWER, LUBE OIL FILTER	LUBE OIL FILTER TOWER #1 PRESS. MARSH:J4652	Engineering Required	0	TBD
60101118	PICK UP, TORQUE CONVERTER SP	TORQUE CONVERTER SPEED PICK UP, ELECTRO CORP:725833	Engineering Required	0	TBD
60101150	SWITCH, INSULATOR #58-PA	MICRO SWITCH INSULATOR #58-PA, PENTAIR:LWT7696	Engineering Required	0	TBD
60101151	SWITCH, STAGER 48-03	STAGER (110V) SERIES 48-03 - W/HOMING SWITCH, OSMONICS: 48-03	On Order	0	31-Dec-2019
60101161	VALVE, ACTUATOR	ACTUATOR, VALWORX:561055A, ELECT FOR RO INLET VALVE & RINSE VALVE -RO SKID	On Order	0	31-Dec-2019
60101164	SENSOR, VIBRATION	GENERATOR TURBINE END VIBRATION X, BENTLY NEVADA: 3300 SERIES	On Order	0	31-Jan-2019
60101170	SENSOR, VIBRATION	TURBINE EXHAUST END VIBRATION X - RELATIVE SENSOR, BENTLY NEVADA: 3500 SERIES	On Order	0	31-Jan-2019
60101176	SWITCH, TEMPERATURE	ELECTRICAL PACKAGE TEMPERATURE SWITCH, SERIES 54	Engineering Required	0	TBD
60101177	SENSOR, INLINE FLOW	E-CELL INLINE FLOW SENSOR, BURKERT: 3059466	On Order	0	31-Dec-2019
60101180	SWITCH, E-CELL PRESSURE	E-CELL PRESSURE SWITCH, AUTOMATION DIRECT:3039305	Engineering Required	0	TBD
60101181	SENSOR, E-CELL FLOW	E-CELL FLOW SENSOR 8020 SHORT, BURKERT:3033067	On Order	0	31-Dec-2019
60101182	ANALYZER, CONDUCTIVITY	E-CELL CONDUCTIVITY ANALYZER, BURKERT:3059495	On Order	0	31-Dec-2019
60101183	METER, 30-199.9 MV	E-CELL 30-199.9 MV METER, GENERAL ELECTRIC: 3038073	On Order	0	31-Dec-2019
60101186	TRANSMITTER, PRESSURE	E-CELL PRESSURE TRANSMITTER, BURKERT:3059497	On Order	0	31-Dec-2019
60101193	TRANSMITTER, PRESSURE	COMBUSTOR SHELL PRESS TRANSMITTER, SIEMENS:7MF4233-1HA10-1AC1-Z+B21+Y01+Y15	Engineering Required	0	TBD
61100430	RTD, AIR TEMPERATURE	GENERATOR EXCITER END COLD AIR TEMPERATURE RTD, 100 OHM PLATINUM, TMG GERBERG	Engineering Required	0	TBD
61100442	GAUGE, DIAL PRESSURE	DIAL PRESSURE GAUGE, ECODYNE:2172-1067	Engineering Required	0	TBD
61100443	VALVE, CONTROL	STAGE 3 TEMPERATURE CONTROL VALVE - I/P W/POSITIONER, FISHER:DVC5030	Engineering Required	0	TBD
61100444	VALVE, CONTROL	STAGE 2 TEMPERATURE CONTROL VALVE - I/P W/POSITIONER, VRC:VE700GT1	Engineering Required	0	TBD
61100445	TRANSMITTER, OIL PRESSURE	BEARING OIL PRESSURE TRANSMITTER, SIEMENS: 7MF4033-1CA10-1AC7-Z+B21+A02+Y01+Y21+Y15+Y16	Engineering Required	0	TBD
61100447	INDICATOR, OIL LEVEL	LUBE OIL RESERVOIR LEVEL INDICATOR, GEMS:806601	Engineering Required	0	TBD
61100448	THERMOCOUPLE, TEMPERATURE	STARTING PACKAGE MOTOR STATOR - TEMPERATURE THERMOCOUPLE, S102629PD-120T305296	Engineering Required	0	TBD
61100449	THERMOCOUPLE, TEMPERATURE	STARTING PACKAGE MOTOR FORWARD - BEARING TEMPERATURE T/C , S16820PD-300Z96	Engineering Required	0	TBD
61100459	GAUGE, PRESSURE	DIFFERENTIAL PRESSURE GAUGE - COMPRESSOR INSTR AIR COALESCING FILTER, HEADLINE FILTERS:DPP-975	Engineering Required	0	TBD

Critical Spares List – Gas Turbine Generation

61100468	THERMOSTAT, ACH1		ELECTRICAL PACKAGE ACH1 THERMOSTAT, HH01AD045	Engineering Required	0	TBD
65000437	ACTUATOR, AUMA		ACTUATOR, AUMA, MODEL:SA10.2-216/GS200.3/GZ200.3	Engineering Required	0	TBD
74600098	SWITCH, AUXILIARY		AUX SWITCH, SIEMENS:A01JD64	In Stock	16	TBD
88600152	OIL COMPRESSOR		ALL SEASON SELECT OIL, INGERSOLL RAND 38436721	In Stock	16	N/A
60101192	ACTUATOR, DEMAND CONTROL		INLET GUIDE VALVE HYD DEMAND CONTROL - ACTUATOR, MOOG:85-616C101	Engineering Required	0	TBD
TBD	KIT, E-CELL CLAMP SET		KIT, E-CELL CLAMP SET: 3033064	In Procurement Process	0	TBD
TBD	PLC-AB		PLC-AB, ANLG, 4-20, MA, 4IN, 1762-IFA: 1227751	On Order	0	31-Dec-2019
TBD	VALVE, PP CHECK		VALVE-CHK, PP, 2.50/DN65, WF, CL: 3060070	In Procurement Process	0	TBD
TBD	HEAT EXCHANGER		HEAT EXCH, CG601F-115WL, NOREN, 115VAC:3060441	In Procurement Process	0	TBD
TBD	SENSOR, CONDUCTIVITY		SENSOR-COND, PVDF, 0.01CEL, BUR, 8220: 3059495	On Order	0	31-Dec-2019
TBD	VALVE, DIAPHRAM		VALVE-DIAPH, PVC, 1.50, MAN, SOC, TU, GF, EPDM: 3059522	In Procurement Process	0	TBD
TBD	VALVE, DIAPHRAM		VALVE-DIAPH, PVC, 0.50, MAN, SOC, TU, GF, EPDM: 1257965	In Procurement Process	0	TBD
TBD	SWITCH, ETHERNET, 5-PORT		SWITCH-ETHERNET, 5-PORT, RJ45, DIN RAIL, PC: 3029118	In Procurement Process	0	TBD
TBD	FUSE, 1P TYPE CC, AB		TERMINAL-FUSE, 1P TYPE CC, AB: 1235396	In Procurement Process	0	TBD
TBD	FUSE, LED, 10-75VAC/VDC		TERMINAL-FUSE, LED, 10-75VAC/VDC, 1492-H5: 1152328	In Procurement Process	0	TBD
TBD	FUSE-DELAY, 600V, CLASS CC, 6A		FUSE-DELAY, 600V, CLASS CC, 6A, BUS: 3054531	In Procurement Process	0	TBD
TBD	FUSE-BLOCK, 600V, 100A		FUSE-BLOCK, 600V, 100A, MODULAR, BUS: 3020468	In Procurement Process	0	TBD
TBD	FUSE-FAST, 700V, 80A		FUSE-FAST, 700V, 80A, BUS: 3010595	In Procurement Process	0	TBD
TBD	FUSE-DELAY, 600V, CLASS CC, 3.5A		FUSE-DELAY, 600V, CLASS CC, 3.5A, LP, CC, BUS: 3126308	In Procurement Process	0	TBD
TBD	FUSE-DELAY, 600V, CLASS CC, 2A		FUSE-DELAY, 600V, CLASS CC, 2A, BUS: 3060753	In Procurement Process	0	TBD
TBD	FUSE-DELAY, 600V, CLASS CC, 4A		FUSE-DELAY, 600V, CLASS CC, 4A, LP, CC-4, BUS: 3060754	In Procurement Process	0	TBD
TBD	FUSE-FAST, 250V, CERAMIC, 1A		FUSE-FAST, 250V, CERAMIC, 1A, BUS: 3055154	In Procurement Process	0	TBD
TBD	FUSE-DELAY, 600V, CLASS CC, 1A		FUSE-DELAY, 600V, CLASS CC, 1A, BUS: 3029658	In Procurement Process	0	TBD
TBD	FUSE-BLOCK, 690V, MIDGET, MERSEN		FUSE-BLOCK, 690V, MIDGET, MERSEN, USM1: 3146420	In Procurement Process	0	TBD
TBD	GASKET-FLG, FULL, EPDM, 2.50X0.12, 150		GASKET-FLG, FULL, EPDM, 2.50X0.12, 150: 3020305	In Procurement Process	0	TBD
TBD	GASKET, EPDM, MAXI, D-FLOW		GASKET, EPDM, MAXI, D-FLOW: 3041776	In Procurement Process	0	TBD
TBD	GASKET, EPDM, C-FLOW		GASKET, EPDM, C-FLOW: 3041773	In Procurement Process	0	TBD
TBD	VALVE, NEEDLE		VALVE-NEEDLE, PVC, 0.25, THD, CL, HW: 1258167	In Procurement Process	0	TBD
TBD	PLC-GE		PLC-GE, QP+, 7" COLOR, 24VDC, IC755CSW07CDA: 3134672	On Order	0	31-Dec-2019

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TBD	PLC-AB	PLC-AB,DIGITAL,24VDC,8 IN,1762-IQ8: 1224240	On Order	0	31-Dec-2019
TBD	PLC-AB	PLC-AB,20DI/12DO/4AI/4AO,1766-L32BXBA: 3060729	On Order	0	31-Dec-2019
TBD	XFMR-CONTROL	XFMR-CNTRL,230/575,115-50/60,500VA,SQ-D: 3060802	On Order	0	31-Dec-2019
TBD	POWER SUPPLY, 24VDC	POWER-SUP,PHOENIX,TRIO,24VDC,5A: 3037802	On Order	0	31-Dec-2019
TBD	VALVE, PRESSURE REGULATING	VALVE-REG,PR,PVC,1.00,TU,582,GF: 3144847	In Procurement Process	0	TBD
TBD	SWITCH, PUSH BUTTON	SWITCH-P-B,IEC,INC,MAN,BLK,800FP: 3007466	On Order	0	31-Dec-2019
TBD	SWITCH, PUSH PULL	SWITCH-PUSH PULL,24VDC,IEC,MUSHRM,IL,RED: 3006380	On Order	0	31-Dec-2019
TBD	RELAY, 3PDT, 24VDC,10A	RELAY,3PDT,24VDC,10A,700-HA33224: 1152099	On Order	0	31-Dec-2019
TBD	RELAY,SPDT,24VDC,10A	RELAY,SPDT,24VDC,10A,FINDER,40.31: 3040656	On Order	0	31-Dec-2019
TBD	VALVE, RELIEF	VALVE-RELIEF,316,1/4"X1/4"MNPT,1/3-PSI: 3142692	In Procurement Process	0	TBD
TBD	KIT, SOLENOID VALVE	KIT-VALVE,SOL,4W,STACK,2,24VDC,NUMATICS: 3135876	In Procurement Process	0	TBD
TBF	E-CELL EDI STACKS	E-CELL EDI STACKS	On Order	0	31-Dec-2019
TBD	SEAL, MECHANICAL	SEAL MECHANICAL FOR FORWARDING PUMPS: 98511844	In Procurement Process	0	TBD
TBD	SEAL, MECHANICAL	SEAL MECHANICAL FOR RO PUMP: 9644664	In Procurement Process	0	TBD
TBD	SEAL, O-RING	SEAL ORING QUAD E8 VESSELS - RO SKID: 6100442MIK	In Procurement Process	0	TBD
TBD	SEAL, O-RING	SEAL O-RING PWT - RO SKID: SG02051195	In Procurement Process	0	TBD
TBD	FLOW SENSOR, TURBINE	FLOW SENSOR TURBINE W/ CABLE - VARIOUS SKIDS: CW237	On Order	0	31-Dec-2019
TBD	PUMP, CHEMICAL INJECTION	BLUEWHITE CHEMICAL INJECTION PUMP: A1N00F-4T	In Procurement Process	0	TBD
TBD	SOFT STARTER	SOFT STARTER FOR RO: TLOATS2222D4756U	In Procurement Process	0	TBD
TBD	PLC, PREPROGRAMMED- RO SKID	PREPROGRAMMED PLC - RO SKID: DO-06DR-RO	On Order	0	31-Dec-2019
TBD	VALVE, CHECK 2", PVC, Y-PATTERN	2" PVC Y-PATTERN CHECK VALVE: 5132-020	In Procurement Process	0	TBD
TBD	SWITCH, 3-POSITION, 22MM	3-POSITION SWITCH 22MM: GCX3320-22	On Order	0	31-Dec-2019
TBD	SWITCH, 2-POSITION, 22MM	2-POSITION SWITCH 22MM: GCX3300	On Order	0	31-Dec-2019
TBD	COLOR TOUCHSCREEN INTERFACE, 6"	PREPROGRAMMED 6" COLOR TOUCHSCREEN OPERATOR INTERFACE - PERMEATE PUMP SKID: WSEA9-PERM	On Order	0	31-Dec-2019
TBD	PLC, PREPROGRAMMED - PERMATE SKID	PREPROGRAMMED PLC - PERMEATE PUMP SKID: DO-06DR-D-PERM	On Order	0	31-Dec-2019
TBD	PLC, PREPROGRAMMED - RAW WATER SKID	PREPROGRAMMED PLC - RAW WATER PUMP SKID: DO-06DR-RW	On Order	0	31-Dec-2019
TBD	COLOR TOUCHSCREEN INTERFACE, 6"	PREPROGRAMMED 6" COLOR TOUCHSCREEN OPERATOR INTERFACE - RAW WATER PUMP SKID: WSEA9-RW	On Order	0	31-Dec-2019
TBD	COLOR TOUCHSCREEN INTERFACE, 8"	PREPROGRAMMED 8" COLOR TOUCHSCREEN OPERATOR INTERFACE - REVERSE OSMOSIS SKID: WSEA9-8RO	On Order	0	31-Dec-2019
TBD	COLOR TOUCHSCREEN INTERFACE, 10"	PREPROGRAMMED 10" COLOR TOUCHSCREEN OPERATOR INTERFACE - REVERSE OSMOSIS SKID: WSEA9-10 RO	On Order	0	31-Dec-2019

