newfoundland labrador hydro
a nalcor energy company

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December 9, 2020

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 of Corporate Services & Board Secretary

Dear Ms. Blundon:

Re: Reliability and Resource Adequacy Study Review - 2020–2021 Winter Readiness Planning Report – Final Report

Further to correspondence received from the Board of Commissioners of Public Utilities ("Board") on October 13, 2016, correspondence from the Board dated March 5, 2020 requesting additional detail, and Board Order No. P.U. 14(2020) directing Newfoundland and Labrador Hydro ("Hydro") to file monthly updates on approved Holyrood Supplemental Capital Projects, please find enclosed Hydro's 2020–2021 Winter Readiness Planning Report – Final Report.

Should you have any questions, please contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

Shirley A. Walsh
Senior Legal Counsel, Regulatory
SAW/kd

Encl.

ecc: **Board of Commissioners of Public Utilities**
Jacqui Glynn
Maureen P. Greene, Q.C.
PUB Official Email

Newfoundland Power
Gerard M. Hayes
Kelly C. Hopkins
Regulatory Email

Consumer Advocate
Dennis M. Browne, Q.C., Browne Fitzgerald Morgan & Avis
Stephen F. Fitzgerald, Browne Fitzgerald Morgan & Avis
Sarah G. Fitzgerald, Browne Fitzgerald Morgan & Avis
Bernice Bailey, Browne Fitzgerald Morgan & Avis

Industrial Customer Group
Paul L. Coxworthy, Stewart McKelvey
Denis J. Fleming, Cox & Palmer
Dean A. Porter, Poole Althouse

Labrador Interconnected Group
Senwung Luk, Olthuis Kleer Townshend LLP
Julia Brown, Olthuis Kleer Townshend LLP

2020–2021 Winter Readiness Planning Report

December 9, 2020

A report to the Board of Commissioners of Public Utilities

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List of Appendices

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 2020–2021 winter season, addresses the following items as requested by the Board:

- 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;
- A description and schedule for all outstanding 2020 capital projects for Hydro's generating plant and transmission and terminal stations including progress on completion status to date and expected completion date;
- 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;
- The planned generation outage schedule for the period September to December 31, 2020 including an explanation for any planned outages extending beyond December 1, 2020;
- An update of critical spares assessment and procurement;
- The forecast loads and expected generation capacity and reserves (setting out the basis for calculation) for the upcoming winter, as of December 1, 2020, including capacity assistance agreements in place or planned; and,
- An identification of any risks that could impact the WR of assets as of December 1, 2020 and associated contingency plans.

This report also includes Hydro's Holyrood Supplemental Capital Projects – Monthly Update as per Board Order P.U. 14(2020). In that Order, the Board directed Hydro to file monthly updates on the status of the approved capital projects from June 2020 to September 2020 and thereafter to provide updates as part of the WR reports filed in October 2020, November 2020, and December 2020.

Except where otherwise noted, information presented in this report covers both the Island Interconnected System and the Labrador Interconnected System as of December 1, 2020.[1]

2.0 Annual Work Plan and Winter Readiness Status

Hydro's AWP integrates all planned activities for the year (i.e., corrective maintenance ("CM"), preventive maintenance ("PM"), and capital project support) that are critical to safe and reliable production and transmission of electricity. Hydro regularly measures the progress of its AWP execution, in comparison with the plan, and is able to track the AWP status down to the level of individual work plan items. The individual AWPs for various assets are incorporated into an integrated AWP. While some AWP activities are planned for completion through December 2020, those tagged as WR activities were planned for completion by December 1, 2020.

This report provides a consolidated summary of operation and maintenance progress, both for the entire AWP (i.e., first chart in each set) and the WR tasks (i.e., second chart in each set), as of December 1, 2020, for each of the following areas of operations:

- Holyrood Thermal Generating Station ("Holyrood TGS"):
  - Units 1, 2, and 3; and
  - Balance of Plant including black start diesels.
- Gas Turbines:
  - Holyrood;
  - Hardwoods;
  - Stephenville; and
  - Happy Valley.
- Hydraulic Generation:
  - Bay d'Espoir;
  - Cat Arm;
  - Hinds Lake;

[1] The data used to generate the status charts in Section 2 reflect a data cutoff date of November 30, 2020.

- Paradise River;
- Upper Salmon; and
- Granite Canal.

- Transmission and Rural Operations for the Island Interconnected System and Labrador Interconnected System:
  - Transmission; and
  - Terminal Stations.
- Network Services.

Each chart in Section 2 includes the completed and remaining operations and maintenance AWP and WR tasks, as well as an indication of the planned task completion target to date. A text box adjacent to each chart set indicates Hydro's completion status as of December 1, 2020 in relation to AWP and WR activities (i.e., Green: On Target, Yellow: Caution – Recovery Required, Red: Target Will Not be Fully Met). Relevant highlights are also provided.

Refer to Section 3 and Appendix A for the status of capital projects that include additional WR tasks.

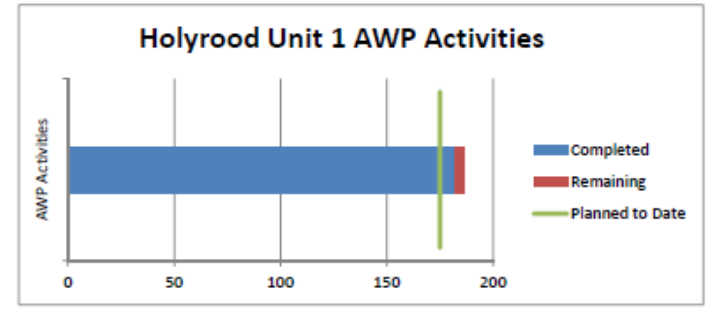
2.1 COVID-19 Impacts and Management of Change

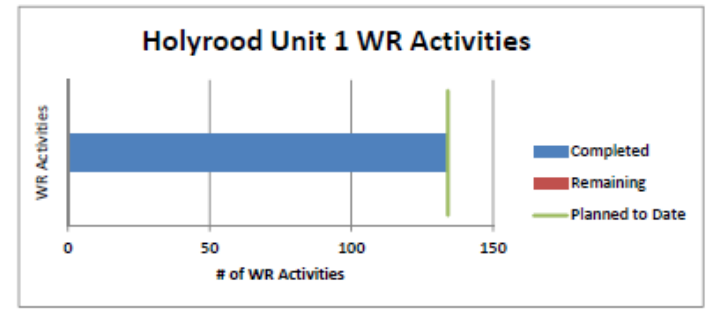
The 2020 AWP was established prior to the emergence of the COVID-19 pandemic. In response to the pandemic, Hydro implemented business continuity plans and protocols for work execution to maintain its ability to complete essential work to ensure service reliability throughout the remainder of the year.

Late in the first quarter of 2020, Hydro reviewed and prioritized its AWP to ensure completion of all essential operating and capital work in light of the pandemic. As the pandemic continued to evolve through the year, the review and prioritization process continued. In some cases, Hydro has rescheduled work to ensure effective execution at a later time than originally planned in 2020. Where work is considered for cancellation or deferral beyond 2020, Hydro utilizes a Management of Change ("MOC") process to ensure risks are properly assessed and mitigation plans established and executed where required to maintain system reliability.

2.2 Thermal Generation

The status of AWP and WR execution at the Holyrood TGS is summarized in the charts below. As noted, all planned 2020 WR work was completed by December 1, 2020.





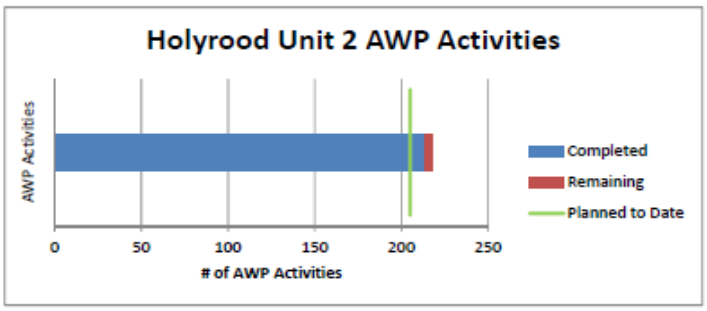
Holyrood Unit 1

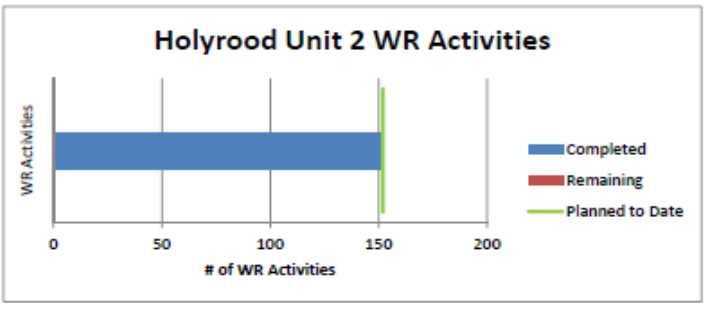
Completion Status:

Target Achieved

Comments and Schedule Notables:

- Unit 1 overall AWP completion status is 98% to date.
- Unit 1 planned WR status is 100% complete for 2020.





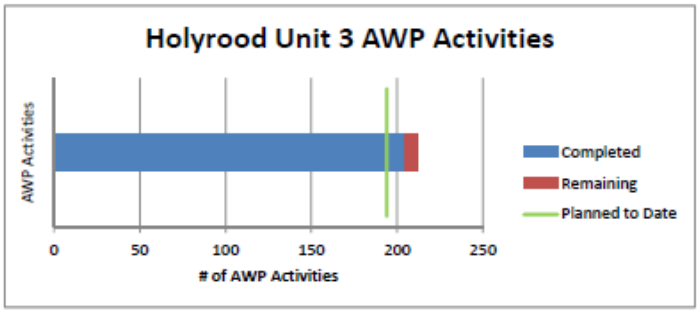
Holyrood Unit 2

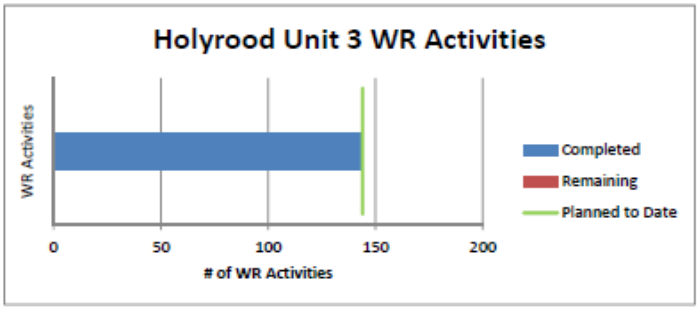
Completion Status:

Target Achieved

Comments and Schedule Notables:

- Unit 2 overall AWP completion status is 98% to date.
- Unit 2 planned WR status is 100% complete for 2020.





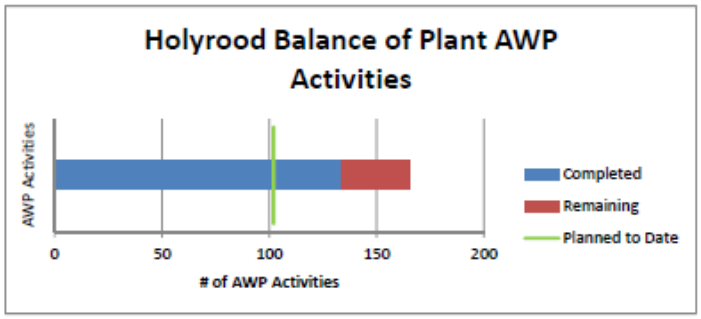
Holyrood Unit 3

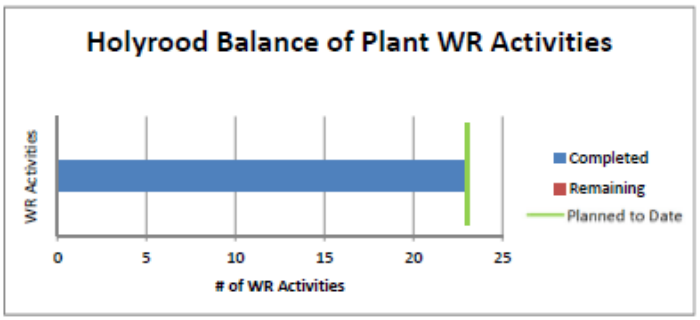
Completion Status:

Target Achieved

Comments and Schedule Notables:

- Unit 3 overall AWP completion status is 97% to date.
- Unit 3 planned WR status is 100% complete for 2020.





Holyrood Balance of Plant

Completion Status:

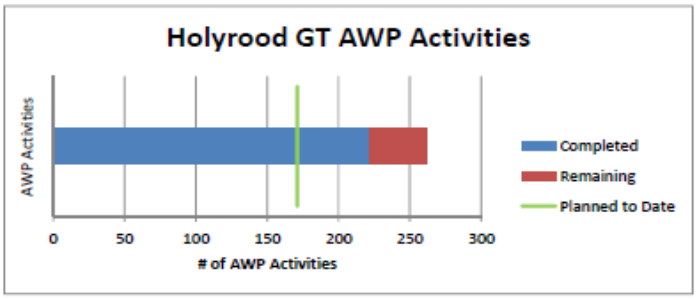
Target Achieved

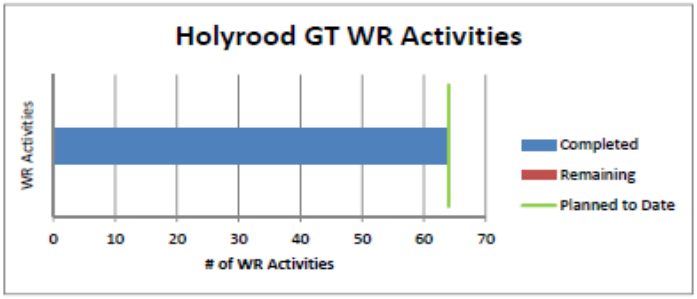
Comments and Schedule Notables:

- Balance of Plant overall AWP completion status is 81% to date.
- Balance of Plant planned WR status is 100% complete for 2020.