Critical Spares List – Gas Turbine Generation

TBD	CONDUCTIVITY MODULE	CONDUCTIVITY MODULE FOR MULTIFUNCTION MONITOR - RO: 5908.494	On Order	0	31-Dec-2019
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# Appendix G

## Critical Spares Status Listing – Hydraulic Generation





Critical Spare Component	Stock Status	Comments
BDE - ACCUMULATOR TANK Level switch	In Stock	
BDE - ACCUMULATOR TANK Pressure switch	In Stock	
BDE - ADAPTER, REMOTE I/O	In Stock	
BDE - ADAPTER, REMOTE I/O	In Stock	
BDE - ADAPTER, REMOTE I/O	In Stock	
BDE - ADAPTER, REMOTE I/O	In Stock	
BDE - BACKPLANE, 10 SLOT MODICON	In Stock	
BDE - BACKPLANE, 10 SLOT MODICON	In Stock	
BDE - BACKPLANE, 10 SLOT MODICON	In Stock	
BDE - BACKPLANE, 10 SLOT MODICON	In Stock	
BDE - BDE - PUMP, OIL IMO A3DB-275	In Stock	
BDE - BEARING KIT, IR 32127474	In Stock	
BDE - BEARING KIT, IR 32127474	In Stock	
BDE - BELT, V IR 95100160	In Stock	
BDE - BELT, V IR 95100160	In Stock	
BDE - BELT, V IR 95100558	In Stock	
BDE - BELT, V IR 95100558	In Stock	
BDE - BOARD ASSY, IRD 24144	In Stock	
BDE - BOARD ASSY, IRD 24144	In Stock	
BDE - CABLE, SERIES 925 RESOLVER	In Stock	
BDE - CABLE, SERIES 925 RESOLVER	In Stock	
BDE - CARD, IRD 31649	In Stock	
BDE - CARD, IRD 31649	In Stock	
BDE - CARD, PRINTED CIRCUIT	In Stock	
BDE - CARD, PRINTED CIRCUIT	In Stock	
BDE - COIL, AB CC236	In Stock	
BDE - COIL, AB CC236	In Stock	
BDE - COIL, SULL 250018-971	In Stock	
BDE - CONTACT, CONTACTOR-TYPE DG-1	In Stock	
BDE - CONTACT, CONTACTOR-TYPE DG-1	In Stock	
BDE - CREEP DETECTOR ASSY, 129 VCD	In Stock	
BDE - CREEP DETECTOR ASSY, 129 VCD	In Stock	
BDE - DISCONNECT SWITCH 29-1 - Complete Unit	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE200130R0001	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE205011R0001	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE205012R0001	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE205014R0001	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE300661R0001	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE300686R0001	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE300690R0001	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE300698R0001	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE300766R0001	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE305043R0001	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - EXCITATION CONTROLS - CARD, ABB HIEE305069R0001	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE30598R1	In Stock	
BDE - EXCITATION CONTROLS - CARD, ABB HIEE401481RD001	In Stock	
BDE - EXCITATION CONTROLS - COIL, ABB HIER464920P1	In Stock	
BDE - EXCITATION CONTROLS - Field Flashing Resistor	In Stock	
BDE - EXCITATION CONTROLS - Field Flashing Resistor	In Stock	
BDE - EXCITATION CONTROLS - MAINBOARD, ABB HIER465176R22	In Stock	
BDE - EXCITATION CONTROLS - POWER SUPPLY,TRACO HIER46651-	In Stock	
BDE - EXCITATION CONTROLS - POWER SUPPLY,TRACO HIER46651-	In Stock	
BDE - EXCITATION CONTROLS - RESISTOR, FIELD DISCHARGE	In Stock	
BDE - EXCITATION CONTROLS - SHUNT, ABB UXAB269330R909	In Stock	
BDE - EXCITATION CONTROLS - VARISTOR, ABB 3ACD5245A003	In Stock	
BDE - Exciter POWER ELECTRONICS - BRIDGE, ABB S00772	In Stock	
BDE - Exciter POWER ELECTRONICS - FAN ASSY, ABB 500773	In Stock	
BDE - Exciter POWER ELECTRONICS - FUSE, ABB 6, 6URD32TTF0800	In Stock	
BDE - Exciter POWER ELECTRONICS - Pulse Transformers	In Stock	
BDE - Exciter POWER ELECTRONICS - THYRISTOR, ABB 5STP27F1200	In Stock	
BDE - FIELD BREAKER Q02 - PANEL EE - ARC-CHUTE, ABB UXAB269399R012	In Stock	
BDE - FIELD BREAKER Q02 - PANEL EE - BREAKER, ABB HIER466757P2331 (entire unit)	In Stock	
BDE - FIELD BREAKER Q02 - PANEL EE - CONTACT, ABB UXAB239299R0003	In Stock	
BDE - FIELD BREAKER Q02 - PANEL EE - CONTACT, ABB UXAB239260R002	In Stock	
BDE - FIELD BREAKER Q02 - PANEL EE - CONTACT, ABB UXAB269399R032	In Stock	
BDE - FIELD BREAKER Q02 - PANEL EE - SHUNT, ABB UXAB269350R909	In Stock	
BDE - FILTER, AIR (ELEMENT ONLY)	In Stock	
BDE - FILTER, COOLANT (ELEMENT ONLY)	In Stock	
BDE - GAS, INERGEN (350F3)	In Stock	
BDE - GAS, INERGEN (425F3)	In Stock	
BDE - GASKET KIT, IR X1453T47	In Stock	
BDE - GASKET SET, IR 30423339	In Stock	
BDE - GASKET SET, IR 30423339	In Stock	
BDE - GASKET, FLEXMASTER 250007-559	In Stock	
BDE - GASKET, SULL 040517	In Stock	
BDE - GATE HOIST - BAY D'ESPOIR - ST - Remote I/O Adapter	In Stock	
BDE - GENERATOR - CREEP DETECTOR ASSY, 129 VCD	In Stock	
BDE - GENERATOR - PLATES, BRAKE (24 PER SET)	In Stock	
BDE - GENERATOR - SWITCH, WOODWARD 8935-139	In Stock	
BDE - Generator SLIPRING/BRUSH RIGGING - Brush Holders	In Stock	
BDE - Generator SLIPRING/BRUSH RIGGING - Carbon Brushes	In Stock	
BDE - Generator SLIPRING/BRUSH RIGGING - Slip Ring	In Stock	
BDE - GOVERNOR - BEARING, DASHPOT LINK	In Stock	
BDE - GOVERNOR - BRACKET, WOODWARD 11002-57	In Stock	
BDE - GOVERNOR - BRACKET, WOODWARD 91588	In Stock	
BDE - GOVERNOR - BUSHING, DASHPOT - LARGE	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - GOVERNOR - BUSHING, DASHPOT - SMALL	In Stock	
BDE - GOVERNOR - BUSHING, PILOT VALVE	In Stock	
BDE - GOVERNOR - BUSHING, SNAP ACTION	In Stock	
BDE - GOVERNOR - BUSHING, WW 11002-65	In Stock	
BDE - GOVERNOR - CABLE, AIRCRAFT 1/4 187083	In Stock	
BDE - GOVERNOR - CLIP, WW 11002-16	In Stock	
BDE - GOVERNOR - COIL, DASHPOT	In Stock	
BDE - GOVERNOR - COIL, PARTIAL SHUTDOWN RESET	In Stock	
BDE - GOVERNOR - COIL, SHUTDOWN SOLENOID	In Stock	
BDE - GOVERNOR - COIL, SHUTDOWN SOLENOID 65SD	In Stock	
BDE - GOVERNOR - COIL, WW 202132	In Stock	
BDE - GOVERNOR - CONTACT, CONTACTOR-TYPE DG-	In Stock	
BDE - GOVERNOR - DASHPOT, WW 161314	In Stock	
BDE - GOVERNOR - DIODE, WW 202891	In Stock	
BDE - GOVERNOR - DISC, RELIEF VALVE	In Stock	
BDE - GOVERNOR - DISC, UNLOADER	In Stock	
BDE - GOVERNOR - FILTER, HYD 932633Q	In Stock	
BDE - GOVERNOR - GASKET KIT, WOODWARD 8926-137	In Stock	
BDE - GOVERNOR - GASKET, WOODWARD 1327-816	In Stock	
BDE - GOVERNOR - GASKET, WOODWARD 206317	In Stock	
BDE - GOVERNOR - LEVER, CONNECTING LOWER	In Stock	
BDE - GOVERNOR - LEVER, LOWER FLOATING	In Stock	
BDE - GOVERNOR - LEVER, UPPER FLOATING	In Stock	
BDE - GOVERNOR - LINK, WOODWARD 070346	In Stock	
BDE - GOVERNOR - LOCKWASHER, BEARING	In Stock	
BDE - GOVERNOR - MOTOR ASSY, C/W SHAFT & GEAR	In Stock	
BDE - GOVERNOR - MOTOR ASSY, GATE LIMIT	In Stock	
BDE - GOVERNOR - MOTOR, VIBRATING OIL	In Stock	
BDE - GOVERNOR - MOTOR, GOVERNOR SPEED 28 VOLT	In Stock	
BDE - GOVERNOR - MOTOR, SYNCHRONIZING	In Stock	
BDE - GOVERNOR - PIN, BALLARM	In Stock	
BDE - GOVERNOR - PIN, DASHPOT	In Stock	
BDE - GOVERNOR - PIN, LOWER DRIVE	In Stock	
BDE - GOVERNOR - PIN, PIVOT	In Stock	
BDE - GOVERNOR - PIN, WOODWARD 11002-71	In Stock	
BDE - GOVERNOR - PIN, WOODWARD 11002-75	In Stock	
BDE - GOVERNOR - PLUNGER, SNAP ACTION	In Stock	
BDE - GOVERNOR - POTENTIOMETER, 12500H 0.24A	In Stock	
BDE - GOVERNOR - PUMP, OIL IMO A3DB-275	In Stock	
BDE - GOVERNOR - RETAINER, SWITCH	In Stock	
BDE - GOVERNOR - RING, SNAP (PILOT SERVO PLUG)	In Stock	
BDE - GOVERNOR - ROTOR, BALL HEAD MOTOR	In Stock	
BDE - GOVERNOR - SOLENOID, 125 Vdc 211E	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - GOVERNOR - SOLENOID,125 Vdc 211E	In Stock	
BDE - GOVERNOR - SPRING, PILOT VALVE LINK	In Stock	
BDE - GOVERNOR - SPRING, RELIEF	In Stock	
BDE - GOVERNOR - SPRING, UNLOADER	In Stock	
BDE - GOVERNOR - STATOR, BALL HEAD MOTOR	In Stock	
BDE - GOVERNOR - SWITCH, PRESS OIL ALARM	In Stock	
BDE - GOVERNOR SPEED GENERATOR - BALLARM, SPEED SWITCH	In Stock	
BDE - GOVERNOR SPEED GENERATOR - BEARING, PMG P/N Z995205	In Stock	
BDE - GOVERNOR SPEED GENERATOR - BEARING, SPEED SIGNAL	In Stock	
BDE - GOVERNOR SPEED GENERATOR - BEARING, WW 111006	In Stock	
BDE - GOVERNOR SPEED GENERATOR - BEARING, WW 1800125	In Stock	
BDE - GOVERNOR SPEED GENERATOR - BUSHING, OILITE OVERSPEED SWITCH ASSEMBLY	In Stock	
BDE - GOVERNOR SPEED GENERATOR - BUSHING, URETHANE LOWER D	In Stock	
BDE - GOVERNOR SPEED GENERATOR - BUSHING, URETHANE UPPER D	In Stock	
BDE - GOVERNOR SPEED GENERATOR - PIN, BALLARM	In Stock	
BDE - GOVERNOR SPEED GENERATOR - PIN, DOWEL - SPEED SWITCH	In Stock	
BDE - GOVERNOR SPEED GENERATOR - PIN, ROCKER ARM	In Stock	
BDE - GOVERNOR SPEED GENERATOR - PIN, TAPERED	In Stock	
BDE - GOVERNOR SPEED GENERATOR - PLATE, MOUNTING - MERCURY	In Stock	
BDE - GOVERNOR SPEED GENERATOR - RING, ROTOR	In Stock	
BDE - GOVERNOR SPEED GENERATOR - SPRING, SPEED SWITCH	In Stock	
BDE - GOVERNOR SPEED GENERATOR - STATOR, P.M.G.	In Stock	
BDE - GUIDE BEARING SEGMENTS - Bearing Segments	In Stock	
BDE - HEADCOVER ASSEMBLY - UNIT 1 - BUSHING, UPPER HEAD COVER P003	In Stock	