2.3 Gas Turbine Generation

The current status of AWP and WR execution at the Holyrood, Hardwoods, Stephenville, and Happy Valley Gas Turbines is summarized in the following charts. Planned WR work for all gas turbines was completed by December 1, 2020.





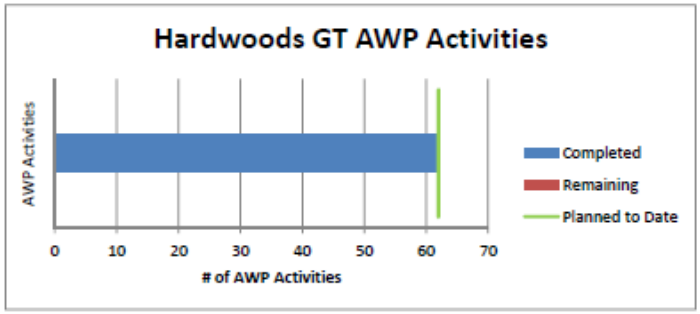
Holyrood Gas Turbine

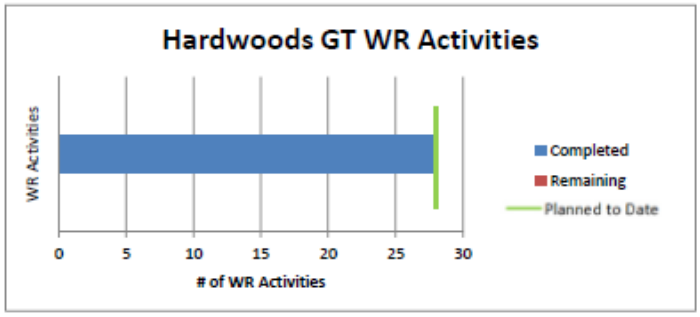
Completion Status:

Target Achieved

Comments and Schedule Notables:

- Holyrood Gas Turbine overall AWP completion status is 85% to date.
- Holyrood Gas Turbine planned WR status is 100% complete for 2020.





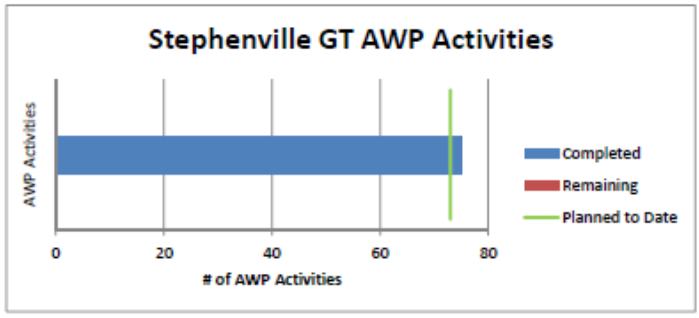
Hardwoods Gas Turbine

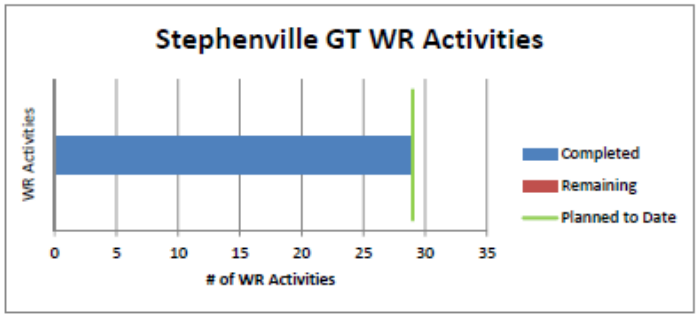
Completion Status:

Target Achieved

Comments and Schedule Notables:

- Hardwoods Gas Turbine overall AWP completion status is 100% to date.
- Hardwoods Gas Turbine planned WR status is 100% complete for 2020.





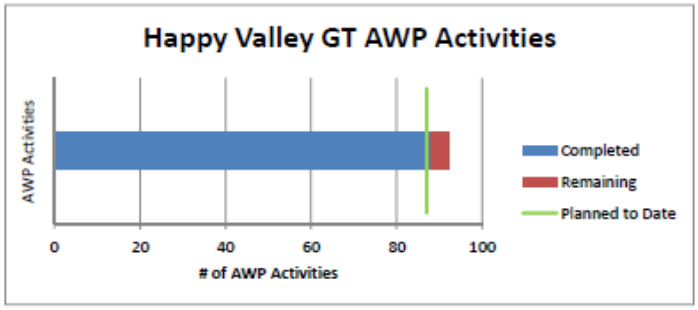
Stephenville Gas Turbine

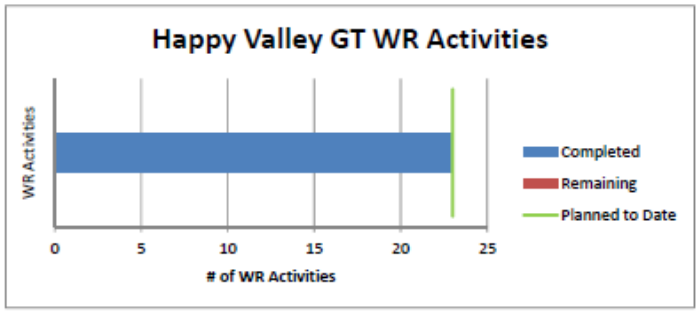
Completion Status:

Target Achieved

Comments and Schedule Notables:

- Stephenville Gas Turbine overall AWP completion status is 100% to date.
- Stephenville Gas Turbine planned WR status is 100% complete for 2020.





Happy Valley Gas Turbine

Completion Status:

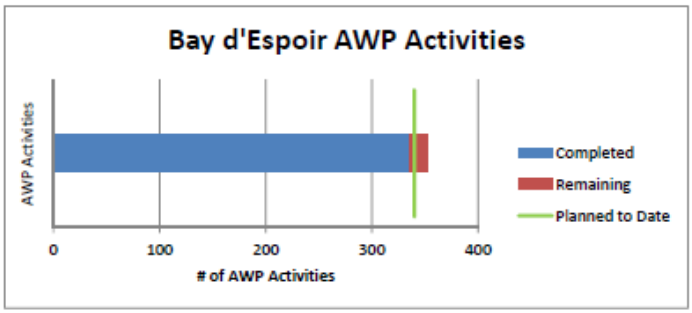
Target Achieved

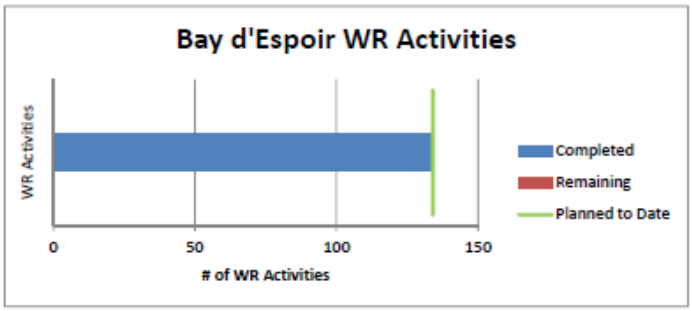
Comments and Schedule Notables:

- Happy Valley Gas Turbine overall AWP completion status is 96% to date.
- Happy Valley Gas Turbine planned WR status is 100% complete for 2020.

2.4 Hydraulic Generation

The current status of AWP and WR execution at Bay d'Espoir and other hydraulic generation facilities is summarized in the charts below. Planned WR work for all hydraulic generation facilities was completed by December 1, 2020.





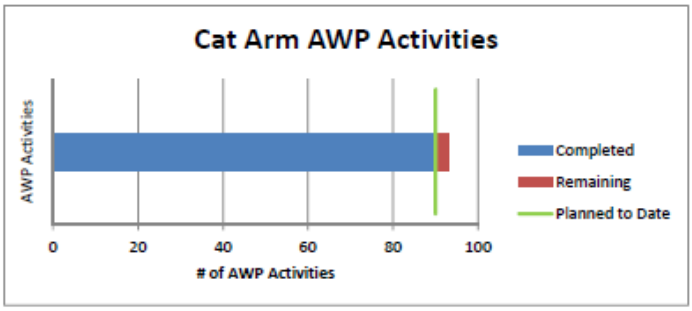
Bay d'Espoir Hydraulic Units

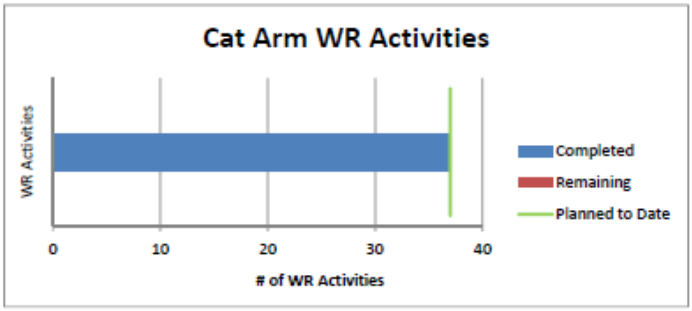
Completion Status:

Target Achieved

Comments and Schedule Notables:

- Bay d'Espoir overall AWP completion status is 95% to date.
- Bay d'Espoir planned WR status is 100% complete for 2020.





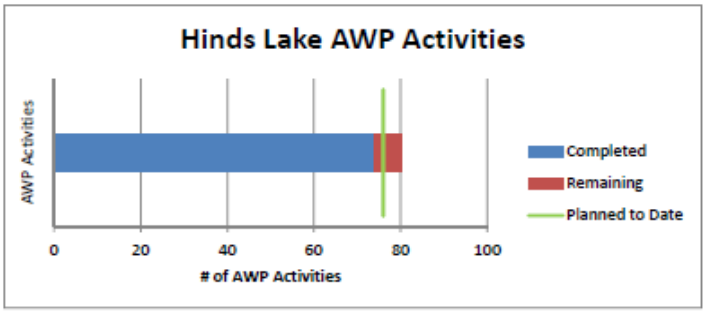
Cat Arm Hydraulic Units

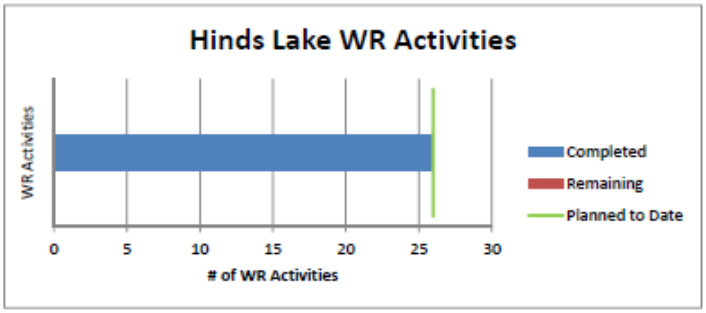
Completion Status:

Target Achieved

Comments and Schedule Notables:

- Cat Arm overall AWP completion status is 97% to date.
- Cat Arm planned WR status is 100% complete for 2020.





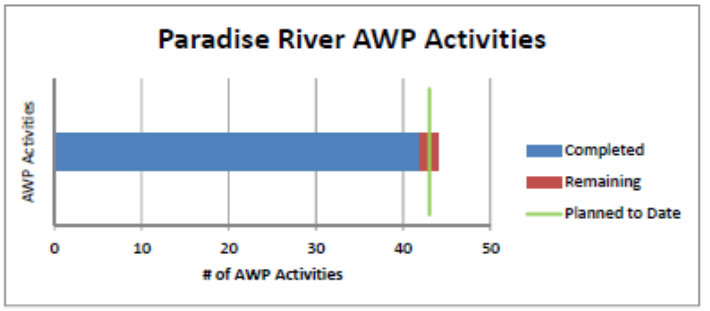
Hinds Lake Hydraulic Unit

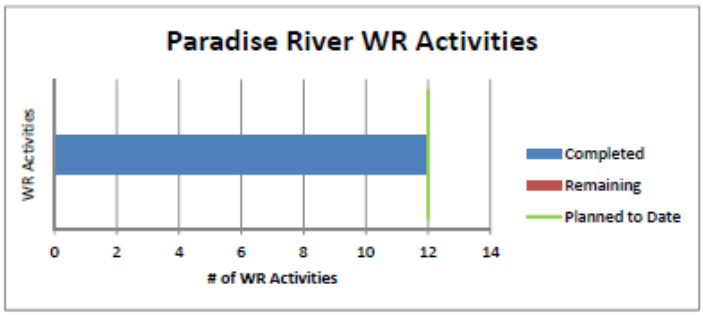
Completion Status:

Target Achieved

Comments and Schedule Notables:

- Hinds Lake overall AWP completion status is 93% to date.
- Hinds Lake planned WR status is 100% complete for 2020.





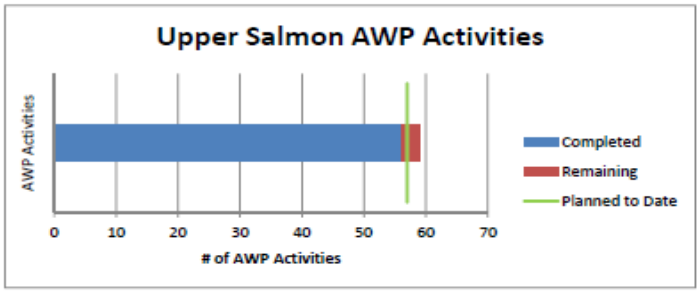
Paradise River Hydraulic Unit

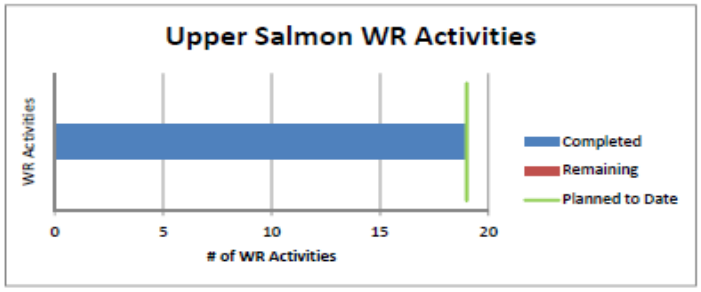
Completion Status:

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 2020.





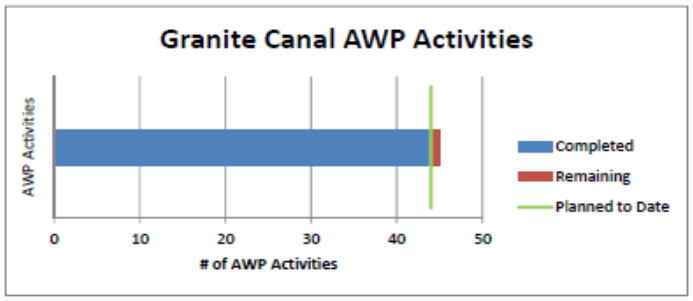
Upper Salmon Hydraulic Unit

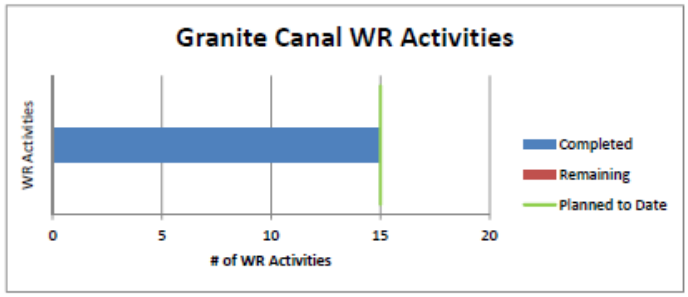
Completion Status:

Target Achieved

Comments and Schedule Notables:

- Upper Salmon overall AWP completion status is 95% to date.
- Upper Salmon planned WR status is 100% complete for 2020.





Granite Canal Hydraulic Unit

Completion Status:

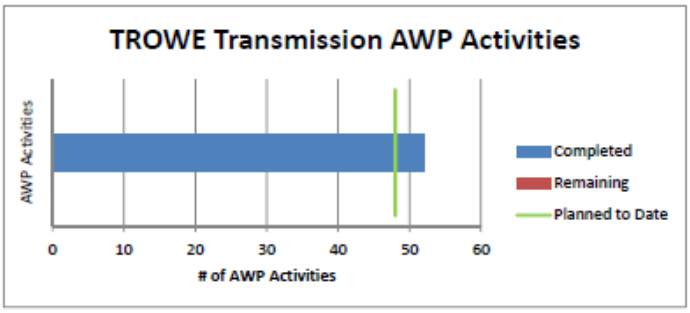
Target Achieved

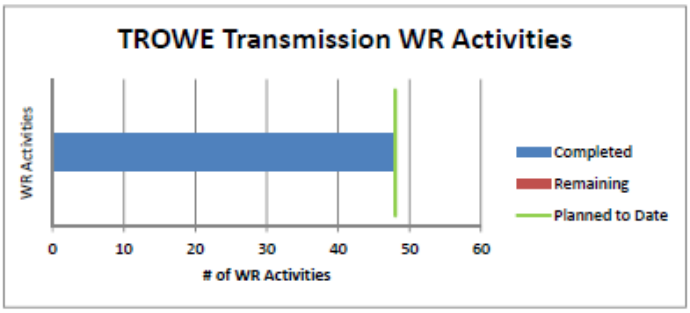
Comments and Schedule Notables:

- Granite Canal overall AWP completion status is 98% to date.
- Granite Canal planned WR status is 100% complete for 2020.

2.5 Transmission and Terminal Stations

The current status of AWP and WR execution for transmission line and terminal station facilities on both the Island Interconnected System and the Labrador Interconnected System is summarized in the charts below. Planned WR work for transmission and terminal stations was completed by December 1, 2020.





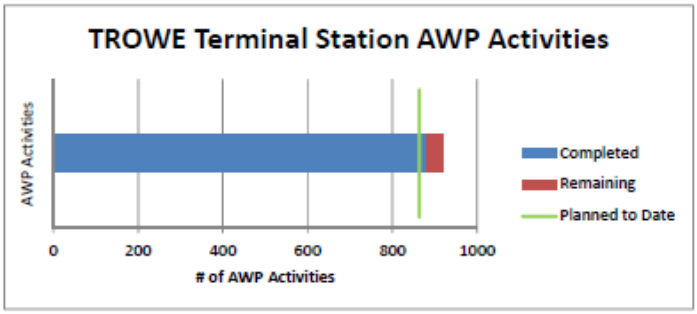
Transmission and Rural Operations West and East ("TROWE") - Transmission

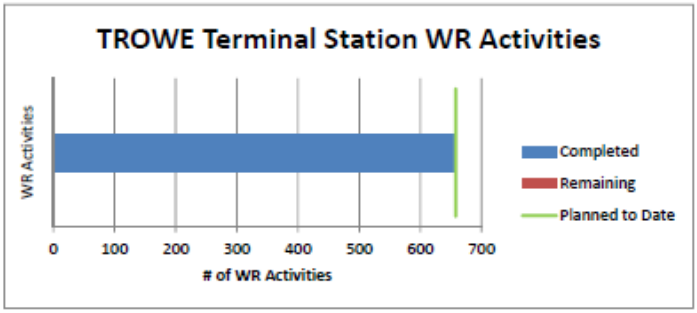
Completion Status:

Target Achieved

Comments and Schedule Notables:

- TROWE Transmission overall AWP completion status is 100% to date.
- TROWE Transmission planned WR status is 100% complete for 2020.





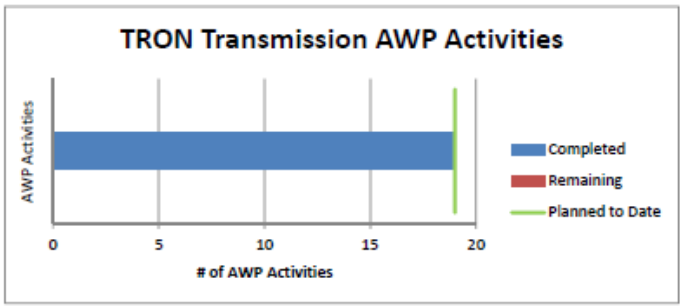
TROWE – Terminal Stations

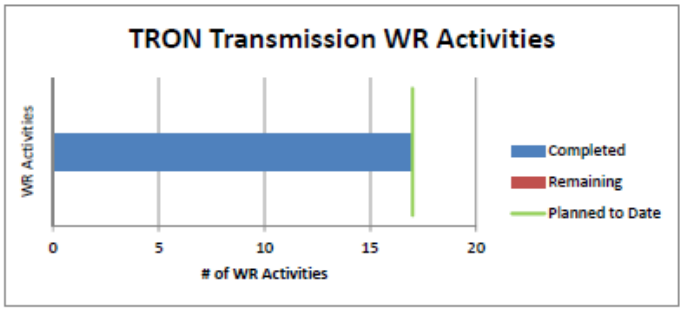
Completion Status:

Target Achieved

Comments and Schedule Notables:

- TROWE Terminal Stations overall AWP completion status is 96% to date.
- TROWE Terminal Stations planned WR status is 100% complete for 2020.





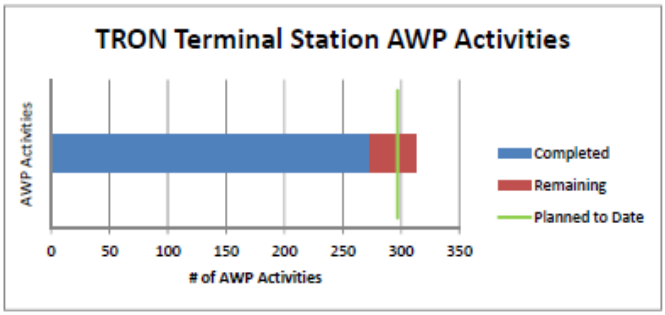
Transmission and Rural Operations Northern ("TRON") – Transmission

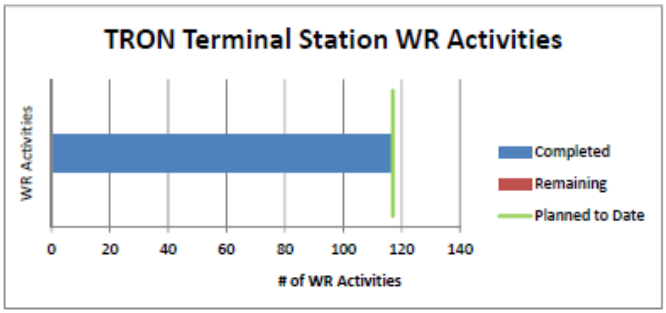
Completion Status:

Target Achieved

Comments and Schedule Notables:

- TRON Transmission overall AWP completion status is 100% to date.
- TRON Transmission WR status is 100% complete for 2020.





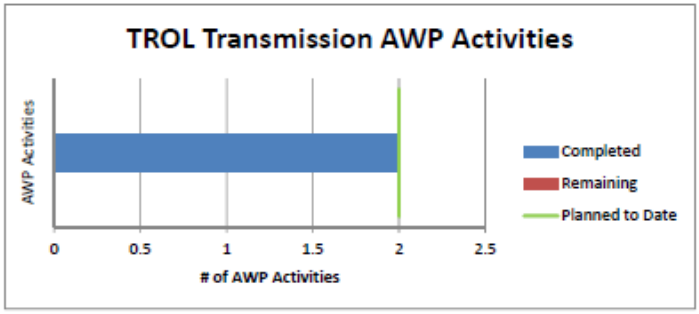
TRON – Terminal Station

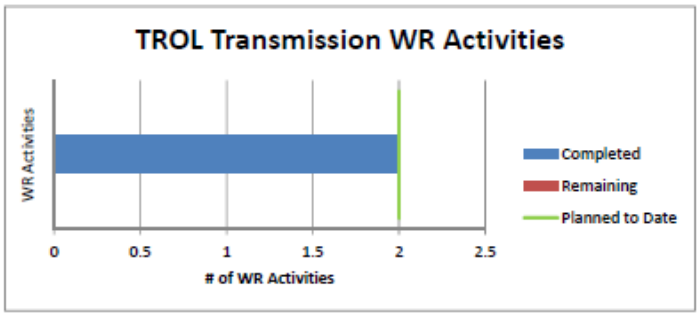
Completion Status:

Target Achieved

Comments and Schedule Notables:

- TRON Terminal Stations overall AWP completion status is 88% to date.
- TRON Terminal Stations WR status is 100% complete for 2020.





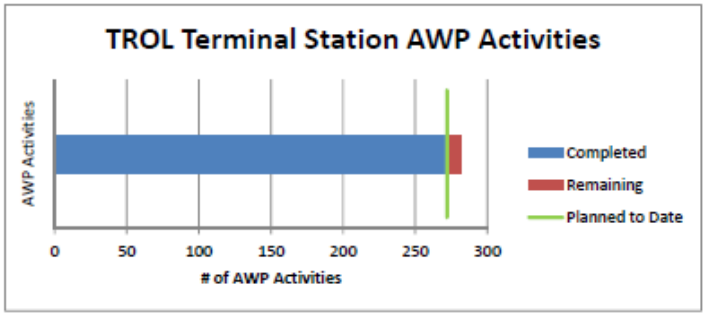
Transmission and Rural Operations Labrador ("TROL") – Transmission

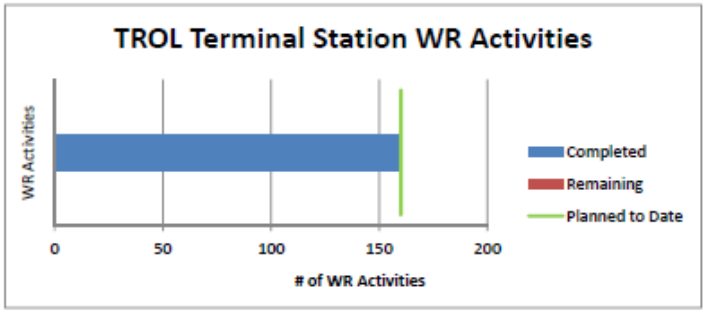
Completion Status:

Target Achieved

Comments and Schedule Notables:

- TROL Transmission overall AWP completion status is 100% complete to date.
- TROL Transmission WR status is 100% complete for 2020.





TROL – Terminal Stations

Completion Status:

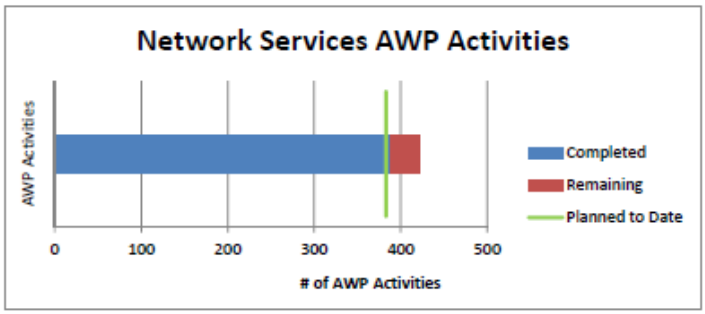
Target Achieved

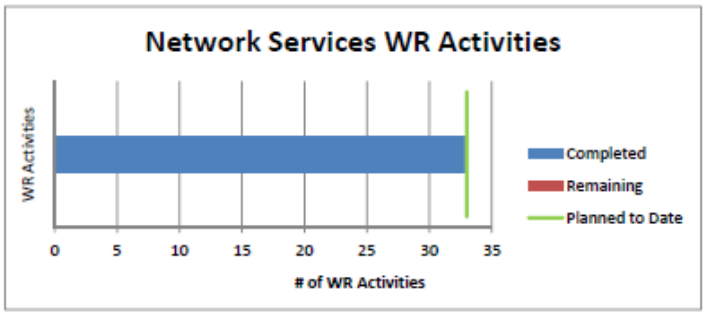
Comments and Schedule Notables:

- TROL Terminal Stations overall AWP completion status is 97% to date.
- TROL Terminal Stations WR status is 100% complete for 2020.

2.6 Network Services

The current status of AWP and WR execution for Network Services is summarized in the charts below. All planned WR activities were completed by December 1, 2020.





Network Services

Completion Status:

Target Achieved

Comments and Schedule Notables:

- Network Services overall AWP completion status is 92% to date.
- Network Services WR status is 100% complete for 2020.