BDE - HEADCOVER ASSEMBLY - UNIT 1 - BUSHING, UPPER WICKET	In Stock	
BDE - Heat Sink Exciter	In Stock	
BDE - INTAKE GATE - BACKPLANE, 6 SLOT MODICON	In Stock	
BDE - INTAKE STRUCTURE NO. 1 - TRANSMITTER, PRESS 0-6MH20	In Stock	
BDE - ISOLATED PHASE BUS - CT 50/51	In Stock	
BDE - ISOLATED PHASE BUS - Surge Capacitor	In Stock	
BDE - ISOLATED PHASE BUS - Surge Capacitor	In Stock	
BDE - ISOLATED PHASE BUS - XFMR, CT 1000	In Stock	
BDE - ISOLATED PHASE BUS - XFMR, CT 13.8 kV	In Stock	
BDE - ISOLATED PHASE BUS - XFMR, CT 30332313	In Stock	
BDE - ISOLATED PHASE BUS - XFMR, CT 800:5	In Stock	
BDE - ISOLATED PHASE BUS - XFMR, PT 14400 kV	In Stock	
BDE - METER, TEMP DIGITAL	In Stock	
BDE - METER, TEMP DIGITAL	In Stock	
BDE - MODULE, ANALOG QUANTUM	In Stock	
BDE - MODULE, ANALOG QUANTUM	In Stock	
BDE - MODULE, ANALOG QUANTUM	In Stock	
BDE - MODULE, ANALOG QUANTUM	In Stock	
BDE - MODULE, CPU MODICON	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - MODULE, CPU MODICON	In Stock	
BDE - MODULE, CPU MODICON	In Stock	
BDE - MODULE, CPU MODICON	In Stock	
BDE - MODULE, DISCRETE IN	In Stock	
BDE - MODULE, DISCRETE IN	In Stock	
BDE - MODULE, DISCRETE IN	In Stock	
BDE - MODULE, DISCRETE IN	In Stock	
BDE - MODULE, DISCRETE OUT	In Stock	
BDE - MODULE, DISCRETE OUT	In Stock	
BDE - MODULE, DISCRETE OUT	In Stock	
BDE - MODULE, DISCRETE OUT	In Stock	
BDE - MODULE, DISCRETE OUT	In Stock	
BDE - MODULE, ETHERNET QUANTUM	In Stock	
BDE - MODULE, ETHERNET QUANTUM	In Stock	
BDE - MODULE, ETHERNET QUANTUM	In Stock	
BDE - MODULE, ETHERNET QUANTUM	In Stock	
BDE - MODULE, GPS QUANTUM	In Stock	
BDE - MODULE, GPS QUANTUM	In Stock	
BDE - MODULE, GPS QUANTUM	In Stock	
BDE - MODULE, GPS QUANTUM	In Stock	
BDE - MODULE, HOT STANDBY	In Stock	
BDE - MODULE, HOT STANDBY	In Stock	
BDE - MODULE, HOT STANDBY	In Stock	
BDE - MODULE, HOT STANDBY	In Stock	
BDE - MODULE, INTERFACE PLC	In Stock	
BDE - MODULE, INTERFACE PLC	In Stock	
BDE - MODULE, INTERFACE PLC	In Stock	
BDE - MODULE, INTERFACE PLC	In Stock	
BDE - MODULE, INTERFACE PLC	In Stock	
BDE - MODULE, RACK FILLER	In Stock	
BDE - MODULE, RACK FILLER	In Stock	
BDE - MODULE, RACK FILLER	In Stock	
BDE - MODULE, RACK FILLER	In Stock	
BDE - MODULE, RELAY OUT	In Stock	
BDE - MODULE, RELAY OUT	In Stock	
BDE - MODULE, RELAY OUT	In Stock	
BDE - MODULE, RELAY OUT	In Stock	
BDE - MONITOR, 15" TOUCHSCREEN	In Stock	
BDE - MONITOR, 15" TOUCHSCREEN	In Stock	
BDE - MOTOR, ELECT 15 HP 575 V	In Stock	
BDE - MOTOR, ELECT 15 HP 575 V	In Stock	
BDE - MOTOR, SYNCHRONIZING	In Stock	
BDE - MOTOR, SYNCHRONIZING	In Stock	
BDE - NEUTRAL GROUND TRANSFORMER	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - PACKING, V TYPE 2-EASY	In Stock	
BDE - PACKING, V TYPE 2-EASY	In Stock	
BDE - PACKING, V TYPE 2-EASY	In Stock	
BDE - PACKING, V TYPE 2-EASY	In Stock	
BDE - PANEL STATION SERVICE - PH #2 - ACB	In Stock	
BDE - PEN ARM MOVEMENT ASSY, RECORDR	In Stock	
BDE - PEN ARM MOVEMENT ASSY, RECORDR	In Stock	
BDE - PENSTOCK NO. 1 - TRANSMITTER, PRESS 0-375	In Stock	
BDE - PENSTOCK NO. 2 - TRANSMITTER, PRESS 0-375	In Stock	
BDE - PENSTOCK NO. 3 - TRANSMITTER, PRESS 0-375	In Stock	
BDE - PENSTOCK NO. 4 - TRANSMITTER, PRESS 0-375	In Stock	
BDE - PICK-UP, MAGNETIC 5430-929	In Stock	
BDE - PICK-UP, MAGNETIC 5430-929	In Stock	
BDE - PICK-UP, NON-CONTACT	In Stock	
BDE - PICK-UP, NON-CONTACT	In Stock	
BDE - PICK-UP, SPEED SENSING	In Stock	
BDE - PICK-UP, SPEED SENSING	In Stock	
BDE - Piston D/S	In Stock	
BDE - Piston U/S	In Stock	
BDE - PISTON, PIN ASSY PE#32054504	In Stock	
BDE - PISTON, PIN ASSY PE#32054538	In Stock	
BDE - PISTON/PIN ASSY, IR 30215222	In Stock	
BDE - PISTON/PIN ASSY, IR 30215222	In Stock	
BDE - PISTON/PIN ASSY, IR 30215438	In Stock	
BDE - PISTON/PIN ASSY, IR 30215438	In Stock	
BDE - PISTON/PIN ASSY, IR 30292460	In Stock	
BDE - PISTON/PIN ASSY, IR 30292460	In Stock	
BDE - PLC, Model Quantum- Modicon - ADAPTER, REMOTE I/O	In Stock	
BDE - PLC, Model Quantum- Modicon - BACKPLANE, 10 SLOT MODICON	In Stock	
BDE - PLC, Model Quantum- Modicon - MODULE, ANALOG QUANTUM	In Stock	
BDE - PLC, Model Quantum- Modicon - MODULE, CPU MODICON	In Stock	
BDE - PLC, Model Quantum- Modicon - MODULE, DISCRETE IN	In Stock	
BDE - PLC, Model Quantum- Modicon - MODULE, DISCRETE OUT	In Stock	
BDE - PLC, Model Quantum- Modicon - MODULE, ETHERNET QUANTUM	In Stock	
BDE - PLC, Model Quantum- Modicon - MODULE, GPS QUANTUM	In Stock	
BDE - PLC, Model Quantum- Modicon - MODULE, HOT STANDBY	In Stock	
BDE - PLC, Model Quantum- Modicon - MODULE, INTERFACE PLC	In Stock	
BDE - PLC, Model Quantum- Modicon - MODULE, RACK FILLER	In Stock	
BDE - PLC, Model Quantum- Modicon - MODULE, RELAY OUT	In Stock	
BDE - PLC, Model Quantum- Modicon - POWER SUPPLY, 125-24 Vdc	In Stock	
BDE - PLC, Model Quantum- Modicon - POWER SUPPLY, 125 Vdc	In Stock	
BDE - PLC, Model Quantum- Modicon - POWER SUPPLY, 125 Vdc 8 A	In Stock	
BDE - PLC, Model Quantum- Modicon - POWER SUPPLY, 24 Vdc	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - PLC,Model Quantum- Modicon - REMOTE I/O HEAD, MODICON	In Stock	
BDE - POTENTIOMETER, 1250 OH 0.24 A	In Stock	
BDE - POTENTIOMETER, 1250 OH 0.24 A	In Stock	
BDE - POTENTIOMETER, 1250 OH 0.24 A	In Stock	
BDE - POTENTIOMETER, 1250 OH 0.24 A	In Stock	
BDE - POTENTIOMETER, 1K OH .244 A	In Stock	
BDE - POTENTIOMETER, 1K OH .244 A	In Stock	
BDE - POTENTIOMETER, 25 W 50 OHMS	In Stock	
BDE - POTENTIOMETER, 25 W 50 OHMS	In Stock	
BDE - POTENTIOMETER, SPEED	In Stock	
BDE - POTENTIOMETER, SPEED	In Stock	
BDE - POWER SUPPLY, 125-24 Vcd	In Stock	
BDE - POWER SUPPLY, 125-24 Vdc	In Stock	
BDE - POWER SUPPLY, 125-24 Vdc	In Stock	
BDE - POWER SUPPLY, 125-24 Vdc	In Stock	
BDE - POWER SUPPLY, 125-24 Vdc	In Stock	
BDE - POWER SUPPLY, 125-24 Vdc	In Stock	
BDE - POWER SUPPLY, 125-24 Vdc	In Stock	
BDE - POWER SUPPLY, 125 Vdc	In Stock	
BDE - POWER SUPPLY, 125 Vdc	In Stock	
BDE - POWER SUPPLY, 125 Vdc	In Stock	
BDE - POWER SUPPLY, 125 Vdc	In Stock	
BDE - POWER SUPPLY, 125 Vdc 8 A	In Stock	
BDE - POWER SUPPLY, 125 Vdc 8 A	In Stock	
BDE - POWER SUPPLY, 125 Vdc 8 A	In Stock	
BDE - POWER SUPPLY, 125 Vdc 8 A	In Stock	
BDE - POWER SUPPLY, 125 Vdc 8 A	In Stock	
BDE - POWER SUPPLY, 125 Vdc 8 A	In Stock	
BDE - POWER SUPPLY, 24 Vdc	In Stock	
BDE - POWER SUPPLY, 24 Vdc	In Stock	
BDE - POWER SUPPLY, 24 Vdc	In Stock	
BDE - POWER SUPPLY, 24 Vdc	In Stock	
BDE - POWER SUPPLY, 24 Vdc	In Stock	
BDE - POWER SUPPLY, 24 Vdc	In Stock	
BDE - POWER SUPPLY, 24 Vdc	In Stock	
BDE - POWER SUPPLY, 24 Vdc	In Stock	
BDE - POWER SUPPLY, 300 W	In Stock	
BDE - POWER SUPPLY, 300 W	In Stock	
BDE - POWER SUPPLY, 48 Vdc 240 W	In Stock	
BDE - POWER SUPPLY, 48 Vdc 240 W	In Stock	
BDE - POWER SUPPLY, IRD PCB 29128	In Stock	
BDE - POWER SUPPLY, IRD PCB 29128	In Stock	
BDE - PROBE SYSTEM, CAPACITANCE	In Stock	
BDE - PROBE SYSTEM, CAPACITANCE	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - PROBE, CAPACITANCE	In Stock	
BDE - PROBE, CAPACITANCE	In Stock	
BDE - PROCESSOR, MICRO-CENTRAL	In Stock	
BDE - PROCESSOR, MICRO-CENTRAL	In Stock	
BDE - PROCESSOR, PLC	In Stock	
BDE - PROCESSOR, PLC	In Stock	
BDE - PROCESSOR, PROG C/W 1772-MJ	In Stock	
BDE - PROCESSOR, PROG C/W 1772-MJ	In Stock	
BDE - PROTRACTOR, ANSUL 423958	In Stock	
BDE - PUMP, OIL IMO A3DB-275	In Stock	
BDE - RECTIFYING TRANSFORMER - Full Unit	In Stock	
BDE - RECTIFYING TRANSFORMER - Insulating Fluid	In Stock	
BDE - REGULATOR KIT, SULL 250019-453	In Stock	
BDE - RELAY, ADJUSTABLE ac V SENSOR	In Stock	
BDE - RELAY, ADJUSTABLE ac V SENSOR	In Stock	
BDE - RELAY, GROUND VOLTAGE	In Stock	
BDE - RELAY, INSTANTANEOUS CURRENT	In Stock	
BDE - RELAY, INSTANTANEOUS CURRENT	In Stock	
BDE - RELAY, INSTANTANEOUS CURRENT	In Stock	
BDE - RELAY, LEVEL CONTROL #1001	In Stock	
BDE - RELAY, OVERCURRENT 1600 A 3POLE	In Stock	
BDE - RELAY, UNDERVOLTAGE 125 Vac	In Stock	
BDE - REMOTE I/O HEAD, MODICON	In Stock	
BDE - REMOTE I/O HEAD, MODICON	In Stock	
BDE - REMOTE I/O HEAD, MODICON	In Stock	
BDE - REMOTE I/O HEAD, MODICON	In Stock	
BDE - RING SET, IR 32194144	In Stock	
BDE - RING, PISTON SERVO MOTOR 18"OD	In Stock	
BDE - RING, PISTON SERVO MOTOR 18"OD	In Stock	
BDE - RING, PISTON SERVO MOTOR 18"OD	In Stock	
BDE - RING, PISTON SERVO MOTOR 18"OD	In Stock	
BDE - ROTOR POLES - Pole	In Stock	
BDE - ROTOR SHAFT - Rotating Ring	In Stock	
BDE - RUNNER - UNIT 1 - BOLT,SHAFT TO RUNNER	In Stock	
BDE - Seal Movable	In Stock	
BDE - Seal Stationary	In Stock	
BDE - Seal Stationary	In Stock	
BDE - SENSOR, CABLE REEL LINEAR	In Stock	
BDE - SHAFT, SERVOMOTOR 4140	In Stock	
BDE - SHAFT, SERVOMOTOR 4140	In Stock	
BDE - SHAFT, SERVOMOTOR 4140	In Stock	
BDE - SHAFT, SERVOMOTOR 4140	In Stock	
BDE - SPILLWAY #1-SALMON RIVE - Lift Gearboxes/Nuts	In Stock	