3.0 Status of Winter Readiness for Capital Projects

Appendix A of this report provides the status of 2020 planned capital projects that include scope related to 2020–2021 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 December 1, 2020	Incomplete, Expected Completion after December 1, 2020	Total
Hydraulic Generation	2	0	**2**
Thermal Generation	4	0	**4**
Gas Turbine Generation	0	0	**0**
Terminal Stations	0	0	**0**
Transmission	0	0	**0**
Total	**6**	**0**	**6**

As of December 1, 2020, the WR scope for all six capital projects is complete. For details on the status of the Holyrood TGS supplemental projects please see the monthly update provided in Appendix H.[2]

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

4.1 Thermal Generation

WR testing of generating equipment in Thermal Generation is focused primarily around annual unit maintenance outages. Following these annual outages, units are run up and synchronized and all systems are verified before the unit's operating status is determined and preparedness is confirmed. Unit load tests are performed at this time as well. It can take a period of time for system conditions to allow for all required load testing. The WR testing protocol includes the testing of appropriate Balance of Plant components, including the black start diesel generators.[3]

The current status of equipment/plant testing for Thermal Generation is indicated in Appendix B of this report. There are three items that are not checked off in Appendix B due to required corrective maintenance. These are low priority items that are not required for WR and do not impact the reliability of the units or the ability to achieve full load. These items are described below.

For balance of plant equipment, one stationary air compressor is not available due to work in progress to correct found deficiencies; however, there is a rental compressor in place to ensure that all required air is available and this rental will remain on site until all plant compressors are fully back in service. On Unit 3, there is work in progress on the low pressure feedwater heater drains pumps. These pumps are

[2] "Holyrood Supplemental Capital Projects – Monthly Update" as per Board Order P.U. 14(2020).
[3] 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 are also tested and confirmed.

not required for Unit 3 to run reliably at full load. For all three units, there are issues with the seal oil vacuum pumps and Hydro is working to resolve these issues. These pumps are not required for the units to run reliably at full load. From a WR perspective, Hydro considers the Appendix B checklist complete and all units fully ready for winter operation.

Consistent with the generation outage schedule shown in Appendix D, all three units have been returned to service for the winter operating season and are considered fully available. Unit 1 and Unit 2 have been tested to 160 MW, which was the maximum load permitted by system constraints at the time. Based on the results of this testing, full load capability is expected for both units and will be confirmed through load tests when the system allows. Unit 3 has been run to its full load of 150 MW.

4.2 Gas Turbine Generation

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

- PMs and CMs for major components and auxiliary systems;
- Black start testing;
- Monthly operational testing; and
- Execution of capital upgrades and refurbishment.

AWP charts, which include WR activities, are shown in Section 2.2 of this report. Black start testing has been successfully completed for all gas turbines.

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

4.3 Hydraulic Generation

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

The current status of equipment/plant testing for Hydraulic Generation is indicated in Appendix C of this report. All inspection and testing of the hydraulic generation facilities has been completed.

4.4 Transmission and Terminal Stations

4.4.1 Transmission

The summary of maintenance, refurbishment, and replacement criteria that Hydro uses for its transmission lines was included in the "Transmission and Terminal Station Asset Management Execution Report."[4] The report includes criteria for Wood Pole and Steel Structure Line Management Programs, helicopter patrols, ground patrols, infrared inspections, wood pole treatment, and right-of-way maintenance.

4.4.2 Terminal Stations

The "Terminal Station Asset Management Overview" document includes the maintenance, refurbishment, and replacement criteria used by Hydro for Terminal Station assets. Version 5 of this document was included in the Terminal Station Refurbishment and Modernization project report in Hydro's "2021 Capital Budget Application."[5]

Since August 2018, Hydro has experienced four circuit breaker failures at the Bay d'Espoir terminal station. Refer to Section 8 for commentary.

4.4.3 Transmission and Terminal Station Testing

The AWPs 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:

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

[4] "Transmission System and Terminal Station Asset Management Execution Report," Newfoundland and Labrador Hydro, May 11, 2020.
[5] "2021 Capital Budget Application," Newfoundland and Labrador Hydro, rev 1, August 7, 2020 (originally filed on August 4, 2020), vol II, tab 9.

AWP charts, which include WR activities, are shown in Section 2.4 of this report. All WR activities were completed by December 1, 2020.

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, 2020.

5.0 Generation Outage Schedule

Hydro's 2020 Master Generation Outage Schedule for the period September 1 to December 31, 2020 is attached to this report as Appendix D.

There were no planned outages of generation equipment extending beyond December 1, 2020.

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 a part 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, 2020, for the 2020–2021 winter season. This update includes a detailed listing of critical spares requirements for each area of generation operations and the status of each item.

6.2 2020–2021 Winter Season

Hydro's critical spares status leading into the 2020–2021 winter season is strong. For Thermal Generation (Appendix E), Gas Turbines (Appendix F), and Hydro Generation (Appendix G), a total of 2,459 critical spares have been identified by Hydro's three generation operations areas. Of this total, 2,454 items are in stock (99.8%) and five items are on order and were not delivered by December 1, 2020.

Hydro will provide an update on the delivery of the five remaining items in January, 2021. These items are discussed further below.

6.2.1 Thermal Generation

As summarized in Table 2, there are three critical spare stock items currently not in stock. Two are new spare items that have been consumed since the previous report and now require replacement. These new items are a failed PT fuse from Unit 3 and the boiler feed pump volute assembly from the Unit 1 boiler feed pump failure on October 25, 2020. The other item is an Oxygen probe and was mentioned in the previous WR report. The vendor has since confirmed a delivery date of February 1, 2021.

The risk associated with these spares is considered to be low. Failure of a PT fuse on line is considered to be very unlikely. Should a fuse fail in service, Unit 3 could be kept on line. However, it may be difficult or impossible to restart the unit should it have to come off line for any other reason. The expected delivery date for the fuse is January 18, 2021. Failure of an oxygen probe is also considered to be very unlikely. Each boiler has two oxygen probes and can be operated with one out of service, so a failure would result in a loss in redundancy until the spare arrives. The spare oxygen probe is expected to be delivered on February 1, 2021. The pump volute assembly is being refurbished by Hydro's major pump service provider in Ontario (see Section 8 for further information).

The complete list of critical spares for Holyrood TGS is provided in Appendix E. Note that this list contains three Inventory Status descriptions: "In-Stock," "Non-Stock," and "On Order." "In-Stock" means that the part is in inventory, "Non-Stock" means that the part is critical but it is not necessary to keep it in stock (e.g., because the part is readily available locally), and "On Order" means that the part is required to be in-stock but is not. For the "Non-Stock" parts, an explanation of the reason why it is "Non-Stock" is provided in the "Notes" column in Appendix E.

Table 2: Critical Spares for Thermal Generation

Critical Spare Items	Quantity
In Stock	755
On Order	3
Not Yet On Order	0
Total	**758**

6.2.2 Gas Turbines

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

Table 3: Critical Spares for Gas Turbine Generation

Critical Spare Items	Hardwoods/Stephenville	Holyrood	Total
In Stock	89	403	492 (100%)
On Order	0	0	0
Not Yet On Order	0	0	0
Total	**89**	**403**	**492**

The spares list for the Hardwoods and Stephenville Gas Turbines is detailed in Appendix F and contains the critical spares identified for these units. This list contains 89 critical spare parts, all of which were in stock by December 1, 2020.

The spares list for the Holyrood Gas Turbine is also detailed in Appendix F and includes the critical spares for this unit. This list contains 403 critical items, all of which were in stock by December 1, 2020.

6.2.3 Hydraulic Generation

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

Table 4: Critical Spares for Hydraulic Generation

Critical Spare Items	Quantity
In Stock	1,207
On Order	2
Not Yet On Order	0
Total	**1,209**

The two outstanding items are spare potential transformers for Cat Arm and Granite Canal. In consultation with the OEM, a late revision to the Cat Arm potential transformer specification was made

to allow its use as a direct replacement spare. This change, along with general procurement challenges related to COVID-19, has impacted the delivery timeline.

Both transformers are now expected to be delivered by January 31, 2021. Delay in delivery of these items will not affect unit reliability as the risk of failure is considered low.

7.0 Near-Term Reliability and Resource Adequacy

This section discusses the near-term reliability and resource adequacy of the Newfoundland and Labrador Interconnected System for the upcoming winter period. It provides a summary of the analysis presented in Hydro's "Near-Term Reliability Report."[6]

The reliability indices in this near-term report include both annual and monthly Loss of Load Hours ("LOLH"), Expected Unserved Energy ("EUE"), and Normalized EUE[7] for the period of December 1, 2020 to May 31, 2021. The analysis considers the different types of generating units (i.e., thermal, hydro, and wind) in Hydro's fleet, contractual sales, transmission constraints, peak load, load forecast uncertainty, and capacity assistance programs. Similar to previous analyses, a range of projected availabilities was considered for the Holyrood TGS. A detailed discussion of the modelling approach used can be found in Hydro's "Near-Term Reliability Report."

Hydro filed an update of its assessment of near-term reliability and resource adequacy on November 18, 2020.

7.1 Assumptions

7.1.1 Asset Performance

Hydro updates its assumptions for forced outage rates for all generation assets on an annual basis.[8,9]

[6] "Near-Term Reliability Report," Newfoundland and Labrador Hydro, November 18, 2020.
[7] Normalized EUE provides a measure relative to the size of the assessment area. It is defined as: [(Expected Unserved Energy)/(Net Energy for Load)] x 1,000,000 with the measure of per unit parts per million.
[8] Forced outage rates are updated consistent with the Forced Outage Rates Methodology presented in "Reliability and Resource Adequacy Study – 2019 Update," Newfoundland and Labrador Hydro, November 15, 2019.
[9] In the Near-Term Reliability Report filed to the Board on November 18, 2020, Hydro deviated from the FOR methodology as outlined in the 2019 Update when selecting FORs for its hydroelectric units and for the Holyrood Gas Turbine ("Holyrood GT"). In both cases, Hydro believed the result of the prescribed methodology did not accurately represent the risk of unit outage. For the hydroelectric units, Hydro extended the capacity-weight average DAFOR from 3 to 5 years, increasing the FOR to more appropriately represent the risk of failure in the near term. For the Holyrood GT, Hydro used a scenario-based approach to estimate the FOR.

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

Table 5: Forced Outage Rates for Hydro-Owned Assets

Asset	Reliability Metric
Hydraulic Units	DAFOR[10] = 2.6%
Holyrood Thermal Units – Base Assumption	DAFOR = 15%
Holyrood Thermal Units – Sensitivity Assumptions	DAFOR = 18%, 20%
Holyrood Gas Turbine	DAUFOP[11] = 4.9%
Happy Valley Gas Turbine	DAUFOP = 12%
Stephenville Gas Turbine	DAUFOP = 30%
Hardwoods Gas Turbine	DAUFOP = 30%
Diesels	DAUFOP = 8%

For units not owned by Hydro, the forced outage rates used in Hydro's modelling are determined using industry averages.[12] Forced outage rates used in this analysis 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 = 8%
Corner Brook Cogen	DAUFOP = 17.48%

7.1.2 Labrador-Island Link Assumptions

In its correspondence dated March 5, 2020, the Board requested that Hydro's May 2020 Near-Term Generation Adequacy Report include a detailed plan and schedule describing all activities required to ensure winter 2020–2021 service reliability under the assumption that the LIL will not be available during some or all of that period. Hydro has reflected the Board's March request in the November 2020 Near-Term Adequacy Report as well. Therefore, it has been assumed that the LIL will not be available in advance of September 2021. If the LIL is available, even at the level of availability experienced in the winter of 2018–2019, it would have a significant positive impact on system reliability.

[10] Derated Adjusted Forced Outage Rate ("DAFOR").
[11] Derated Adjusted Utilization Forced Outage Probability ("DAUFOP").
[12] As provided in the CEA Generating Equipment Reliability Information System and the NERC Generating Availability Data System.

With respect to the LIL, once modelled as in service the forced outage rate is modelled with a declining forced outage rate in order to capture any testing activities and potential operational unknowns during the first years of operation.[13]

7.1.3 Availability of Capacity Assistance Agreements

Capacity assistance refers to curtailable loads and customer generation available to the utility under contract to provide capacity on an as needed basis. Hydro currently has an agreement with Corner Brook Pulp and Paper Limited for capacity assistance. The current agreement expires either on the earlier of April 30, 2022 or the commissioning of the Muskrat Falls Generating Station, ensuring the availability of this agreement to increase system reliability should the LIL be unavailable in either of the 2020–2021 or 2021–2022 winter operating seasons.

Hydro has also engaged Vale to provide capacity assistance from its diesel generators. The current agreement provides 7.6 MW of capacity assistance through the 2020–2021 winter operating season.

On November 16, 2020, Hydro entered into an interruptible agreement with Labrador Lynx as part of its Labrador East reliability plan for 2020–2021 winter season.

7.1.4 Availability of Maritime Link Imports

The Maritime Link is expected to be available to import energy during the 2020–2021 winter operating season. Since the in-service of the Maritime Link, Hydro has been successful in making economic purchases to economically offset the requirement to produce additional thermal energy. From September 2019 through March 2020, 311 GWh was imported over the Maritime Link through a combination of monthly agreements, day-ahead commitments, and real-time transactions. During this period, purchased energy was successfully delivered in more than 95% of scheduled hours offsetting higher cost thermal generation. While all of the market purchases to date have been made on an economic basis, these purchases have also provided system reliability benefits by reducing the requirements for operation at Holyrood TGS and standby generation.

Hydro can also purchase energy and capacity for economic reasons by doing short-term transactions or by making larger, longer term commitments. Therefore, import scenarios are contemplated as

[13] In year 1 of operation, the monopole forced outage rate is assumed to be 10% for each pole. The forced outage rate assumption decreases to 2.5% in year 2, 1% in year 3, and finally to the long-term forced outage rate of 0.556% per pole from year 4 onwards.

sensitivities to cases considered in this report. Hydro modelled firm imports of 50 MW and 100 MW from December 2020 to March 2021 with an associated forced outage rate intended to serve as proxy for anticipated potential interruptions to the import. Since the availability of these contracts depends on the availability of capacity from a third party to provide firm capacity, there is no guarantee that these contracts would be available. The analysis demonstrates the effect on the system if the capacity was available in the requested amounts.

7.2 System Energy Capability

In order to reliably serve its customers, Hydro maintains minimum storage limits to ensure that it is capable of meeting customer energy requirements. In the current system, these limits represent the point at which Holyrood generation would be required to be maximized to ensure Hydro could continue to meet customer requirements in consideration of the historical dry sequence. In early 2020, Hydro established minimum storage limits to April 30, 2021 in consideration of potential delays in the availability of the LIL to deliver energy to the Island Interconnected System. This will help ensure sufficient storage to reliably serve customers should the LIL continue to be delayed beyond the winter of 2020–2021.

The targets do not consider the availability of imports, though imports can provide an additional opportunity to supplement energy in storage and economically reduce the amount of thermal generation required to maintain sufficient energy in storage. Imports on the Maritime Link and thermal generation above minimum are available during the winter 2020–2021 operating season, if required. Otherwise, imports will be used to offset thermal generation to the extent that it is economically and technically feasible. At this point, Hydro does not foresee using production from standby generation to support reservoir levels. With the availability of thermal energy and access to external markets to provide the balance of load, the availability of energy in reservoir systems does not currently pose a risk to near-term resource adequacy. Regular assessments of storage at a reservoir level basis are also completed to ensure that each hydraulic generating unit remains capable of producing at full rated output through the winter period.

As of November 30, 2020, Hydro's total system energy in storage was 1,838 GWh, 493 GWh above the minimum storage limit of 1,345 GWh for November 2020. Figure 1 plots the 2019 and 2020 storage levels, minimum storage limits, maximum operating level storage, and 20-year average aggregate storage for comparison.

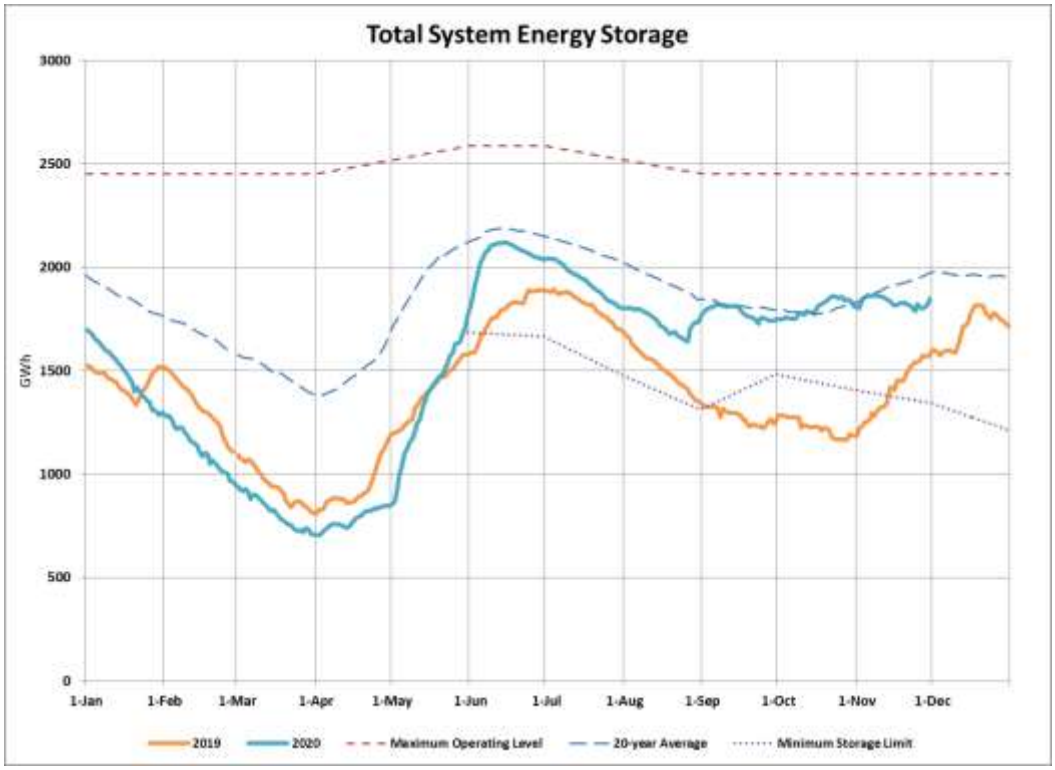


Figure 1: Total System Energy Storage for November 30, 2020

7.3 Load Forecast

An update to Hydro's near-term load forecast was provided in Hydro's Near-Term Reliability Report, filed on November 18, 2020.

Since the last load forecast update used in Hydro's May Report, Hydro has updated its Island Interconnected System utility load forecasts and received industrial power requests for 2021. Hydro relied on these inputs to determine a five-year forecast of customer energy and coincident demand for the Island Interconnected System, Labrador Interconnected System, and Newfoundland and Labrador Interconnected System. Changes in forecast Island Interconnected System load requirements since the filing of the May Report include a change to 2021 energy requirements associated with the known impacts of COVID-19,[14] and minor changes in forecast Island Interconnected System energy requirements across the remainder of the forecast period. Overall, the forecast Island Interconnected System utility power and energy requirements through the medium term continue to reflect a mostly

[14] Primarily reflects impact of the idled oil refinery at Come by Chance that is assumed to return to production prior to 2022. The impact on load resulting from a permanent closure of the refinery is approximately 28 MW, exclusive of losses. In accordance with the Board's communication of October 8, 2020, this case has been analyzed as a sensitivity to Hydro's base forecast.

stagnant outlook for the provincial economy. Details of Hydro's forecasts for the 2020–2021 winter operating season are provided in Table 7 through Table 9.

Table 7: 2020–2021 Island Interconnected System Load Forecast

	MW
Utility Requirements	1,476
Industrial Customers	152
Island Interconnected System Customer Coincident Demand	**1,628**
Island Interconnected System Transmission Losses and Station Service Requirements	71
Total Island Interconnected System Requirements (P50)	**1,699**
P90 Demand Adjustment	60
Total Island Interconnected System Requirements (P90)	**1,759**

Table 8: 2020–2021 Labrador Interconnected System Load Forecast

	MW
Utility Requirements	141
Industrial Customers	279
Labrador Interconnected System Customer Coincident Demand	**420**
Labrador Interconnected System Transmission Losses and Station Service Requirements	24
Total Labrador Interconnected System Requirements	**444**

Table 9: 2020–2021 Newfoundland and Labrador Interconnected System Load Forecast

	MW
Newfoundland and Labrador Interconnected System Customer Coincident Demand	2,048
Newfoundland and Labrador Interconnected System Transmission Losses and Station Service Requirements	95
Total Newfoundland and Labrador Interconnected System Requirements	**2,143**
Island Interconnected System P90 Demand Adjustment	60
Total Newfoundland and Labrador Interconnected System Requirements (including Island Interconnected System P90 Demand Adjustment)	**2,203**

7.4 Scenarios Considered and Results

The following subsections provide a description of the five scenarios considered for winter 2020–2021, and the anticipated system reliability in each case (i.e., LOLH, EUE, and normalized EUE results).

7.4.1 Scenarios

Five scenarios were analyzed to assess system reliability under a range of potential system conditions.

- **Scenario 1:** Assumes that the LIL will be available at full capacity in September 2021. This case assumes a DAFOR of 15% for the Holyrood TGS and the continued in-service of the Hardwoods and Stephenville Gas Turbines through the 2020–2021 winter operating season. No LIL deliveries are contemplated in advance of September 2021.
- **Scenario 2:** Varies from Scenario 1 by increasing the Holyrood TGS DAFOR to 18%.
- **Scenario 3:** Varies from Scenario 1 by increasing the Holyrood TGS DAFOR to 20%.
- **Scenario 4:** Varies from Scenario 3 by including 50 MW of imports all hours during the winter season.
- **Scenario 5:** Varies from Scenario 3 by including 100 MW of imports all hours during the winter season.

7.4.2 Expected Unserved Energy and Loss of Load Hours Analysis

Annual Assessment Results

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

Higher levels of LOLH and EUE are observed in all scenarios during 2021, resultant from the LIL being unavailable during the winter operating season, with exposure increasing as Holyrood TGS unavailability increases beyond 15%, as observed in the results of Scenarios 2 and 3. As demonstrated in Scenarios 4 and 5, imports over the Maritime Link could be used to mitigate the risk of generation shortfall. An import of 100 MW in on-peak hours from December to March would be sufficient to reduce the risk of generation shortfall to an acceptable level in the most onerous modelled scenario.

Note that these results show lower LOLH and EUE values than the May 2020 Report in comparable scenarios. This can mostly be attributed to a decreased peak load forecast, with slight changes in forced outage rates having smaller effects.

Table 10: Annual LOLH, EUE, and Normalized EUE Results[15]

Reliability Metric		
LOLH (hours)	**Dec 2020[16]**	**Jan–May 2021**
Scenario 1: LIL 2021, Holyrood TGS DAFOR = 15%	0.64	1.63
Scenario 2: LIL 2021, Holyrood TGS DAFOR = 18%	0.88	2.52
Scenario 3: LIL 2021, Holyrood TGS DAFOR = 20%	1.14	3.22
Scenario 4: LIL 2021, Holyrood TGS DAFOR = 20%, 50 MW imports	0.65	1.62
Scenario 5: LIL 2021, Holyrood TGS DAFOR = 20%, 100 MW imports	0.36	0.77
EUE (MWh)	**Dec 2020[17]**	**Jan–May 2021**
Scenario 1: LIL 2021, Holyrood TGS DAFOR = 15%	36	82
Scenario 2: LIL 2021, Holyrood TGS DAFOR = 18%	53	133
Scenario 3: LIL 2021, Holyrood TGS DAFOR = 20%	69	170
Scenario 4: LIL 2021, Holyrood TGS DAFOR = 20%, 50 MW imports	37	79
Scenario 5: LIL 2021, Holyrood TGS DAFOR = 20%, 100 MW imports	20	34
Normalized EUE (ppm)[18]	**2020**	**2021**
Scenario 1: LIL 2021, Holyrood TGS DAFOR = 15%	3.4	10.12
Scenario 2: LIL 2021, Holyrood TGS DAFOR = 18%	5.2	16.32
Scenario 3: LIL 2021, Holyrood TGS DAFOR = 20%	6.7	20.77
Scenario 4: LIL 2021, Holyrood TGS DAFOR = 20%, 50 MW imports	3.7	9.63
Scenario 5: LIL 2021, Holyrood TGS DAFOR = 20%, 100 MW imports	2.1	4.21

Monthly Assessment Results

Table 11 provides monthly analyses of LOLH and EUE, for each year by month. The monthly analyses provide additional detail that assists in examining the complexity of the changing power system that would not necessarily be apparent from an analysis of the annual results only. Completing monthly analyses allows for easier identification of changes in system behaviour. For example, if a system had a change in forecast peak demand with no resultant change in annual LOLH or EUE, the monthly analysis would indicate where differences in LOLH and EUE were anticipated, allowing for better understanding

[15] Results presented for 2020 are consistent with those presented in the "2020-2021 Winter Readiness Planning Report – November Update," as the November 2020 Near-Term Generation Adequacy Report did not include analysis for 2020.
[16] 2020 results for December only.
[17] Ibid.
[18] Normalized EUE is calculated on a full calendar year basis.

of the drivers of the annual results. This type of analysis is used by utilities regulated by North American Electric Reliability Corporation ("NERC") to complement long-term reliability assessments.

High values of LOLH and EUE are observed in all scenarios during the winter months of 2021 with both LOLH and EUE growing as the Holyrood TGS unavailability increases. As seen in Scenarios 4 and 5, the import of firm energy over the Maritime Link produces a significant improvement in system reliability. This demonstrates that firm imports could be used to mitigate the increased risk of resource shortfalls if the LIL is delayed or if the Holyrood TGS or other generating assets were to perform more poorly than expected.

Table 11: Monthly LOLH and EUE for 2020–2021[19]

LOLH (hours)	Dec	Jan	Feb	Mar	Apr	May
Scenario 1: LIL 2021, Holyrood TGS DAFOR = 15%	0.64	0.77	0.51	0.35	0.00	0.00
Scenario 2: LIL 2021, Holyrood TGS DAFOR = 18%	0.88	1.18	0.79	0.55	0.00	0.00
Scenario 3: LIL 2021, Holyrood TGS DAFOR = 20%	1.14	1.51	1.01	0.69	0.01	0.00
Scenario 4: LIL 2021, Holyrood TGS DAFOR = 20%, 50 MW imports	0.65	0.76	0.50	0.35	0.01	0.00
Scenario 5: LIL 2021, Holyrood TGS DAFOR = 20%, 100 MW imports	0.36	0.37	0.22	0.18	0.00	0.00

EUE (MWh)	Dec	Jan	Feb	Mar	Apr	May
Scenario 1: LIL 2021, Holyrood TGS DAFOR = 15%	36	39	28	18	0	0
Scenario 2: LIL 2021, Holyrood TGS DAFOR = 18%	53	63	41	29	0	0
Scenario 3: LIL 2021, Holyrood TGS DAFOR = 20%	69	81	52	37	0	0
Scenario 4: LIL 2021, Holyrood TGS DAFOR = 20%, 50 MW imports	37	39	23	17	0	0
Scenario 5: LIL 2021, Holyrood TGS DAFOR = 20%, 100 MW imports	20	16	10	8	0	0

[19] Results presented for 2020 are consistent with those presented in the "2020–2021 Winter Readiness Planning Report – November Update," as the November 2020 Near-Term Generation Adequacy Report did not include analysis for 2020.

8.0 Risk and Risk Mitigation

Hydro's readiness planning for the 2020–2021 winter season has progressed well and, with all WR activities complete, the company is readied for winter operations. No new risks have been identified since the previous report. Previously identified risks are updated in the following sections as required.

8.1 Bay d'Espoir Operations

Bay d'Espoir generation is fully available as of December 1, 2020. Three risks to reliable operations were previously identified for the upcoming winter season. One risk has been resolved and two remain.