Critical Spare Component	Stock Status	Comments
BDE - STATION SERVICE - BDE PH1 - ACB	In Stock	
BDE - STATION SERVICE - BDE PH1 - Trip Unit - Breker Control Device	In Stock	
BDE - Stationary Ring	In Stock	
BDE - STATOR ASSEMBLY - BAR, COPPER 1/2"X2"X10'	In Stock	
BDE - STATOR ASSEMBLY - BAR, ROTOR CONNECTION	In Stock	
BDE - STATOR ASSEMBLY - BAR, ROTOR CONNECTION	In Stock	
BDE - STATOR ASSEMBLY - BAR, STATOR	In Stock	
BDE - STATOR ASSEMBLY - BAR, STATOR	In Stock	
BDE - STATOR WINDINGS - UNIT 1 - CONNECTOR, STATOR CU	In Stock	
BDE - STATOR WINDINGS - UNIT 1 to 4 - Coils	In Stock	
BDE - SURFACE AIR COOLERS - SAC Unit	In Stock	
BDE - SURFACE AIR COOLERS - Tubes	In Stock	
BDE - THRUST BEARING SEGMENTS - Bearing Segments,	In Stock	
BDE - THRUST/GUIDE BEARING ASSEMBLY - Oil	In Stock	
BDE - THRUST/GUIDE BEARING ASSEMBLY - Springs	In Stock	
BDE - THRUST/GUIDE BEARING ASSEMBLY - TRANSMITTER,DIFF	In Stock	
BDE - THRUST/GUIDE BEARING COOLERS - Cooler	In Stock	
BDE - TURBINE - Turbine Carbon Seal (Units 1 to 4)	In Stock	
BDE - TURBINE - Turbine Carobn Seal (Units 5 & 6)	In Stock	
BDE - TURBINE GUIDE BEARING - Bearing	In Stock	
BDE - TURBINE GUIDE BEARING - Oil Cooler	In Stock	
BDE - Unit 7 Control Board - BOARD, CONTROL	In Stock	
BDE - Unit 7 DRAFT TUBE-TURBINE - Water Level Probe	In Stock	
BDE - UNIT 7 EXCITER - BOARD, DIGITAL I/O	In Stock	
BDE - UNIT 7 EXCITER - BOARD, I/O ANALOG	In Stock	
BDE - UNIT 7 EXCITER - BOARD, MEASURING ABB	In Stock	
BDE - UNIT 7 EXCITER - BOARD, POWER SYSTEM STABI	In Stock	
BDE - UNIT 7 EXCITER - CAPACITOR, 20 MF +-10% 150 V	In Stock	
BDE - UNIT 7 EXCITER - COMPONENT, INTEG CCT	In Stock	
BDE - UNIT 7 EXCITER - CONTACT, ISOLATING	In Stock	
BDE - UNIT 7 EXCITER - INTEG CCT	In Stock	
BDE - UNIT 7 EXCITER - MODULE, ABB DCS500B200361	In Stock	
BDE - UNIT 7 EXCITER - PANEL, CONTROL	In Stock	
BDE - UNIT 7 EXCITER - POWER SUPPLY, ABB 3BHE013940R00	In Stock	
BDE - UNIT 7 EXCITER - RELAY, GROUND VOLTAGE	In Stock	
BDE - Unit 7 GENERATOR COOLING WATER SYSTEM - TRANSMITTER,DIFF	In Stock	
BDE - Unit 7 Generator Field Breaker - ARC CHUTE, ABB UXAB289199Z15	In Stock	
BDE - Unit 7 Generator Field Breaker - BREAKER, ABB EZNE1600MS4-B1	In Stock	
BDE - Unit 7 Generator Field Breaker - Charging Motor	In Stock	
BDE - Unit 7 Generator Field Breaker - COIL, SHUNT CLOSING	In Stock	
BDE - Unit 7 Generator Field Breaker - COIL, SHUNT OPENING	In Stock	
BDE - Unit 7 Generator Field Breaker - CONTACT,ABB UXAB239Z60R0	In Stock	
BDE - Unit 7 Generator Field Breaker - Main Fixed Contacts	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - Unit 7 Generator Field Breaker - Main Moving Contacts	In Stock	
BDE - Unit 7 Generator Field Breaker - MOTOR, CHARGING	In Stock	
BDE - Unit 7 GENERATOR GUIDE BEARING - Segments	In Stock	
BDE - UNIT 7 GOVERNOR - FILTER, HYD 932633Q	In Stock	
BDE - UNIT 7 GOVERNOR - PIN, BALLARM	In Stock	
BDE - UNIT 7 GOVERNOR - PIN, DASHPOT	In Stock	
BDE - UNIT 7 GOVERNOR - PIN, LOWER DRIVE	In Stock	
BDE - UNIT 7 GOVERNOR - PIN, PIVOT	In Stock	
BDE - UNIT 7 GOVERNOR - PIN, ROCKER ARM	In Stock	
BDE - UNIT 7 GOVERNOR - PIN, WOODWARD 11002-71	In Stock	
BDE - UNIT 7 GOVERNOR - PIN, WOODWARD 11002-75	In Stock	
BDE - UNIT 7 GOVERNOR - PLUNGER, SNAP ACTION	In Stock	
BDE - UNIT 7 GOVERNOR - POTENTIOMETER, 1250 OH 0.24 A	In Stock	
BDE - UNIT 7 GOVERNOR - PUMP, OIL IMO A3DB-275	In Stock	
BDE - UNIT 7 GOVERNOR - RETAINER, SWITCH	In Stock	
BDE - UNIT 7 GOVERNOR - RING, SNAP (PILOT SERVO PLUG)	In Stock	
BDE - UNIT 7 GOVERNOR - ROTOR, BALL HEAD MOTOR	In Stock	
BDE - UNIT 7 GOVERNOR - SENSOR, LOAD GOVERNOR	In Stock	
BDE - UNIT 7 GOVERNOR - SOLENOID, 125 V dc	In Stock	
BDE - UNIT 7 GOVERNOR - SOLENOID, 125 Vdc 211E	In Stock	
BDE - UNIT 7 GOVERNOR - SPRING, PILOT VALVE LINK	In Stock	
BDE - UNIT 7 GOVERNOR - SPRING, SPEED SWITCH	In Stock	
BDE - UNIT 7 GOVERNOR - STATOR, BALL HEAD MOTOR	In Stock	
BDE - UNIT 7 GOVERNOR - STATOR, PERMANENT MAGNET	In Stock	
BDE - UNIT 7 GOVERNOR - SWITCH, PRESS OIL ALARM	In Stock	
BDE - UNIT 7 GOVERNOR - Unloader/Relief Valve	In Stock	
BDE - UNIT 7 GOVERNOR - Unloader/Relief Valve	In Stock	
BDE - Unit 7 HEADCOVER ASSEMBLY - BOTTOM RING P001 bushing	In Stock	
BDE - Unit 7 HEADCOVER ASSEMBLY - BUSHING, LOWER HEAD COVER P001	In Stock	
BDE - Unit 7 HEADCOVER ASSEMBLY - PACKING, V-TYPE 3/8 EASY	In Stock	
BDE - UNIT 7 HYDRAULIC GENERATOR - Coolers	In Stock	
BDE - Unit 7 NEUTRAL GROUND TRANSFORMER - Transformer	In Stock	
BDE - Unit 7 OPERATING RING - BUSHING, LINK PIN	In Stock	
BDE - Unit 7 OPERATING RING - CAP, SHEARPIN	In Stock	
BDE - Unit 7 OPERATING RING - LEVER, WICKET GATE	In Stock	
BDE - Unit 7 OPERATING RING - Linkage	In Stock	
BDE - Unit 7 OPERATING RING - PIN, ECCENTRIC P005	In Stock	
BDE - Unit 7 OPERATING RING - PIN, LINK P006	In Stock	
BDE - Unit 7 OPERATING RING - PIN, ROD SHEARPIN	In Stock	
BDE - Unit 7 OPERATING RING - PIN, UPPER DRIVE	In Stock	
BDE - Unit 7 PMG - BALLARM, SPEED SWITCH	In Stock	
BDE - Unit 7 PMG - BEARING, PMG P/N Z995205	In Stock	
BDE - Unit 7 PMG - BEARING, SPEED SIGNAL	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - Unit 7 PMG - BEARING, WW 111006	In Stock	
BDE - Unit 7 PMG - BEARING, WW 1800125	In Stock	
BDE - Unit 7 PMG - BUSHING, OILITE OVERSPEED SWITCH ASSEMBLY	In Stock	
BDE - Unit 7 PMG - BUSHING, URETHANE LOWER D	In Stock	
BDE - Unit 7 PMG - BUSHING, URETHANE UPPER D	In Stock	
BDE - Unit 7 PMG - PIN, BALLARM	In Stock	
BDE - Unit 7 PMG - PIN,DOWEL - SPEED SWITCH	In Stock	
BDE - Unit 7 PMG - PIN, ROCKER ARM	In Stock	
BDE - Unit 7 PMG - PIN, TAPERED	In Stock	
BDE - Unit 7 PMG - PLATE,MOUNTING - MERCURY	In Stock	
BDE - Unit 7 PMG - RING, ROTOR	In Stock	
BDE - Unit 7 PMG - SPRING, SPEED SWITCH	In Stock	
BDE - Unit 7 PMG - STATOR, P.M.G.	In Stock	
BDE - Unit 7 RECTIFYING TRANSFORMER	In Stock	
BDE - Unit 7 ROTOR - Pole	In Stock	
BDE - Unit 7 ROTOR ASSEMBLY - POLE	In Stock	
BDE - Unit 7 RUNNER - TURBINE - CARBON SEAL	In Stock	
BDE - Unit 7 SERVOMOTOR # 1 - PACKING, SERVOMOTOR	In Stock	
BDE - Unit 7 SERVOMOTOR # 1 - PACKING, V TYPE 2-EASY	In Stock	
BDE - Unit 7 SERVOMOTOR # 1 - PACKING, V-TYPE 9"x8"ID	In Stock	
BDE - Unit 7 SERVOMOTOR # 1 - Piston Ring	In Stock	
BDE - Unit 7 SLIPRING/BRUSH RIGGING - Brushes	In Stock	
BDE - Unit 7 SLIPRING/BRUSH RIGGING - Collector rings	In Stock	
BDE - Unit 7 STATOR WINDINGS - Stator Bars	In Stock	
BDE - Unit 7 STATOR WINDINGS - Wedges	In Stock	
BDE - Unit 7 SURFACE AIR COOLERS - Tubes	In Stock	
BDE - Unit 7 THRUST BEARING - Rotating Ring	In Stock	
BDE - Unit 7 THRUST BEARING - Thrust Pads	In Stock	
BDE - Unit 7 THRUST/GUIDE BEARING COOLERS - Coolers	In Stock	
BDE - UNIT 7 TURBINE - Carbon Seal	In Stock	
BDE - UNIT 7 TURBINE - Turbine Bearing	In Stock	
BDE - UNIT 7 TURBINE - wicket gate	In Stock	
BDE - Unit 7 TURBINE GUIDE BEARING - Bearing	In Stock	
BDE - Unit 7 VIBRATION MONITORING - PICK-UP, NON-CONTACT	In Stock	
BDE - Unit 7 VIBRATION MONITORING - PICK-UP, SPEED SENSING	In Stock	
BDE - Unit 7 VIBRATION MONITORING - POWER SUPPLY, IRD PCB 29128	In Stock	
BDE - Unit 7 WICKET GATES - GATE, WICKET	In Stock	
BDE - VALVE, 1" THERMAL TRIP	In Stock	
BDE - VALVE, CONT.1/2 4-WAY SS	In Stock	
BDE - VALVE, CONT.1/2 4-WAY SS	In Stock	
BDE - VALVE, CONT.1/2"4-WAY SS	In Stock	
BDE - VALVE, CONT.1/2"4-WAY SS	In Stock	
BDE - VALVE, CONTROL 1" SS	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - VALVE, CONTROL 1" SS	In Stock	
BDE - VALVE, CONTROL 2" SS	In Stock	
BDE - VALVE, CONTROL 2" SS	In Stock	
BDE - VALVE, CONTROL 2" SS	In Stock	
BDE - VALVE, CONTROL 2" SS	In Stock	
BDE - WICKET GATES AND LINKAGES - PACKING,V TYPE 2-EASY	In Stock	
BDE - WICKET GATES AND LINKAGES - PIN,ECCENTRIC	In Stock	
BDE - WICKET GATES AND LINKAGES - RING, PISTON SERVO MOTOR 18"OD	In Stock	
BDE - WICKET GATES AND LINKAGES - Shear Pins	In Stock	
BDE - 7 Slip Ring	In Stock	
CAT - ACCUMULATOR TANK - Air Admission Valve	In Stock	
CAT - ACCUMULATOR TANK - COIL AUTO AIR CHARGING SOLND	In Stock	
CAT - ARC-CHUTE ABB #15DA045697R1	In Stock	
CAT - ARC-CHUTE STATION SERVICE, 3 PHASE, 600 V	In Stock	
CAT - BEARING KIT, IR 32127516	In Stock	
CAT - BEARING, GUIDE	In Stock	
CAT - BEARING, BOWL - INTERMEDIATE	In Stock	
CAT - BEARING, BOWL - TOP	In Stock	
CAT - BEARING, BRIER HYD33A66	In Stock	
CAT - BEARING, LINESHAFT	In Stock	
CAT - BEARING, STUFFING BOX	In Stock	
CAT - BEARING, SUCTION CASE	In Stock	
CAT - BELT, V IR 95100558	In Stock	
CAT - BOARD, CONTROL	In Stock	
CAT - BOARD, DIGITAL I/O	In Stock	
CAT - BOARD, I/O ANALOG	In Stock	
CAT - BOARD, MEASURING ABB	In Stock	
CAT - BOARD, POWER SYSTEM STABI	In Stock	
CAT - BRAKING JET ASSEMBLY - Control Valve	In Stock	
CAT - BREAKER, EXCITER ABB	In Stock	
CAT - BREAKERS BY BROWN BOVERI, 600V - Spare Field Breaker in Used Spare Exciter	In Stock	
CAT - Cartridge, Oil Seperator	In Stock	
CAT - COIL, CONTACTOR 130 V 84D418	In Stock	
CAT - COIL, SHUNT CLOSING	In Stock	
CAT - COIL, SHUNT OPENING	In Stock	
CAT - COLLAR, SAND	In Stock	
CAT - CONTACT, NORMAL LONG 700C	In Stock	
CAT - CONTACT, NORMAL SHORT 700	In Stock	
CAT - CONTACT, OVERLAP LONG 700	In Stock	
CAT - CONTACT, OVERLAP SHORT 70	In Stock	
CAT - CONTACT, I SOLATING	In Stock	
CAT - CONTROLLER, PLC DL05	In Stock	
CAT - Electronic Governor - BUSHING CABLE PROP VLV,	In Stock	