8.1.1 Bay d'Espoir Penstocks

As a result of previous ruptures of the Bay d'Espoir penstocks, with the most recent being September 2019, Hydro implemented more frequent monitoring and inspections of Bay d'Espoir Penstocks 1, 2, and 3 to monitor penstock performance and ensure reliability in the short-term.

The inspection for Penstock 1 was completed in the summer of 2020 and did not identify any major defects or areas of concern. The inspection for Penstock 2 was completed on October 21, 2020 and did not identify any major defects or areas of concern. The inspection of Penstock 3, which was originally scheduled for completion in May 2020, was deferred to 2021 due to limitations associated with the onset of the COVID-19 pandemic. This decision was made in consultation with the consultant responsible for the penstock inspections and it was determined that Penstock 3 is safe for operation until the next scheduled inspection in 2021. Penstock 3 was last inspected in April 2019 with no major issues found and any items requiring attention were addressed at the time.

Hydro has taken proactive measures to reduce downtime should another penstock leak occur. Hydro has added to its inventory long lead pre-rolled steel plate, consulted with third-party contractors to confirm priority availability of local welding resources, and will mobilize an excavator to the penstock area in December 2020 to avoid potential transportation issues during winter months when the access roads can be snow covered and icy. Modifications to the Automatic Generator Control application in Hydro's Energy Management System, designed to limit the amount of rough zone operation, have also been implemented for Units 1 to 6 at Bay d'Espoir. A more prescriptive operating regime has been implemented for Units 1 and 2 given the history of Penstock 1. In this operating regime, once dispatched, Unit 1 and 2 are limited to a minimum unit loading of 50 MW and are not cycled or shut down as part of normal system operations.

Although Hydro has mitigated risk of failure to the extent possible, there is residual risk that a failure could occur before further life extension work[20] is executed. Hydro has estimated a 13 to 23 day repair timeline, depending on circumstances, should a new failure occur.

8.1.2 Bay d'Espoir Unit 1 Vibration

As noted in Hydro's "2020–2021 Winter Readiness – Preliminary Overview,"[21] higher than normal vibration levels were being experienced during operation of Unit 1 at loads between 55 and 65 MW. Hydro completed a four-day outage on September 11, 2020 to investigate the vibration issue and determined that the generator guide bearing required adjustment to improve clearances. During the outage these adjustments were completed, critical clearance measurements were taken, and bolt torque was checked on embedded parts. Completion of these activities successfully reduced the vibration levels of the unit into an acceptable range allowing for the removal of the previously imposed operating restriction within the 55–65 MW load range. Hydro continues to monitor the trending data of Unit 1. Monitoring results from September 12, 2020 to November 30, 2020 demonstrate that the vibration levels are consistently within the acceptable range and the unit can operate reliability over an extended duration suggesting the risk of encountering vibration issues has been mitigated. Hydro does not consider this a risk to reliability or availability for the 2020–2021 winter operating season.

8.1.3 Bay d'Espoir Terminal Station Circuit Breaker Failures

As introduced in prior reports,[22] since October 2018, Hydro has experienced four failures of 230 kV General Electric ("GE") dead tank circuit breakers at the Bay d'Espoir Terminal Station.

Hydro has developed plans to minimize outage duration in the event of another failure by ensuring the availability of spare breakers, and spare breaker phases. In the event of a failure, the associated outage duration to complete repairs is estimated to be two to three days. Hydro has also implemented new generator operating instructions supplemented with additional breaker protection to reduce the risk of failure. Hydro continues to review options for the long-term plan for replacement of these breakers,

[20] As communicated in its correspondence "2019 Failure of Bay d'Espoir Penstock 1 and Plan Regarding Penstock Life Extension," Newfoundland and Labrador Hydro, June 3, 2020, Hydro is developing a plan for life extension of the Bay d'Espoir penstocks. This work is informed by prior condition assessments and reviews completed by Hydro's external consultants.
[21] "2020–2021 Winter Readiness – Preliminary Overview," Newfoundland and Labrador Hydro, September 21, 2020.
[22] "2019–2020 Winter Readiness Planning Report," Newfoundland and Labrador Hydro, December 10, 2019 and "Bay d'Espoir Terminal Station General Electric Dead Tank Circuit breaker Failure Report," Newfoundland and Labrador Hydro, February 14, 2020.

with a view to balancing reliability and cost impacts to customers and will update the Board once a decision has been made on next steps.

8.2 Muskrat Falls to Happy Valley Interconnection Project

As previously identified in its 2019–2020 Winter Readiness Planning reports, the Muskrat Falls to Happy Valley Interconnection is dependent on the reliable in-service of the generating units at Muskrat Falls. As previously communicated to the Board, due to the impacts of the COVID-19 pandemic, the schedule for Muskrat Falls Unit 1 release for service[23] has been impacted and has therefore delayed the completion of the interconnection project.

On September 28, 2020, Hydro filed an update with the Board regarding the scheduled in-service timing of the Muskrat Falls generating units. In order to place the Muskrat Falls to Happy Valley Interconnection in service, a lengthy cutover outage is required. The Muskrat Falls schedule released in September would result in a cutover timing in Labrador's early winter season which is not conducive to a planned outage for customers. Additionally, as the commissioning of the units is still ongoing, in order to firmly plan on use of the interconnection this winter, Hydro would prefer to witness the units in reliable service. As the current schedule does not allow for this to occur in advance of winter, Hydro will continue to supply Labrador East using the 138 kV interconnection to Churchill Falls via transmission line L1301/1302.

In light of the decision to continue to supply Labrador East using the 138 kV interconnection to Churchill Falls, Hydro has reviewed its WR requirements to ensure the provision of reliable service to Labrador East for the 2020–2021 winter. Hydro has implemented a reliability plan, similar to that which was in place during the 2019–2020 winter season, for Labrador East for the upcoming winter season.

As committed in the September 30, 2020 filing,[24] Hydro filed a Labrador East Reliability Plan Update on November 18, 2020. Hydro will file monthly updates through to March 2021.

[23] Unit 1 first power was achieved on September 22, 2020 and a schedule for in-service released on September 28, 2020. An update on progress with respect to the in-service of the Muskrat Falls units was included in Hydro's December 3, 2020 Muskrat Falls monthly update.

[24] "Muskrat Falls to Happy Valley Interconnection Update and Labrador East Reliability Plan Winter 2020–2021," Newfoundland and Labrador Hydro, September 30, 2020.

8.3 Holyrood Thermal Generating Station Operations

Hydro previously reported that it did not anticipate that Holyrood TGS generation will be fully available by December 1, 2020 due to the October 25, 2020 failure of the Unit 1 Boiler Feed Pump West. However, repairs were completed sooner than expected and Unit 1 is fully available.

Three risks to reliable operations were previously identified for the upcoming winter season. One risk has been resolved and two remain. Updates are provided below.

8.3.1 Unit 1 Boiler Feed Pump West

Hydro experienced a failure of the Unit 1 Boiler Feed Pump West on October 25, 2020. The failed Boiler Feed Pump was last overhauled in 2016 and scheduled for overhaul again in 2022. Hydro had spare parts available to substantially complete the unplanned pump overhaul and also reconfigured a spare motor to enable the pump to be returned to service on November 16, 2020.

The pump motor rotor that was damaged during the failure was sent to a facility in New Brunswick for expedited repair. The repaired motor rotor is now expected to be returned from New Brunswick prior to December 31, 2020. Once received, a local shop will then reassemble and test the motor, after which time it will be available as a spare.

Hydro is completing a root cause failure analysis for the pump and motor. Failure of the pump was determined to be related to the inadvertent closure of the suction valve while the pump was in operation, leading to seizure of the pump. The suction valve closure was due to human error. Protection settings for the motor were reviewed and deficiencies were noted. The maximum number of starts and the minimum time between starts functions had not been enabled. The protection settings have been updated to include these parameters and Hydro believes that repeat of this failure has been mitigated.

8.3.2 Spare Volute Impeller Cartridge

As part of the Unit 1 Boiler Feed Pump West failure, the volute impeller cartridge was damaged and required replacement. The existing spare volume impeller cartridge was used during Hydro's repair effort. The damaged volute impeller cartridge from Unit 1 is being refurbished at Hydro's major pump supplier's shop in Ontario. Hydro is awaiting a return date for the refurbished volute impeller cartridge

and will provide an update in January 2021. Upon its return, the refurbished volute impeller cartridge[25] will replace the critical spare that was used to address the recent failure.

Should a boiler feed pump failure occur on Unit 1 or Unit 2, and if the spare volute impeller cartridge is required for refurbishment, then that unit would be de-rated to 85 MW until the spare volute impeller cartridge arrives. Such a failure is considered unlikely.

8.3.3 Unit 3 Circulating Water Seal Pit Discharge Piping Repair Deferral

Work to replace a section of the Unit 3 circulating water seal pit discharge piping was planned for 2020. Due to the discovery of turbulent water in the area where an isolation device was required to be installed to complete the refurbishment, this work needs to be deferred to 2021.

In February 2020, sink holes appeared over the Stage 2 (Unit 3) circulating water discharge line leaving from the seal pit to the outfall into Holyrood Bay. A leak in the circulating water discharge line was subsequently confirmed and a thorough inspection and pipe survey identified the pipe being in poor condition. A refurbishment plan to install a new pipe inside the existing pipeline was prepared, materials were procured, and a contractor was hired to execute this plan during the transition of Unit 3 from synchronous condenser operation to generation operation, scheduled for early November.

Recent preparations to execute this work discovered a significant amount of water turbulence and back flow into the Unit 3 circulating water pipe. Through a visual inspection, it appears the channel slope has been altered from its original design, possibly due to a large storm surge as was experienced during January 2020. As a result of this turbulent flow, it was unsafe for divers to install an isolation device at the end of the pipe as planned. The engineering consultant has confirmed that the probability of pipe failure is low for the current operating season.

Hydro has mitigated the risk by placing jersey barriers around the area above the damaged pipe to prevent loading from vehicles or plowed snow. A camera has also been installed to monitor the area for signs of deterioration. A contingency plan has been prepared that will be followed in the unlikely event of pipe failure during the operating season. This plan involves excavating the damaged section of pipe, installing the downstream isolation plug and the new pipe sections, clamping and sealing the pipe sections from the inside, and removal of the plug. Should the pipe fail, Unit 3 generation would be

[25] The refurbished spare is for Unit 1 and Unit 2 Boiler Feed Pumps.

unavailable for the duration of the repair, which is anticipated to be less than two weeks including cool-down and work protection permits.

9.0 Conclusion

Despite the challenges faced this year with respect to the COVID-19 pandemic, Hydro is confident in its WR position and its risk mitigation plans for the 2020–2021 winter season.

All generation and transmission WR activities are complete, generation sources are fully available and all capital projects with WR scope have been completed. Hydro has plans to maintain reliable service to its Labrador East customers until the Muskrat Falls to Happy Valley Interconnection and will continue to file monthly updates on the status of the Labrador East Reliability Plan.

As noted in Section 6.2, there are five critical spare parts that will be received during the first quarter of 2021. Hydro will provide a further update in January 2021 regarding these items.

Appendix A

Status of Capital Projects Related to Winter Readiness

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Status of Winter Readiness Scope in 2020 Capital Projects on the Island and Labrador Interconnected Systems

Asset Category	Project Title	Expected Completion of Winter Readiness Scope (December 1, 2020 Update)
Hydraulic Generation	Overhaul Unit 2, Cat Arm	Complete
Hydraulic Generation	Overhaul Unit 1, Bay d'Espoir	Complete
Thermal Generation	Overhaul Unit 2 Turbine Valve, Holyrood	Complete
Thermal Generation	Overhaul Unit 2 Generator, Holyrood	Complete
Thermal Generation	Overhaul Unit 3 Boiler Feed Pump West, Holyrood	Complete
Thermal Generation	Condition Assessment and Miscellaneous Upgrades, Holyrood	Complete

Notes

1. See Appendix H for more details on the status of the Holyrood projects.

Appendix B

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

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Holyrood Thermal Generating Station
Winter Readiness Testing

	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 Energy Control Centre ("ECC"), prior to coming Winter Operating Season to Ensure Preparedness. A Unit Load Test is Performed at This Time.	✓	✓	✓	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 Ops. Dept. and Whitbourne Crew	✓	✓	✓	N/A
Service Air and Instrument Air Systems:				
All Stationary Air Compressors Available	N/A	N/A	N/A	
All Portable Air Compressors Available	N/A	N/A	N/A	✓
Air Compressor Operational Checks Performed (e.g. Oil Levels, Cooling Water, etc.)	N/A	N/A	N/A	✓
Air Compressor STBY/Sequencing Capability	N/A	N/A	N/A	✓
Raw and Makeup Water System:				
Quarry Brook Dam Integrity	N/A	N/A	N/A	✓
Raw Water Sump Water Supply Control Valve Operational	N/A	N/A	N/A	✓
Raw Water Pumps Operational	N/A	N/A	N/A	✓
Adequate Supply of Chemicals (1172, 1179, Polymer, etc.)	N/A	N/A	N/A	✓
1172, 1179, Polymer Injection Pumping Sets, Pumps, Valves, Lines, Agitators, etc. Operational	N/A	N/A	N/A	✓
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	✓

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
Raw and Makeup Water System & 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 (2) 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	✓
Sand Filters:				
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 (2) 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

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
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
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

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
High Pressure ("HP") Feedwater System:				
Boiler Feed Pumps:				
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	✓	✓	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
Start-Up Desuperheater Steam and Water Valving Operation/Position Verified	✓	✓	✓	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
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

Ammonia & Cortrol System:

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 (2) 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

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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Holyrood Thermal Generating Station
Winter Readiness Testing