Critical Spare Component	Stock Status	Comments
CAT - Electronic Governor - CONNECTOR, MLDT ROD BALL	In Stock	
CAT - Electronic Governor - CONVERTER, SERIAL/ETHERNET	In Stock	
CAT - Electronic Governor - Deflector Proportional	In Stock	
CAT - Electronic Governor - Guide Ball Slide	In Stock	
CAT - Electronic Governor - HOLDER, CIRCUIT BREAKER	In Stock	
CAT - Electronic Governor - INTERFACE, ETHERNET VERSA	In Stock	
CAT - Electronic Governor - LVDT deflector	In Stock	
CAT - Electronic Governor - MODULE, GE AMPLIFIER	In Stock	
CAT - Electronic Governor - MODULE, GE PT INTERFACE	In Stock	
CAT - Electronic Governor - MODULE, PLUG-IN DIODE	In Stock	
CAT - Electronic Governor - MODULE, VERSAMAX 16 PT	In Stock	
CAT - Electronic Governor - MODULE, VERSAMAX 32 PT	In Stock	
CAT - Electronic Governor - MODULE, VERSAMAX 4 AO	In Stock	
CAT - Electronic Governor - PC, Atlas 2	In Stock	
CAT - Electronic Governor - PC, ATLAS VX WORKS	In Stock	
CAT - Electronic Governor - Pos.Xducer	In Stock	
CAT - Electronic Governor - POs.Xducer	In Stock	
CAT - Electronic Governor - PROBE,SPEED ZVPU	In Stock	
CAT - Electronic Governor - RELAY, 14 PIN PLUG 24VDC	In Stock	
CAT - Electronic Governor - Rod vdeflector	In Stock	
CAT - Electronic Governor - VERSAMAX powersupply	In Stock	
CAT - Element, Air Filter	In Stock	
CAT - ELEMENT, AFTER FILTER	In Stock	
CAT - ELEMENT, AIR FILTER	In Stock	
CAT - ELEMENT, PRE FILTER	In Stock	
CAT - EXCITATION TRF	In Stock	
CAT - Exciter # 1 - BOARD POWER SYSTEM STABI	In Stock	
CAT - Exciter # 1 - DIGITAL I/O BOARD	In Stock	
CAT - Exciter # 1 - Arc Chute	In Stock	
CAT - Exciter # 1 - BOARD MEASURING	In Stock	
CAT - Exciter # 1 - Breaker	In Stock	
CAT - Exciter # 1 - COIL, SHUNT CLOSING	In Stock	
CAT - Exciter # 1 - COIL, SHUNT OPENING	In Stock	
CAT - Exciter # 1 - CONTACT, ISOLATING	In Stock	
CAT - Exciter # 1 - Control Board	In Stock	
CAT - Exciter # 1 - I/O ANALOG BOARD CONTROL	In Stock	
CAT - Exciter # 1 - MODULE, THYRISTOR BRIDGE	In Stock	
CAT - Exciter # 1 - MOTOR, CHARGING	In Stock	
CAT - Exciter # 1 - PANEL, CONTROL	In Stock	
CAT - Exciter # 1 - SUPPLY, 110-220 VOLT	In Stock	
CAT - EXCITER NO. 2 - Analog Input Transducer	In Stock	
CAT - EXCITER NO. 2 - CARD ABB 1WX 174-2	In Stock	
CAT - EXCITER NO. 2 - CARD ABB HIER319619R2	In Stock	

Critical Spares, Hydraulic Generation: In Stock

Critical Spare Component	Stock Status	Comments
CAT - EXCITER NO. 2 - CARD ABB KX9170A V1	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN 2010B-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0016A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0025A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0026A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0027A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0031A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN004A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0079A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0083A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0089A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0091A-P,CARD ABB UN0093A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0503A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0510C-9	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0516A	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0900B-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN0901B-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN1001C-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN1004A-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UN1024C-P	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UNC001D-E	In Stock	
CAT - EXCITER NO. 2 - CARD ABB UNS0026A-P	In Stock	
CAT - EXCITER NO. 2 - CARD BBC UN0077AP	In Stock	
CAT - EXCITER NO. 2 - CARD,BBC UN2001F-P	In Stock	
CAT - EXCITER NO. 2 - CARD\ ABB UN0014B-P	In Stock	
CAT - EXCITER NO. 2 - CARD\ ABB UN1004A-P	In Stock	
CAT - EXCITER NO. 2 - COIL, 125 VOLT 60 HZ	In Stock	
CAT - EXCITER NO. 2 - COIL, SHUNT CLOSING	In Stock	
CAT - EXCITER NO. 2 - CONTROL BOARD	In Stock	
CAT - EXCITER NO. 2 - Field Voltage Transducer	In Stock	
CAT - EXCITER NO. 2 - Fuse 600 A	In Stock	
CAT - EXCITER NO. 2 - Shunt Voltage Transducer	In Stock	
CAT - EXCITER NO. 2 - Thyristor	In Stock	
CAT - EXCITER NO. 2 - Transformer	In Stock	
CAT - EXCITER NO. 2 - Unitrol Card	In Stock	
CAT - Filter, Mat	In Stock	
CAT - Filter, Oil	In Stock	
CAT - FILTER,AIR INTAKE - 101T	In Stock	
CAT - FILTER,ELEMENT 10 MICRON	In Stock	
CAT - FLOAT - 2315	In Stock	
CAT - GASKET SET, IR 30423339	In Stock	
CAT - GENERATOR - Brake Ring	In Stock	Item #68001594
CAT - GENERATOR - Brake Solenoid	In Stock	Item #58608396

Critical Spare Component	Stock Status	Comments
CAT - GENERATOR - Brake Valve	In Stock	Item #65300060
CAT - GENERATOR - INSLTR, SLIP RING	In Stock	Item #68001592
CAT - GENERATOR - MODULE, TYP 1CD 108 M 2-02 vibro-meter	In Stock	Item #68001591
CAT - GENERATOR - OVERCURRENT Relay	In Stock	Item #60101058
CAT - GENERATOR - RELAY, TIME DELAY .6 - 1.0	In Stock	
CAT - GENERATOR - Rotating Ting	In Stock	Item #58800486
CAT - Generator Bearing - Cooler	In Stock	Item #68001626
CAT - Governor - JOINT, UNIVERSAL SSG #1787058	In Stock	
CAT - Governor Control System - CABLE DEFLECTOR FDBK AMP	In Stock	
CAT - Governor Control System - CABLE FEEDBACK 20'	In Stock	
CAT - Governor Control System - CABLE FEEDBACK 200'	In Stock	
CAT - Governor Control System - CABLE FEEDBACK 50'	In Stock	
CAT - Governor Control System - CABLE PROPORTIONAL VLV	In Stock	
CAT - Governor Control System - CABLE, NEEDLE FDBK AMP,	In Stock	
CAT - Governor Control System - CABLE90 DEG.5' ZVPU,	In Stock	
CAT - Governor Control System - Power Supply	In Stock	
CAT - Governor Control System - Power Supply 24 V	In Stock	
CAT - Governor Hydraulics - Cooler	In Stock	
CAT - Governor Hydraulics - Deflector valve	In Stock	
CAT - Governor Hydraulics - DEFLECTOR, SERVOMOTOR	In Stock	
CAT - Governor Hydraulics - ELEMENT, FILTER SM 10	In Stock	
CAT - Governor Hydraulics - ELEMENT, FILTER SM 25	In Stock	
CAT - Governor Hydraulics - OIL, TURBINE 46 (205L)	In Stock	
CAT - Governor Hydraulics - Piston Seal 725X8 X3/8	In Stock	
CAT - Governor Hydraulics - Piston Seal 9X8X1/2	In Stock	
CAT - Governor Hydraulics - PLUG, C/V 010168-390-163	In Stock	
CAT - Governor Hydraulics - PLUG, C/V 021002-281-208	In Stock	
CAT - Governor Hydraulics - PLUG, ESCHER WYSS	In Stock	
CAT - Governor Hydraulics - Pressure Switch	In Stock	
CAT - Governor Hydraulics - Seal	In Stock	
CAT - Governor Pumps - INSERT, CURVED JAW SPIDER	In Stock	
CAT - Governor Pumps - Pump	In Stock	
CAT - Guide Bearing Segments - Bearing	In Stock	
CAT - Isolated Phase Bus - PT Fuse	In Stock	
CAT - MODULE, THYRISTOR BRIDGE	In Stock	
CAT - MODULE, THYRISTOR BRIDGE	In Stock	
CAT - MOTOR, CHARGING	In Stock	
CAT - NEEDLE VALVE ASS (6) - Amplifier/Proportional	In Stock	
CAT - NEEDLE VALVE ASS (6) - BUSHING NOZZLE 374527007/P001	In Stock	
CAT - NEEDLE VALVE ASS (6) - CABLE AIRCRAFT 20	In Stock	
CAT - NEEDLE VALVE ASS (6) - CABLE AIRCRAFT	In Stock	
CAT - NEEDLE VALVE ASS (6) - Casing guide D/S	In Stock	
CAT - NEEDLE VALVE ASS (6) - Casing guide U/S	In Stock	

Critical Spare Component	Stock Status	Comments
CAT - NEEDLE VALVE ASS (6) - CHAIN,DBS FCS-A1-15	In Stock	
CAT - NEEDLE VALVE ASS (6) - CONNECTOR, MINIATURE CHAIN	In Stock	
CAT - NEEDLE VALVE ASS (6) - CONNECTOR, MINIATURE CHAIN	In Stock	
CAT - NEEDLE VALVE ASS (6) - CONTROL DEVICE,NEEDLE	In Stock	
CAT - NEEDLE VALVE ASS (6) - Needle Seat	In Stock	
CAT - NEEDLE VALVE ASS (6) - Seal	In Stock	
CAT - NEEDLE VALVE ASS (6) - Seal Piston Ring	In Stock	
CAT - NEEDLE VALVE ASS (6) - Shuttle Valve	In Stock	
CAT - NEEDLE VALVE ASS (6) - Tip	In Stock	
CAT - Oil, Cooling Compressor	In Stock	
CAT - OIL, TURBINE 46 (205L)	In Stock	
CAT - OPERATOR, WORM GEAR 8"	In Stock	
CAT - O-RING, NOZZLE M868 X 4	In Stock	
CAT - PANEL, CONTROL	In Stock	
CAT - PISTON/PIN ASSY, IR 30215222	In Stock	
CAT - PISTON/PIN ASSY, IR 30215438	In Stock	
CAT - PISTON/PIN ASSY, IR 30292460	In Stock	
CAT - POWER SUPPLY, 110-220 V	In Stock	
CAT - POWER TUNNEL (ROCKCUT) - Seal, Adit Door	In Stock	
CAT - RECTIFIER, BRIDGE 250JB6L-8338	In Stock	
CAT - RECTIFIER, BRIDGE 35MB60A-8419	In Stock	
CAT - RECTIFIER, BRIDGE 35MB60A-8421	In Stock	
CAT - RELAY, ASEA RXSF1, RK271 0	In Stock	
CAT - RING SET, IR 32194144	In Stock	
CAT - RING SET, IR 32194276	In Stock	
CAT - RING SET, IR 37138146	In Stock	
CAT - RING/GASKET KIT, IR 32133969	In Stock	
CAT - Rotating Ring	In Stock	
CAT - Rotating Ring	In Stock	
CAT - Rotating Ring	In Stock	
CAT - ROTOR - GENERATOR - Pole	In Stock	
CAT - Rotor Poles - Entire Pole	In Stock	
CAT - SEAL, OIL IR 32204562	In Stock	
CAT - SEAL, SPHERICAL VALVE	In Stock	
CAT - SEAL, SPHERICAL VALVE	In Stock	
CAT - SEAL, SPHERICAL VALVE	In Stock	
CAT - Slipring/Brush Rigging Assembly - Brush Holder	In Stock	
CAT - Slipring/Brush Rigging Assembly - Brushes	In Stock	
CAT - Slipring/Brush Rigging Assembly - Insulator	In Stock	
CAT - Slipring/Brush Rigging Assembly - Ring, Collector Assembly	In Stock	
CAT - STATION SERVICE SYSTEM - Arc Chute	In Stock	
CAT - STATION SERVICE SYSTEM - COIL,CLOSING 129 Vdc	In Stock	
CAT - STATION SERVICE SYSTEM - Contact 1600Amp	In Stock	

Critical Spares, Hydraulic Generation: In Stock



Critical Spare Component	Stock Status	Comments
CAT - STATION SERVICE SYSTEM - Contact Moving Arc	In Stock	
CAT - STATION SERVICE SYSTEM - Contact Stationary Arc	In Stock	
CAT - STATION SERVICE SYSTEM - CT 400-800	In Stock	
CAT - STATION SERVICE SYSTEM - CT 800-1600	In Stock	
CAT - STATION SERVICE SYSTEM - Main Drawout Contact	In Stock	
CAT - STATION SERVICE SYSTEM - Trip Coil	In Stock	
CAT - STATION SERVICE SYSTEM - Undervoltage Coil	In Stock	
CAT - Stator Assembly - BAR STATOR BOTTOM,	In Stock	
CAT - Stator Assembly - BAR STATOR TOP,	In Stock	
CAT - Stator Assembly - CAP STATOR WINDING END,	In Stock	
CAT - Stator Assembly - Connector	In Stock	
CAT - Stator Assembly - JUMPER,STATOR ASM 105	In Stock	
CAT - Stator Assembly - JUMPER,STATOR ASM 107	In Stock	
CAT - Stator Assembly - JUMPER,STATOR ASM 108	In Stock	
CAT - Stator Assembly - JUMPER,STATOR ASM 109	In Stock	
CAT - Stator Assembly - JUMPER,STATOR WINDING	In Stock	
CAT - Stator Assembly - JUMPER,STATOR WINDING	In Stock	
CAT - Stator Assembly - JUMPER,STATOR WINDING	In Stock	
CAT - Stator Assembly - JUMPER,STATOR WINDING	In Stock	
CAT - Stator Assembly - Slider	In Stock	
CAT - Stator Assembly - Slider	In Stock	
CAT - Stator Assembly - Slider	In Stock	
CAT - Stator Assembly - Wedge	In Stock	
CAT - Stator Assembly - Wedge	In Stock	
CAT - Stator Windings - JUMPER, STATOR ASM 105	In Stock	
CAT - Stator Windings - JUMPER, STATOR ASM 107	In Stock	
CAT - Stator Windings - JUMPER, STATOR ASM 108	In Stock	
CAT - Stator Windings - JUMPER, STATOR ASM 109	In Stock	
CAT - Stator Windings - JUMPER, STATOR WINDING	In Stock	
CAT - Stator Windings - JUMPER, STATOR WINDING	In Stock	
CAT - Stator Windings - JUMPER, STATOR WINDING	In Stock	
CAT - SURFACE AIR COOLERS - Surface Air Cooler	In Stock	
CAT - SWITCH, DIFFERENTIAL PRES	In Stock	
CAT - TEXT DISPLAY, AIR DRYER	In Stock	
CAT - THRUST BEARING - Thrust Pads	In Stock	
CAT - Thrust Bearing Segements - Segments	In Stock	
CAT - Thrust Pads	In Stock	
CAT - THYRISTOR, ABB CS411-20	In Stock	
CAT - Turbine - Runner	In Stock	
CAT - Turbine Guide Bearing - Bearing	In Stock	
CAT - VALVE ASSEMBLY 35 GA	In Stock	
CAT - VALVE ASSEMBLY 55 GA	In Stock	
CAT - VALVE/GASKET KIT, IR 32.133951	In Stock	
CAT - Minimal Pressure Valve	In Stock	

Critical Spare Component	Stock Status	Comments
CAT - Turbine Bearing Cooler	In Stock	
EBBE - GEAR, HANDWHEEL	In Stock	
EBBE - GEAR, HELICAL SET	In Stock	
EBBE - GEAR,WORM 16:1 RATIO	In Stock	
EBBE - LINK, DECLUTCH	In Stock	
EBBE - PIN, FORK PIVOT	In Stock	
GCL - Bar, Stator Bottom	In Stock	
GCL - Bar, Stator Top	In Stock	
GCL - Base, Smoke Detector	In Stock	
GCL - Bearing, Guide GE	In Stock	
GCL - Bearing, Pivoted Guide	In Stock	
GCL - Bearing, Pivoted Guide GE	In Stock	
GCL - Bearing, Thrust	In Stock	
GCL - Bearing, Thrust	In Stock	
GCL - Bell, Fire Alarm 10"	In Stock	
GCL - BELT SET, V (4 PC)	In Stock	
GCL - BELT SET, V (4 PC)	In Stock	
GCL - BELT SET, V (4 PC)	In Stock	
GCL - Breaker, Volt Autom	In Stock	
GCL - Breaker, Volt Automatic	In Stock	
GCL - Brush, Carb Metric	In Stock	
GCL - Bushing, Bottom Shaft	In Stock	
GCL - Bushing, HV ABB TO25W0412AT	In Stock	
GCL - Bushing, Packing Gland	In Stock	
GCL - Card Measuring SDCS-Pin51	In Stock	
GCL - Card, Analog I/O	In Stock	
GCL - Card, Digital I/O ABB	In Stock	
GCL - Card, EXT I/O ABB	In Stock	
GCL - Contactor, AE LINE 125VDC	In Stock	
GCL - Control Board, SDCS-CON-2	In Stock	
GCL - Detector, heat 135F	In Stock	
GCL - Detector, Heat 281B-PL	In Stock	
GCL - Detector, Smoke EC30DU-3	In Stock	
GCL - Device, Surge Suppression	In Stock	
GCL - ETH Card	In Stock	
GCL - Fan, Cooling 27" ABB	In Stock	
GCL - FILTER, AIR CARTRIDGE	In Stock	
GCL - FILTER, AIR CARTRIDGE	In Stock	
GCL - FILTER, AIR CARTRIDGE	In Stock	
GCL - FILTER, ELEMENT	In Stock	
GCL - FILTER, ELEMENT	In Stock	
GCL - FILTER, ELEMENT	In Stock	
GCL - FILTER, INLINE	In Stock	

Critical Spare Component	Stock Status	Comments
GCL - FILTER, INLINE	In Stock	
GCL - FILTER, INLINE	In Stock	
GCL - FILTER, INLINE	In Stock	
GCL - FILTER, INLINE	In Stock	
GCL - FILTER, INLINE	In Stock	
GCL - FILTER, MAT	In Stock	
GCL - FILTER, MAT	In Stock	
GCL - FILTER, MAT	In Stock	
GCL - FILTER, OIL KAESER	In Stock	
GCL - FILTER, OIL KAESER	In Stock	
GCL - FILTER, OIL KAESER	In Stock	
GCL - Fuse, 1250 A 690 V 170M6166	In Stock	
GCL - Gas, Inergen (350F3)	In Stock	
GCL - Gas, Inergen (425F3)	In Stock	
GCL - Generator - Bottom Stator Bars (18)	In Stock	
GCL - Generator - Converter, RTD Temperature	In Stock	
GCL - Generator - Converter, RTD Universal	In Stock	
GCL - Generator - Creep Detector ASSY, 129 V	In Stock	
GCL - Generator - Device, Surge Suppression	In Stock	
GCL - Generator - Fuse, TEMP Limiter	In Stock	
GCL - Generator - Fuse, Voltage XFMR	In Stock	
GCL - Generator - Guide Bearing, GE	In Stock	
GCL - Generator - Jumper Pole ASM #2	In Stock	
GCL - Generator - Jumper Pole ASM #3	In Stock	
GCL - Generator - Jumper Pole ASM #4	In Stock	
GCL - Generator - Jumper, Pole ASM #1	In Stock	
GCL - Generator - Level, Indicator Magnetic	In Stock	
GCL - Generator - Oil, Turbine 46 (205L)	In Stock	
GCL - Generator - Packing, V-Type GE	In Stock	
GCL - Generator - Pin, Taper 25MM x 90MM	In Stock	
GCL - Generator - Plate, Brake GE	In Stock	
GCL - Generator - Plate, Locating Pivoted	In Stock	
GCL - Generator - Pole, Wound GE	In Stock	
GCL - Generator - Probe, 741 GE	In Stock	
GCL - Generator - RTD, 12.5" -50-550 DEG	In Stock	
GCL - Generator - RTD, 17" -50-550 DEG C	In Stock	
GCL - Generator - Top Stator Bars (36)	In Stock	
GCL - Governor Control System - POWER SUPPLY,18-32 Vdc	In Stock	
GCL - Governor Control System - Pressure Switch	In Stock	
GCL - Governor Control System - TRANSMITTER,PRESS 0-2000	In Stock	
GCL - Governor Control System - TRANSMITTER,TEMP 4-20 MA	In Stock	
GCL - Governor Hydraulic System - Filter, Element NS-7	In Stock	
GCL - Governor Hydraulic System - Joint, Shaft Parker	In Stock	