	Status of Test			
	Unit 1	Unit 2	Unit 3	BoP
Low Pressure Heaters:				
Low Load Recirculation Control Valve Operation	✓	✓	✓	N/A
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
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
Low Pressure ("LP") Heater Condensate Drains Pumps Operational	✓	✓		N/A
#4 High Pressure ("HP") Heater Condensate Drains Pump Operational	✓	✓	✓	N/A
Air and Flue Gas System:				
Instrumentation and Control Operational	✓	✓	✓	N/A
Forced Draft ("FD") Fans and Air Dampers:				
Two (2) FD Fans Available	✓	✓	✓	N/A
Bearing Oil Normal Operating Level	✓	✓	✓	N/A
Cooling Water on to Fans	✓	✓	✓	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
Stroke Variable Inlet Vanes, ("VIVs")	✓	✓	✓	N/A
Stroke Discharge Dampers	✓	✓	✓	N/A
FD Fan Motor Variable Speed Drives Operational	✓	✓	✓	N/A
All Burner Auxiliary Air Dampers/Positioners Operation (Units 1 and 2)	✓	✓	N/A	N/A
All Elevation Air Flow Dampers/Positioners Operation (Unit 3) Middle Center	N/A	N/A	✓	N/A

Rotary Air Heaters:

Rotary Air Heaters Operational	✓	✓	✓	N/A
Rotary Air Heaters Bearing Oil (Top and Bottom) Normal Operating Level	✓	✓	✓	N/A
Rotary Air Heaters Bearing Cooling Water On	✓	✓	✓	N/A
Rotary Air Heaters Electric Motor Drives Operational	✓	✓	✓	N/A
Rotary Air Heaters Air Supply to Air Heater Air Motor Drives Open	✓	✓	✓	N/A
Rotary Air Heaters Start-Up of Air Motor Drive Upon Loss of AC Power Supply to the Normal Operating Electric Drive Motor	✓	✓	✓	N/A
Rotary Air Heaters Steam Supply Control Valves Operational (*Note: Two Steam Supplies on (Units 1 and 2))	✓	✓	✓	N/A
Rotary Air Heaters Sootblowers Operational	✓	✓	✓	N/A

Boiler Sootblowing System:

Sootblower Control Panel Operational	✓	✓	✓	N/A
Sootblowers Steam Supply Control Valve Operational	✓	✓	✓	N/A
Sootblowers Overhauled During Annual Outage Verify Operation (e.g. Rotation, Travel	✓	✓	✓	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	✓

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
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 (e.g. Ignitor Control Box, Valve Operation, Lighting, etc.)	✓	✓	✓	N/A

Fuel Oil Delivery System, Auxiliary Steam and Fuel Oil Piping System:

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 Flatform Heaters Available when Required	N/A	N/A	N/A	N/A
Auxiliary Steam for Suction Heaters Available	N/A	N/A	N/A	✓
Auxiliary Steam for Flatform Heaters Available	N/A	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

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
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

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

Burners:

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

Fuel Additive System:

Adequate Supply Available	✓	✓	✓	N/A
Pumps Available	✓	✓	✓	N/A
Tanks, Agitators, etc. Available	✓	✓	✓	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
General Service ("GS") System:				
GS Heat Exchangers Backwashed, Cleaned, etc.	✓	✓	✓	N/A
Stage I GS Plate Cooler Strainers Cleaned	✓	✓	N/A	N/A
Stage I GS 'Auto-Clean' Strainer Operational	✓	✓	N/A	N/A
Stage I GS Duplex Strainers Cleaned	✓	✓	N/A	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
Turbine/Generator ("TG") Auxiliary Cooling System:				
TG Head Tank Normal Operating Level	✓	✓	✓	N/A
Turbine Lube Oil Coolers Operational	✓	✓	✓	N/A
TG Heat Exchangers Backwashed, Cleaned, etc.	✓	✓	✓	N/A
TG Pump Oil Normal Operating Level	✓	✓	✓	N/A
TG Pumps Available and Tested for STBY 'Auto-Start'	✓	✓	✓	N/A
Turbine Generator ("TG") System:				
Hydraulic System Units 1 and 2:				
Hydraulic System Accumulators Operational	✓	✓	N/A	N/A
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 (2) Hydraulic Fluid Pumps Availability	✓	✓	N/A	N/A
Hydraulic Pump Auto Start Testing	✓	✓	N/A	N/A
Two (2) Hydraulic Fluid Pump Coolers Availability	✓	✓	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
Valves:				
Pre-Outage Valve Survey Conducted of Boiler Drains	✓	✓	✓	N/A
Turbine Main Stop Valve Testing (Units 1 and 2)	✓	✓	N/A	N/A
Turbine Two (2) 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 (6) Main Control Valve Operation (Units 1 and 2)	✓	✓	N/A	N/A
Turbine Four (4) Main Control Valve Operation (Unit 3)	N/A	N/A	✓	N/A
Turbine Blowdown Valve Operation	✓	✓	✓	N/A
Lubricating System:				
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

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
Winter Readiness Testing

	Status of Test			
	Unit 1	Unit 2	Unit 3	BoP
Barring/Turning Gear:				
Turning Gear Operation Verified	✓	✓	✓	N/A
Perform Trip Test of Turning Gear	✓	✓	✓	N/A
Miscellaneous:				
Steam Seal Regulator Operational	✓	✓	✓	N/A
Operational On-Line/Off-Line Overspeed Trip Tests	✓	✓	✓	N/A
Hydrogen ("H2") and Carbon Dioxide ("CO2") System:				
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
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	✓
Generator:				
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	✓

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
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:

129V 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	✓

Emergency Diesel Generators:

Stage I and II Emergency Diesel Generators Tested for Emergency Stop	N/A	N/A	N/A	✓
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	✓

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
Electric Fire Pump Controller Check	N/A	N/A	N/A	✓
Public Address System Status	N/A	N/A	N/A	✓

Holyrood Main Powerhouse:

Back-Up ECC and Guardhouse Propane Generator	N/A	N/A	N/A	✓

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	✓

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

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Bay d'Espoir Hydraulic Generating Station

	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 Energy Control Centre ("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	✓	✓
Spherical Valves									
Turbine Main Stop Valve Testing	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Turbine Main Stop Valve Operational	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A
Service Air, Instrument Air Systems Compressors									
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	✓	✓
TG Cooling Water Systems									
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
Turbine Generator Governor System									
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
Generator									
Generator Exciter Operation Checked Off- and On- Line	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Generator Exciter Available	✓	✓	✓	✓	✓	✓	✓	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

Bay d'Espoir Hydraulic Generating Station

	Status of Test								
	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Bop PH 1	BoP PH 2
Lubricating System									
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
Switchyard/Terminal Station									
Breakers and Disconnects Operational	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Breaker and Disconnect Operation Verified by Ops. Dept. and TRO Bishops Falls	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Intake									
Water Elevation	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Trashrack System	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Gate Operation	✓	✓	✓	✓	✓	✓	✓	N/A	N/A
Surge Tank									
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
Spillway									
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
Battery Banks And Battery Chargers									
Plant 129V System									
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	✓	✓
129V Battery Banks Available	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓
Plant 48V System									
48V Battery Banks Checked	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A
Plant Uninterrupted Power Supplies ("UPS")									
UPS Power Supplies (Inverter NWS)	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
Emergency Diesel Generators									
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	✓	✓
Plant Air Conditioning System									
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
Plant Heating Steam									
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

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Hydraulic Generating Stations (Remote Units)

	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 Energy Control Centre ("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.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Spherical Valves											
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
Service Air, Instrument Air Systems Compressors											
All Stationary Air Compressors Available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Air Compressor Operational Checks Performed (e.g. Oil Levels, Cooling Water, etc.)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Air Compressor STBY/ Sequencing Capability/Lead Lag/Standby	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
HP Compressors Available	✓	✓	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A
LP Compressor Available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Instrumentation Control and Alarms Operational	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
TG Cooling Water Systems											
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	✓	N/A	✓	✓	✓	✓
CW Pump Motorized Discharge Valves 'Manual' & 'Auto', 'Cracked' Position Operation Verified	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotary (Water) Strainer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Turbine Generator Governor System											
Hydraulic System Accumulators Operational	✓	✓	✓	✓	N/A	✓	✓	✓	N/A	✓	N/A
Governor System Testing	✓	✓	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Governor System Available	✓	✓	✓	✓	N/A	✓	N/A		N/A	✓	N/A
Hydraulic Pump(s) Available	✓	✓	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Hydraulic Pump Gov Auto Start Testing	✓	✓	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Generator											
Generator Exciter Operation Checked Off- and On-Line	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Lubricating System											
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
Miscellaneous											
Breaker and Disconnect Operation Verified by Ops. Dept. and TRO Crew	✓	✓	✓	✓	N/A	✓	N/A	✓	N/A	✓	N/A
Control Structure											
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
Intake											
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
Spillway/Bypass											
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
Battery Banks And Battery Chargers											
Plant 129V System											
129V Battery Banks Checked	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
129V Battery Chargers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
129V Battery Banks Available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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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Hydraulic Generating Stations (Remote Units)

	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
Plant 48V System											
48V Battery Banks Checked	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Emergency Diesel Generators											
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Plant Air Conditioning System											
Control Rooms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Communications Rooms	N/A	N/A	✓	N/A	✓	N/A	✓	✓	✓	✓	✓
Plant Heating Steam											
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

Appendix D

Master Generation Outage Schedule

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2020 Generation Outage Schedule[1,2]

	Month	September				October				November					December				Scheduled Annual
	Week Starting	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13	20	27	Maintenance Outages
Unit	**MW**																		
Holyrood - G1	170																		
Holyrood - G2	170																		July 6 - October 16
Holyrood - G3	150																		November 8 - November 15
Bay d'Espoir - G1	76.5																		September 7 - September 12
Bay d'Espoir - G2	76.5																		September 7 - September 12
Bay d'Espoir - G3	76.5																		October 5 - October 25
Bay d'Espoir - G4	76.5																		October 16 - November 3
Bay d'Espoir - G5	76.5																		September 14 - September 18
Bay d'Espoir - G6	76.5																		
Bay d'Espoir - G7	154.4																		September 13 - October 4
Upper Salmon	84																		August 23 - September 13
Granite Canal	40																		
Hinds Lake	75																		September 27 - October 29, November 2 - November 17
Cat Arm 1	67																		
Cat Arm 2	67																		
Paradise River	8																		November 8 - November 19
Hardwoods GT	50																		September 22 - October 9
Stephenville GT	50																		October 25 - October 31
Holyrood GT	123.5																		
Star Lake	18																		September 20 - September 24
Exploits	63																		
CBPP CoGen	8																		
NLH Diesels[3]	24.7																		
Newfoundland Power	119.3																		
CBPP 60 Hz	99.1																		
Available Island Capacity	2,000	1,593.0	1,475.6	1,675.6	1,550.6	1,628.5	1,678.5	1,772.0	1,848.5	1,916.0	1,784.5	1,992.0	2,000.0	2,007.6	2,007.6	2,007.6	2,007.6	2,007.6	
Forecasted Gross Island Peak Load		957.0	983.0	1,008.0	1,007.0	1,047.0	1,086.0	1,133.0	1,210.0	1,273.0	1,336.0	1,399.0	1,462.0	1,720.0	1,720.0	1,720.0	1,720.0	1,720.0	
Total Island Reserves[4]		636.0	492.6	667.6	543.6	581.8	592.6	638.8	638.9	760.3	573.7	710.1	654.8	404.6	404.6	404.6	404.6	404.6	
Largest Operating Unit		154.4	154.4	154.4	154.4	154.4	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	170.0	
Island N-1 Reserves		481.6	338.2	513.2	389.2	427.1	422.5	319.0	336.0	590.0	395.5	540.0	485.0	227.0	234.8	234.8	234.8	234.8	
Happy Valley Gas Turbine	25																		

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

Notes:

[1] This outage schedule provides a comprehensive outage summary for the period September 1, 2020 to December 31, 2020.

[2] Preventative/Maintenance items that require short duration outages are not reflected in this chart. They are planned in conjuction with system operation for an appropriate time.

[3] 24.7 MW includes Hawkes Bay (5 MW), HRD Diesels (10 MW), and St. Anthony (9.7 MW).

[4] November Total Island Reserves include CBPP Capacity Assistance (97 MW - net) and System Voltage Reduction (20 MW). December also includes Vale (7.6 MW).

Appendix E

Critical Spares Status Listing – Thermal Generation

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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			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
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 TripValve	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,ITT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2206C		VALVE,ITT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Anion Valve - KV3205C		VALVE,ITT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Anion Valve - KV3206C		VALVE,ITT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2203C		VALVE,ITT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2207C		VALVE,ITT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2202C		VALVE,ITT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Cation Valve - KV2208C		VALVE,ITT	In Stock
Raw and Makeup Water System & Water Treatment Plant	Demineralization System	Instrumentation/Controls	Anion Valve - KV3203C		VALVE,ITT	In Stock
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

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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,STERLING 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
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
Condenser Air Extraction System	Vacuum Breakers		6' Flanged		VALVE,AIR & VACUUM 6 FLG	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

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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	Non-Stock
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
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

Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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,50OHM,5%,40 WATT		RESISTOR,500HM	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	DIODE		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,METALIZED 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 supsereded 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, reman 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		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

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	In Stock
Turbine Generator System Stage 1	Governor	Turbine Control System	MKV, Common Analog Card	New no longer available, reman 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, reman 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
Turbine Generator System Stage 1	Governor	Turbine Control System	PDM, Switch & Fuse Card		BOARD,GE DS200TCPDG1B	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	Oil Pressure Regulator	Diaphragm		DIAPHRAGM,GE 920B10612	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
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 Transmittter		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,STEELFLEX 1-1/8 S-4	In Stock

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	In Stock
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	Repair Kit		ACTUATOR KIT,FISH R667X000402	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
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 Recirculatoin Valve	Long Recirculatoin Valve	Gasket		GASKET,FISH 10A4154X012	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculatoin Valve	Long Recirculatoin Valve	Ring		RING,FISH 1U222835072	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculatoin Valve	Long Recirculatoin Valve	Diaphragm		DIAPHRAGM,FISH 2N126902202	In Stock
Units 1 & 2 Fuel Oil System	Long Recirculatoin Valve	Long Recirculatoin Valve	Cage	Repair Parts Stocked Ref CN116597	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
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

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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/ROTATING	On Order
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 I, one each stocked off-site)	Motor stored off site via service contract	SCIM, sin# 1026366788, frame MGP500B, 3000HP, 4160Vac, 60Hz	Non-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" H20	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" H20	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" H20	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
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,CONDICTIVITY	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