Critical Spare Component	Stock Status	Comments
GCL - Governor Hydraulic System - Pump, Vane Vick	In Stock	
GCL - Governor Hydraulic System - Seal, Polypak "U" Cup	In Stock	
GCL - Governor Hydraulic System - Valve, Check 1 6000 psi	In Stock	
GCL - Governor Hydraulic System - Valve, Proportional	In Stock	
GCL - Governor Hydraulic System - Valve, Relief	In Stock	
GCL - Holder, Brush Metric	In Stock	
GCL - Inflatable Seal	In Stock	
GCL - Jumper, Pole ASM #1	In Stock	
GCL - Jumper, Pole ASM #2	In Stock	
GCL - Jumper, Pole ASM #3	In Stock	
GCL - Jumper, Pole ASM #4	In Stock	
GCL - Key, Pole Driven	In Stock	
GCL - Key, Pole Stationary	In Stock	
GCL - Locating Plate, Pivoted	In Stock	
GCL - LVDT	In Stock	
GCL - Measuring Board ABB	In Stock	
GCL - MLDT	In Stock	
GCL - Module, Control Relay	In Stock	
GCL - Module, Serial processor	In Stock	
GCL - Nut, Hex M30X3.5-6H	In Stock	
GCL - Oil, Turbine 46 (205L)	In Stock	
GCL - Operating Ring - BUSHING, GE 226043126X015	In Stock	
GCL - Operating Ring - Washer, Ring Seal	In Stock	
GCL - Panel, Service UNS 0874A-P	In Stock	
GCL - PIN, TAPER 25MM X 90MM	In Stock	
GCL - Pole, Wound GE	In Stock	
GCL - Power Supply, SDCS-POWL	In Stock	
GCL - Power Supply, UNS0868A-P	In Stock	
GCL - Probe, 741 GE	In Stock	
GCL - Pump, Vane Vick	In Stock	
GCL - Relay, Low Voltage	In Stock	
GCL - Relay, Overload	In Stock	
GCL - Relay, Overload 0.32-1.0 A	In Stock	
GCL - Relay, Overload 1.6-5.0 A	In Stock	
GCL - Relay, Overload 3.7-12 A	In Stock	
GCL - RELAY, 11 PIN 24 V	In Stock	
GCL - RELAY, 110-125 V	In Stock	
GCL - RELAY, 110-125 V ABB	In Stock	
GCL - RELAY, 110-125 Vdc	In Stock	
GCL - RELAY, 120 V 10 A DPDT	In Stock	
GCL - RELAY, 14 PIN 110/120 Vac	In Stock	
GCL - RELAY, 8 PIN 110/120 Vac(S)	In Stock	
GCL - RELAY, 8 PIN 120 V ac/dc	In Stock	

Critical Spares, Hydraulic Generation: In Stock

Critical Spare Component	Stock Status	Comments
GCL - RELAY, 8 PIN DPDT	In Stock	
GCL - RELAY, ANTI-PUMP	In Stock	
GCL - RELAY, AUX 48 Vdc	In Stock	
GCL - RELAY, BREAKER FAIL	In Stock	
GCL - RELAY, BUSHHOLZ 250 V 2 A	In Stock	
GCL - RELAY, CONTROL 120 V 60 HZ	In Stock	
GCL - RELAY, CONTROL 120 V 60 HZ	In Stock	
GCL - RELAY, CONTROL 120V 60HZ	In Stock	
GCL - RELAY, CONTROL 125 Vdc	In Stock	
GCL - RELAY, CONTROL 24 Vdc	In Stock	
GCL - RELAY, FAST TRIPPING 125 V	In Stock	
GCL - RELAY, INTERPOSING	In Stock	
GCL - RELAY, LOCKOUT 125 V	In Stock	
GCL - RELAY, LOCKOUT 125 V	In Stock	
GCL - RELAY, OVERCURRENT	In Stock	
GCL - RELAY, OVERLOAD	In Stock	
GCL - RELAY, OVERLOAD CH C306DN3B	In Stock	
GCL - RELAY, PLUG-IN 14 PIN	In Stock	
GCL - RELAY, PLUG-IN 14 PIN dc	In Stock	
GCL - RELAY, PUSHBUTTON 110 V	In Stock	
GCL - RELAY, PUSHBUTTON 125 V	In Stock	
GCL - RELAY, RESIDUAL	In Stock	
GCL - RELAY, THERMISTOR 110 V	In Stock	
GCL - RELAY, TIME 24-230 V ac/dc	In Stock	
GCL - RELAY, TIME TYPE SGDM-1	In Stock	
GCL - RELAY, TRIP CIRCUIT	In Stock	
GCL - RELAY, VOLTAGE UNBALANCE	In Stock	
GCL - Ring Assembly, Collector	In Stock	
GCL - Ring Assy, Collector	In Stock	
GCL - Ring, Rotating GE	In Stock	
GCL - Ring, Sealing C/W Spring	In Stock	
GCL - RTD, 12.5" -50-550 Deg	In Stock	
GCL - RTD, 12.5" -50-550 Deg	In Stock	
GCL - RTD, 17" -50-550 Deg C	In Stock	
GCL - RTD, 17" -50-550 Deg C	In Stock	
GCL - Runner - Seal, 770 mm x 730 mm x 25 mm	In Stock	
GCL - SCREW,CAP M30X3.5-6GX130MM	In Stock	
GCL - Seal, Top Guide Bearing	In Stock	
GCL - Servomotor - Rod, Seal H092-730	In Stock	
GCL - Servomotor - Rod, Seal H254-918	In Stock	
GCL - Servomotor Assembly - Ring, Piston GE	In Stock	
GCL - Shim, GE 007	In Stock	
GCL - Shim, GE 008	In Stock	

Critical Spare Component	Stock Status	Comments
GCL - Shoe, Brake GE 6201B6815L005	In Stock	
GCL - Sleeve, Shaft	In Stock	
GCL - SOCKET,RELAY 14 PIN 5 A	In Stock	
GCL - SOCKET,RELAY 8 PIN 7 A	In Stock	
GCL - Speed Signal Generator - Pickup, Zero Velocity	In Stock	
GCL - Spring Assy, Thrust	In Stock	
GCL - Spring, GE	In Stock	
GCL - Spring, GE	In Stock	
GCL - Stick, Joint Horz	In Stock	
GCL - Stick, Joint Vert	In Stock	
GCL - Surface Air Coolers - Cooler, Surface Air	In Stock	
GCL - Switch, 20-160 ABB 104-324-46	In Stock	
GCL - Switch, Press 200 PSI 15 A	In Stock	
GCL - Switch, Press Actuated	In Stock	
GCL - Switch, Press Gran 20W	In Stock	
GCL - Synchronizer	In Stock	
GCL - Thermometer, ADJ 0-55	In Stock	
GCL - THRISTOR, 5STP18F1800 V11	In Stock	
GCL - Thrust/Guide Bearing Coolers - Coil, Cooling GE	In Stock	
GCL - Transducer, Balluff Track	In Stock	
GCL - TRANSMITTER, FRAZIL ICE	In Stock	
GCL - Transmitter, PFM	In Stock	
GCL - Transmitter, Temp 4-20 MA	In Stock	
GCL - TRANSMITTER,WATER LEVEL	In Stock	
GCL - Turbine Assembly - Packing Ring, Segment	In Stock	
GCL - Turbine Assembly - Pad, Stop GE	In Stock	
GCL - Turbine Assembly - Ring, Rotating GE	In Stock	
GCL - Turbine Assembly - Ring, Sealing C/W Spring	In Stock	
GCL - Turbine Assembly - Ring, Wear	In Stock	
GCL - Turbine Assembly - Seal, Inflatable	In Stock	
GCL - Turbine Assembly - Transmitter, Diff Pressure	In Stock	
GCL - Turbine Assembly - Transmitter, Pressure 0-90 PSIG	In Stock	
GCL - Turbine Assembly - Transmitter, Pressure -5T055	In Stock	
GCL - Turbine Assembly - Transmitter, Pressure GE	In Stock	
GCL - Turbine Assembly - Valve, Check Wafer 12"D	In Stock	
GCL - VALVE, CHECK PRESSURE	In Stock	
GCL - VALVE, CHECK PRESSURE	In Stock	
GCL - VALVE, CHECK PRESSURE	In Stock	
GCL - Valve, Purge GE	In Stock	
GCL - VALVE, INLET MAIN KIT	In Stock	
GCL - VALVE, INLET MAIN KIT	In Stock	
GCL - VALVE, INLET MAIN KIT	In Stock	
GCL - VALVE, PURGE GE	In Stock	

Critical Spare Component	Stock Status	Comments
GCL - Washer, Brake Plate	In Stock	
GCL - Washer, GE 105000100	In Stock	
GCL - Wicket Gates - Bushing, GE 226043126X015	In Stock	
GCL - Wicket Gates - Gate, Wicket GE	In Stock	
GCL - Wicket Gates - Level, Gate GE	In Stock	
GCL - Wicket Gates - Lever, Shear GE	In Stock	
GCL - Wicket Gates - Liner, Gate Operating	In Stock	
GCL - Wicket Gates - Link, GE	In Stock	
GCL - Wicket Gates - Pin, Eccentric	In Stock	
GCL - Wicket Gates - Pin, Shear GE	In Stock	
GCL - Wicket Gates - Pin, Taper GE	In Stock	
GCL - Wicket Gates - Plate, Retaining GE	In Stock	
GCL - Wicket Gates - Plate, Top GE	In Stock	
GCL - Wicket Gates - Shim, Laminum	In Stock	
GCL - Wicket Gates - Sleeve, BRS 210mm	In Stock	
GCL - Wicket Gates - Spacer	In Stock	
GCL - XFMR, CT 15 kV	In Stock	
HLK - Accumulator tank Solinoid Valve	In Stock	
HLK - ADAPTER,REMOTE I/O	In Stock	
HLK - Ampmeter	In Stock	
HLK - AUTO AIR CHARGING SOLND.	In Stock	
HLK - BACKPLANE, 10 SLOT MODICON	In Stock	
HLK - BEARING KIT	In Stock	
HLK - BOARD, FIRING ES	In Stock	
HLK - BREAKER, 100 A 600 V	In Stock	
HLK - BREAKER, 150 A 600 V	In Stock	
HLK - BREAKER, 225 A 600 V 3P	In Stock	
HLK - BREAKER, 600 V 3 PHASE	In Stock	
HLK - BRIDGE, THYRISTOR EG	In Stock	
HLK - Card Battery Charger	In Stock	
HLK - Card Battery Charger	In Stock	
HLK - Card Battery Charger	In Stock	
HLK - Card Battery Charger	In Stock	
HLK - Card Gate Pulse	In Stock	
HLK - CIRCUIT BREAKER - Anti-Pump Relay	In Stock	
HLK - CIRCUIT BREAKER - Charging Motor	In Stock	
HLK - CIRCUIT BREAKER - Motor Brush Kit	In Stock	
HLK - CIRCUIT BREAKER - Primary Disconnect	In Stock	
HLK - CIRCUIT BREAKER - Shunt Trip Coil	In Stock	
HLK - CIRCUIT BREAKER - Spring Release Coil	In Stock	
HLK - COIL, AUTO AIR CHARGING SOLND.	In Stock	
HLK - CONTACT, AUX GE	In Stock	
HLK - CONTACTOR, FURNAS	In Stock	

Critical Spare Component	Stock Status	Comments
HLK - Creep Detector	In Stock	
HLK - EXCITATION - Bridge (Entire Module)	In Stock	
HLK - EXCITER FIELD BREAKER - Entire Unit	In Stock	
HLK - GASKET KIT, COMPAIR 45244	In Stock	
HLK - GASKET KIT, COMPAIR 79452	In Stock	
HLK - GENERATOR - Brake Shoes	In Stock	
HLK - GENERATOR - Generator Air Valve	In Stock	
HLK - GENERATOR - SOLENOID,GENERATOR AIR VALVE	In Stock	
HLK - GENERATOR CIRCUIT BREAKER	In Stock	
HLK - GOVERNOR ACCUMULATOR TANK - Air Admission Solenoid	In Stock	
HLK - GOVERNOR ACCUMULATOR TANK - Solenoid Valve	In Stock	
HLK - GOVERNOR ACCUMULATOR TANK - SWITCH PRESS OIL ALARM	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL RESET SOLENOID	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL OIL PUMP UNLOADER SOLIND.	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL PARTIAL SHUTDOWN RESET	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - COIL SHUTDOWN SOLENOID 65SD	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - COILDASHPOT	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - Filter	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - GATE LIMIT, ROD	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - PUMP UNLOADER	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - UNLOADER PISTON	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - WOODWARD 1447- 634,motor	In Stock	
HLK - GOVERNOR HYDRAULIC SYSTEM - WOODWARD 1447-640,MOTOR	In Stock	
HLK - GOVERNOR SPEED GENERATOR - Gear Drive	In Stock	
HLK - GOVERNOR SPEED GENERATOR - GEAR, WOODWARD 1447-640	In Stock	
HLK - GOVERNOR SPEED GENERATOR - Speed Switch Bracket	In Stock	
HLK - GUIDE BEARING SEGMENTS (SET) - BEARING,SEGMENT	In Stock	
HLK - HD-1N - HINDS LAKE INTAKE - TRANSMITTER,PRESS 0-375	In Stock	
HLK - HEADCOVER ASSEMBLY - BUSHING 60X75 MM,	In Stock	
HLK - HEADCOVER ASSEMBLY - BUSHING GATE STEM - UPPER	In Stock	
HLK - HEADCOVER ASSEMBLY - BUSHING GATE STEM - LOWER	In Stock	
HLK - HEADCOVER ASSEMBLY - Bushing Upper	In Stock	
HLK - HEADCOVER ASSEMBLY - SEAL TURBINE	In Stock	
HLK - HEADCOVER ASSEMBLY - SEALWICKET GATE	In Stock	
HLK - IMPELLER,DEWATERING PUMP	In Stock	
HLK - IN FRAZIL ICE SYS - INTAKE - TRANSMITTER, TEMPERATURE	In Stock	
HLK - INSERT, COMPAIR 38275	In Stock	
HLK - INTAKE HEADGATE AND HOIST EQUIP - Pressure Druk	In Stock	
HLK - ISOLATED PHASE BUS - PT Fuse	In Stock	
HLK - MECHANICAL GOVERNOR CONTROLS - Motor Limit	In Stock	
HLK - MECHANICAL GOVERNOR CONTROLS - Motor Speeder	In Stock	
HLK - MECHANICAL GOVERNOR CONTROLS - Unloader Timing Valve	In Stock	
HLK - METER, FLOW BARTON	In Stock	



Critical Spare Component	Stock Status	Comments
HLK - MODULE, ANALOG QUANTUM	In Stock	
HLK - MODULE, CPU MODICON	In Stock	
HLK - MODULE, DISCRETE IN	In Stock	
HLK - MODULE, DISCRETE OUT	In Stock	
HLK - MODULE, ETHERNET QUANTUM	In Stock	
HLK - MODULE, GPS QUANTUM	In Stock	
HLK - MODULE, HOT STANDBY	In Stock	
HLK - MODULE, INTERFACE PLC	In Stock	
HLK - MODULE, RACK FILLER	In Stock	
HLK - MODULE, RELAY OUT	In Stock	
HLK - OPERATING RING - Bearing Pads	In Stock	
HLK - PANEL, CONTROL SCP/CCP	In Stock	
HLK - PANEL, VOLTAGE ADJUSTER	In Stock	
HLK - PLATE, TERMINAL 3 POLE	In Stock	
HLK - PLATE, TERMINAL 6 POLE	In Stock	
HLK - PMG Speed Switch Bracket	In Stock	
HLK - POWER DISTRIBUTOR, ASSY	In Stock	
HLK - POWER SUPPLY, 125-24 Vdc	In Stock	
HLK - POWER SUPPLY, 125 Vdc	In Stock	
HLK - POWER SUPPLY, 125 Vdc 8 A	In Stock	
HLK - POWER SUPPLY, 24 Vdc	In Stock	
HLK - POWER SUPPLY, CP-C-24/10.	In Stock	
HLK - RECTIFYING TRANSFORMER	In Stock	
HLK - RELAY, CONTROL 120 V 60 HZ	In Stock	
HLK - RELAY, CONTROL 48 V	In Stock	
HLK - RELAY, CONTROL AB 500F-A0D92	In Stock	
HLK - REMOTE I/O HEAD, MODICON	In Stock	
HLK - RING SET ASSY, COMPAIR 48	In Stock	
HLK - RING SET, COMPAIR 45237	In Stock	
HLK - RING SET, WORTH P04643-10	In Stock	
HLK - RING/GASKET KIT, IR 32133944	In Stock	
HLK - Rotor - Pole	In Stock	
HLK - Rotor Assembly - HLK Generator - Rotor Pole	In Stock	
HLK - SEAL, COMPAIR 13254	In Stock	
HLK - SEAT/SEAL KIT, VALVE 1-1/	In Stock	
HLK - SERVOMOTOR #1 - Servomotor Repair Kit	In Stock	
HLK - SERVOMOTOR ASSEMBLY - Shear Pins	In Stock	
HLK - Slipring	In Stock	
HLK - Slipring /Brush Rigging - Brush Holder	In Stock	
HLK - Slipring /Brush Rigging - Carbon Brush	In Stock	
HLK - SOLENOID, GENERATOR AIR VALVE	In Stock	
HLK - STATION SERVICE SWITCHGEAR - Breaker (EATON)	In Stock	
HLK - STATOR ASSEMBLY - Stator Bars	In Stock	

Critical Spare Component	Stock Status	Comments
HLK - STATOR ASSEMBLY - Stator Connection Caps	In Stock	
HLK - STATOR WINDINGS - UNIT 1 - Robel Bars	In Stock	
HLK - SURFACE AIR COOLERS	In Stock	
HLK - SWITCH, LIMIT AB 802T-ATP	In Stock	
HLK - SWITCH, LIMIT AB 802T-DTP	In Stock	
HLK - SWITCH, MERCROID TYPE C-4	In Stock	
HLK - SWITCH, PRESS OIL ALARM	In Stock	
HLK - THRUST BEARING SEGMENTS (SET) - Thrust Bearing Segments	In Stock	
HLK - THRUST PIN ASSY, IR 32218406	In Stock	
HLK - Thrust/Guide Bearing Coolers	In Stock	
HLK - Thrust/Guide Bearing Coolers - Hi Pressure Lift Pump	In Stock	
HLK - TURBINE - BEARING SEGMENT TURBINE	In Stock	
HLK - TURBINE - Carbon Seal	In Stock	
HLK - TURBINE - Dowel	In Stock	
HLK - TURBINE - Eccentric Pin	In Stock	
HLK - TURBINE - Friction Hub	In Stock	
HLK - TURBINE - Friction Hub	In Stock	
HLK - TURBINE - Link Pin	In Stock	
HLK - TURBINE - Link Thick	In Stock	
HLK - TURBINE - Link Thin	In Stock	
HLK - TURBINE - Packing Box	In Stock	
HLK - TURBINE - PLATE BEARING	In Stock	
HLK - TURBINE - SEAL TURBINE	In Stock	
HLK - TURBINE - Wicket Gate Lever	In Stock	
HLK - TURBINE - Wicket Gate Seal	In Stock	
HLK - TURBINE GUIDE BEARING - BEARING, Segment TURBINE	In Stock	
HLK - UPPER GUIDE BEARING COOLER	In Stock	
HLK - UPPER GUIDE BEARING SEGMENTS - Upper Guide Bearing Segments	In Stock	
HLK - VALVE & SPRING SET, 45245	In Stock	
HLK - VALVE ASSEMBLY 55 GA	In Stock	
HLK - VALVE ASSY, COMPAIR 47935	In Stock	
HLK - VALVE ASSY, COMPAIR 47936	In Stock	
HLK - VALVE ASSY, COMPAIR 48141	In Stock	
HLK - VALVE ASSY, COMPAIR 50681	In Stock	
HLK - VALVE,SOL 4-WAY SKINNER	In Stock	
HLK - VALVE/GASKET KIT, IR 32133936	In Stock	
HLK - VOLTAGE ADJUSTER	In Stock	
HLK - WICKET GATES - Wicket Gate	In Stock	
HLK - XFMR, PT 600 VOLT 3 PHASE	In Stock	
HLK- Turbine Bearing Cooler	In Stock	
PRV - Bearing, Lower Guide	In Stock	
PRV - Bearing, Upper Guide	In Stock	
PRV - Bearing, Upper Thrust	In Stock	

Critical Spare Component	Stock Status	Comments
PRV - BLOCK POWERTRAC,115VAC/1	In Stock	
PRV - COIL, GE 22-115-045-01	In Stock	
PRV - CONTACTOR, FIELD FLASHING	In Stock	
PRV - DIODE, GE 4001A1158JA	In Stock	
PRV - DIODE, GE 4001A1158JB	In Stock	
PRV - DIODE, GE 6RT44UV698-8841	In Stock	
PRV - MAGNETROL, D-B10-1GBA-ABM	In Stock	
PRV - METER, FLOW OMEGA FL-6318B	In Stock	
PRV - METER, FLOW WATER 1000#	In Stock	
PRV - MOTOR, GOVERNOR PUMP	In Stock	
PRV - Pad, Guide Bearing	In Stock	
PRV - PLC CPU Module	In Stock	
PRV - PLC Ethernet Module	In Stock	
PRV - PLC Power Supply	In Stock	
PRV - PUMP, PH PVP1630-R212	In Stock	
PRV - TACHOMETER, TAK PAK 3	In Stock	
USL - BEARING, BOWL - Drainage	In Stock	
USL - BEARING, BOWL - Unwatering	In Stock	
USL - BEARING, BIG END COMP #E02128	In Stock	
USL - BEARING, BIG END COMP #E02128	In Stock	
USL - BEARING, COMPAIR E05519	In Stock	
USL - BEARING, COMPAIR E05519	In Stock	
USL - BEARING, MAIN D/E	In Stock	
USL - BEARING, MAIN D/E	In Stock	
USL - BEARING, MAIN O/E	In Stock	
USL - BEARING, MAIN O/E	In Stock	
USL - BEARING, PACKING CONTAINER	In Stock	
USL - BELT, DRIVE COMPAIR 3VX850	In Stock	
USL - BELT, DRIVE COMPAIR 3VX850	In Stock	
USL - BELT, V 3V950	In Stock	
USL - BELT, V 3V950	In Stock	
USL - BRIDGE, THYRISTOR EG	In Stock	
USL - BUSHING, IMPELLER TAPERLOCK	In Stock	
USL - BUSHING, IMPELLER TAPERLOCK	In Stock	
USL - BUSHING, SIDE ROLLER	In Stock	
USL - BUSHING, SMALL END COM#LE02130	In Stock	
USL - BUSHING, SMALL END COM#LE02130	In Stock	
USL - BUSHING, WHEEL	In Stock	
USL - COIL, SULL 250018-971	In Stock	
USL - CROWBAR, ES	In Stock	
USL - FILTER, COOLANT (ELEMENT ONLY)	In Stock	
USL - GASKET KIT, IR X1453T47	In Stock	
USL - GASKET, COMPAIR E05516	In Stock	

Critical Spare Component	Stock Status	Comments
USL - GASKET, COMPAIR E05516	In Stock	
USL - GASKET, COMPAIR J201671	In Stock	
USL - GASKET, COMPAIR J201671	In Stock	
USL - GASKET, FLEXMASTER 250007-559	In Stock	
USL - GASKET, SULL 040517	In Stock	
USL - Governor Pump	In Stock	
USL - HEATER, GAIN 3.2 KW 575 V	In Stock	
USL - HEATER, GATE (DUCT BLOWE	In Stock	
USL - HEATER, SHEAVE BLOCK 1366 W	In Stock	
USL - JOINT KIT, COMPAIR 98504/1172	In Stock	
USL - JOINT KIT, COMPAIR 98504/1172	In Stock	
USL - JOINT, COMPAIR C202284	In Stock	
USL - JOINT, COMPAIR C202284	In Stock	
USL - JOINT, COMPAIR C202285	In Stock	
USL - JOINT, COMPAIR C202285	In Stock	
USL - JOINT, COMPAIR C202285-100	In Stock	
USL - JOINT, COMPAIR C202285-100	In Stock	
USL - JOINT, COMPAIR C202286	In Stock	
USL - JOINT, COMPAIR C202286	In Stock	
USL - JOINT, COMPAIR C202287	In Stock	
USL - JOINT, COMPAIR C202287	In Stock	
USL - POWER DISTRIBUTOR, ASSY	In Stock	
USL - REGULATOR KIT, SULL 250019-453	In Stock	
USL - RING KIT, COMPAIR 98477/1131	In Stock	
USL - RING KIT, COMPAIR 98477/1131	In Stock	
USL - RING, PISTON 1ST STAGE	In Stock	
USL - RING, PISTON 1ST STAGE	In Stock	
USL - SEAL, FLAT 22' LENGTH	In Stock	
USL - SEAL, J 22' LENGTH	In Stock	
USL - SEAL, J C/W 2 CORNERS	In Stock	
USL - SEAL, J C/W 4 CORNERS	In Stock	
USL - SWITCH, OIL LEVEL	In Stock	
USL - SWITCH, OIL LEVEL	In Stock	
USL - TRANSMITTER, PRESS 0-2.5MH20	In Stock	
USL - VALVE, REED 1ST STAGE	In Stock	
USL - VALVE, REED 1ST STAGE	In Stock	
USL - VALVE, REED 2ND STAGE	In Stock	
USL - VALVE, REED 2ND STAGE	In Stock	
USL - VARISTOR, EXCITER	In Stock	
USL- Governor Pump	In Stock	
USL- Rotor Rim Drive Keys	In Stock	
HLK - STN SERVICE TRANSFORMER (SST-1)	In Stock	