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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,METASTREAM	In Stock
L.P. Feedwater System	Condensate Extraction Pumps	Pump	Bearing	Mechanical Engineer to contact	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
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		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"	In Stock
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	Non-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 81-107-2A	In Stock
Powerhouse and Switchyard Single Line	258V DC System	Charger	Electronic Control Cards		CARD,CIGENTEC 81-112-2	In Stock
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 Cigentic	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
Condenser Air Extraction System	Vacuum Breakers		6" Flange Vacuum Breaker		VALVE,AIR & VACUUM 6 FLG	In Stock
Generator	Stator	Stator and Brush Rigging Assembly	Brush		BRUSH,GENERATOR U3	In Stock
Generator	Syncronous Condensor	Thrust Bearing	Bearing Pad		PAD,BEARING U3 SYNC COND	In Stock
Generator	Syncronous Condensor	Thrust Bearing	Seal Ring		RING,SEAL U3 SYNC COND	In Stock
Generator	Syncronous Condensor	Thrust Bearing	Thrust bearing		BEARING,THRUST U3 SYNC COND	In Stock
Generator	Syncronous Condensor	Thrust Bearing	Thrust bearing		BEARING,THRUST U3 SYNCH COND	In Stock
Generator	Syncronous Condensor	Thrust Bearing	Seal Ring		RING,SEAL U3 SYNCH COND	In Stock

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	In Stock
Generator	Syncronous Condensor	Thrust Bearing	Thermocouple		THERMOCOUPLE,U3 SYNCH 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
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)		VOLTAGE TRANSFORMER, ABB VIZZ-	In Stock
Generator	Stator	PT Cubicle	Fuse		FUSE,GE EJ0-1-C588L405G1	On Order
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		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	In Stock
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,CONDICTIVITY	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" H20	In Stock
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

Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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
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	Electrical Trip Test Device	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

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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	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	Parts common to AC Pump	BEARING,PLANE HIT ITEM 35	In Stock
Turbine Generator System Stage 2	Turbine Lube Oil System	DC Lube (Flushing) Oil Pump	Bearing	Parts common to AC Pump	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
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	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Lockring		LOCKRING,10P-061-226-208	In Stock
Turbine Generator System Stage 2	Main Steam Chest Assembly	Control Valve - Upper	Lockring		LOCKRING,10P-061-226-209	In Stock
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	In Stock
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	In Stock
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		TRANSMITTER,PRESS 0-200	In Stock
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

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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
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		PROBE,OXYGEN ANALYZER	On Order
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
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)	Repair Kit		ACTUATOR KIT,FISH R667X000402	In Stock

Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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	Repair Kit		ACTUATOR KIT,FISH R667X000402	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/		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
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	Non-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		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,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
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,CONDICTIVITY	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" H20	In Stock

Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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
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

Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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
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

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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
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
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

Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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 (Tie Breaker Between Station Board SB34 & Unit Board UB3)		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 (Tie Breaker Between Station Board SB34 & Unit Board UB3)		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)	TB3 (Tie Breaker Between Station Board SB34 & Unit Board UB3)		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	SYNCHROTACT,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 (Tie Breaker Between Station Board SB34 & Unit Board UB3)		TB3 relays	Shares spare with other Westinghouse relays - replaced by ABB SPAU121C	RELAY,VOLTAGE ABB SPAU121C	In Stock
Station Board SB34 (ST34)	TB3 (Tie Breaker Between Station Board SB34 & Unit Board UB3)		TB3 relays	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)			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	SYNCHROTACT,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

Asset			Critical Spare			
System	**Sub-System**	**Asset**	**Defined Spare**	**Notes**	**Inventory Description**	**Inventory Status**
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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	SYNCHROTACT,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
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

Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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
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

Asset			Critical Spare			
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	Inventory Status
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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
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

Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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
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

Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	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
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	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	SYNCHROTACT,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 RXMH-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

Asset			Critical Spare			Inventory Status
System	Sub-System	Asset	Defined Spare	Notes	Inventory Description	
Fire Protection System	Electrical Driven Pump	Pump	Inboard Bearing		BEARING,PEERLESS INBOARD	In Stock
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)	Unit Aux Transformer (UAT3)	Aux Board UAB3 (UAB3)	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
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

newfoundland labrador hydro
a nalcor energy company

Critical Spares Status
Hardwoods and Stephenville - Gas Turbines

Reccomended Component	Stock	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	
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	

Critical Spares Status
Hardwoods and Stephenville - Gas Turbines

Reccomended Component	Stock	Risk Score	Expected Delivery	Comments
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	
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	
Vibration Pickup (181571), Power Turbine Model CT2, Prime Mover Systems	In Stock	Medium	N/A	
Liquid Fuel Burner - Complete (BDC.3026), Gas Generator, Prime Mover Systems	In Stock	Medium	N/A	
NC Solenoid Valve (SV-CA-2), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A	
NO Solenoid Valve (SV-CA-1), Gas Generator Air Starter System, Auxiliary Systems	In Stock	High	N/A	
Pressure Switch, Main Lube Oil System, Auxiliary Systems	In Stock	High	N/A	
Pressure Switch, Liquid Fuel System, Auxiliary Systems, HWDGT	In Stock	Medium	N/A	
Pressure Switch, Gas Generator Lube Oil System, Auxiliary System, HWDGT	In Stock	Medium	N/A	
3-Way Thermostatic Valve (GL-2), MLO/Glycol Cooling System, Auxiliary Systems	In Stock	Low	N/A	
Alternator Bearing Drain Oil Thermocouple (TC-LO-3), Main Lube Oil System, Auxiliary Systems, HWD GT	In Stock	Low	N/A	

Reccomended Component	Stock	Risk Score	Expected Delivery	Comments
Oil Drain AlternatorBearing Thermocouple, Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	Low	N/A	
Oil Drain Clutch Bearing Thermocouple, Main Lube Oil System, Auxiliary Systems, SVL GT	In Stock	Low	N/A	
Oil Drain Thermocouple (TC-LO-2), Main Lube Oil System, Auxiliary Systems, HWD GT	In Stock	Low	N/A	
Oil Supply Thermocouple (TC-LO-1), Main Lube Oil System, Auxiliary Systems	In Stock	Low	N/A	
Fuel Temperature Sensor (TS-LF-1), Liquid Fuel System, Auxiliary Systems	In Stock	Low	N/A	

Critical Spares Status
Holyrood - Gas Turbine

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
TURBINE EXHAUST TUNNEL - THERMAL DETECTOR, KIDDE-FENWAL:12-H27121-020-08	Provided Under Service Contract	Medium	N/A	
FIRE CONTROL PANEL TROUBLE ALARM TO DCS, DET-TRONICS:U9500A	Provided Under Service Contract	Low	N/A	
FIRE CONTROL PANEL DISCHARGE -ALARM TO DCS, NOTIFIER:AFP-300	Provided Under Service Contract	Low	N/A	
LP COMPRESSOR BLEED VALVE, 18", METSO AUTOMATION:815W 11 22HB XZC VA	In Stock	High	N/A	
HP COMPRESSOR BLEED VALVE, 14", FISHER:A31A-1031/33082 SR80	In Stock	High	N/A	
Module, ControlNet - Combination Generator Control Module with ControlNet communication	On Hand - Under Parts Management Agreement	High	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	Medium	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	Medium	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	Medium	N/A	
Module, relay expander - Relay Expander Module, 24V DC, 16 Relays with Fusing	On Hand - Under Parts Management Agreement	Medium	N/A	
10 Slot ControlLogix Chassis	On Hand - Under Parts Management Agreement	Medium	N/A	
4 Slot ControlLogix Chassis	On Hand - Under Parts Management Agreement	Medium	N/A	
ControlNet Interface Module (100 connections)	On Hand - Under Parts Management Agreement	Medium	N/A	
ControlNet Redundant Interface Module (100 connections)	On Hand - Under Parts Management Agreement	Medium	N/A	
ControlNet Redundant Bridge Module (40-48 connections)	On Hand - Under Parts Management Agreement	Medium	N/A	
EtherNet 10-100M Interface Module (supports 128 TCP/IP connections)	On Hand - Under Parts Management Agreement	Medium	N/A	
EtherNet 10-100M Interface Module (supports 64 TCP/IP connections)	On Hand - Under Parts Management Agreement	Medium	N/A	
10-30 VDC Isolated Input 16 Pts (36 Pin)	On Hand - Under Parts Management Agreement	Medium	N/A	
10-30 VDC Individually Isolated Input 16 Pts (36 Pin)	On Hand - Under Parts Management Agreement	Medium	N/A	
Analog Input - Current/Voltage 16 Pts (36 Pin)	On Hand - Under Parts Management Agreement	Medium	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	High	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	High	N/A	
10-31 VDC Output 32 Pts (36 Pin)	On Hand - Under Parts Management Agreement	Medium	N/A	
10-31 VDC Output 32 Pts (36 Pin)	On Hand - Under Parts Management Agreement	Medium	N/A	

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
Analog Output - Current/Voltage 8 Pts (20 Pin)	On Hand - Under Parts Management Agreement	Medium	N/A	
ControlLogix, 85-265 VAC Power Supply (10 Amp @ 5V)	On Hand - Under Parts Management Agreement	Medium	N/A	
ControlLogix, 85-265 VAC Power Supply (13 Amp @ 5V)	On Hand - Under Parts Management Agreement	Medium	N/A	
Redundancy Module	On Hand - Under Parts Management Agreement	Medium	N/A	
ControlLogix Position and Time Sevices	On Hand - Under Parts Management Agreement	Medium	N/A	
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	Low	N/A	
Networks and Communication Products, ControlNet Repeater Adapter Module	On Hand - Under Parts Management Agreement	Low	N/A	
Networks and Communication Products, Long-distance Fiber Ring Repeater Module	On Hand - Under Parts Management Agreement	Low	N/A	
Networks and Communication Products, Long-distance Fiber Ring Repeater Module	On Hand - Under Parts Management Agreement	Low	N/A	
Networks and Communication Products, Right-angle T-tap	On Hand - Under Parts Management Agreement	Low	N/A	
Networks and Communication Products, Right-angle Y-tap	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, ControlNet FLEX I/O Adapter Module	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 24VDC, 16 Sink Inputs	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 24VDC, 32 Sink Inputs	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Analog Input Modules, 8 Single-Ended Inputs	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Analog Input Modules, 8 Single-Ended Inputs	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Analog Input Module, 16 Bit, 4 Point Isolated	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 2-Channel High Resolution Frequency	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, 8 Point RTD	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, Non-Isolated, Thermocouple / RTD / Mv	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Input Module, Thermocouple, 8 Point	On Hand - Under Parts Management Agreement	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Output Module, 24V DC, 16 Source Outputs	On Hand - Under Parts Management Agreement	Low	N/A	
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	Low	N/A	
1794 Flex, Flex Ex, Flex XT I/O System, Analog Output Module, 16 Bit, 4 Point Isolated	On Hand - Under Parts Management Agreement	Low	N/A	
PF750-24V I/O Module-2AI,2AO,6DI,2RO	On Hand - Under Parts Management Agreement	Low	N/A	

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
PowerFlex Architecture Class DeviceNet Communication Adapter	On Hand - Under Parts Management Agreement	Medium	N/A	
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	Medium	N/A	
PowerFlex Architecture Class Remote Enhanced HIM, IP66 (NEMA 4X/12) Indoor Use Only. Includes 1202-C30 cable.	On Hand - Under Parts Management Agreement	Medium	N/A	
PanelView Plus Display Keypad/Touch, 15-inch TFT Display, Color, No Options	On Hand - Under Parts Management Agreement	Medium	N/A	
PanelView Plus Display Touch Screen, 12.1-inch TFT Display, None, High Bright	On Hand - Under Parts Management Agreement	Medium	N/A	
ControlNet Scheduled and Unscheduled Communication Module for Marine Certified PanelView Plus 700-1500 and PanelView Plus CE	On Hand - Under Parts Management Agreement	Low	N/A	
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	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 1.0-5.0A, NEMA 2	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 3-15A, NEMA 2	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 5-25A, NEMA 2	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 9-45A, NEMA 2	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 9-45A, NEMA 3	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 18-90A, NEMA 3	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 0.4-2.0A, NEMA 00	On Hand - Under Parts Management Agreement	Medium	N/A	
592 E3 and E3 Plus Solid-State Overload Relays, E3 Plus, 60-302A, NEMA 5	On Hand - Under Parts Management Agreement	Medium	N/A	
ProSoft Technology DNP 3.0 Ethernet Server Communication Module	On Hand - Under Parts Management Agreement	Low	N/A	
ProSoft Technology Modbus Master/Slave Enhanced Communication Module	On Hand - Under Parts Management Agreement	Low	N/A	
PURGE SOLENOID REPAIR KIT, SURESITE:3153515	In Stock	Low	N/A	
BARKESDALE HEATER CONTROL TEMPERATURE SWITCH, MODEL # T1X-S154-A, STAINLESS STEEL WAS MARKED AS IN STOCK JDE=0	In Stock	Low	N/A	
VALVE, SHUTDOWN PURGE 1", QS0065-4 DXP-L21GNEB JBHC8327G041-125VDC	In Stock	High	N/A	
VALVE, CONTINUOUS PURGE 3", QS0600-4 DXP-L21GNEB EFHC8321G1	In Stock	High	N/A	
FUSE, LOW VOLTAGE DC REPLACEMENT FUSE (LOW VOLTAGE DC PIM), BENTLY NEVADA: 1720045	In Stock	Low	N/A	
MODULE, DC POWER SUPPLY HIGH VOLTAGE DC POWER SUPPLY MODULE, BENTLY NEVADA:129486-01	In Stock	Medium	N/A	
MODULE, POWER SUPPLY LOW VOLTAGE DC POWER SUPPLY MODULE, BENTLY NEVADA:133292-01	In Stock	Medium	N/A	
MODULE, POWER INPUT LOW VOLTAGE DC POWER INPUT MODULE (PIM), BENTLY NEVADA:133300-01	In Stock	Medium	N/A	

Critical Spares Status
Holyrood - Gas Turbine

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
MANUAL, POWER SUPPLY MODULE POWER SUPPLY MODULE, MANUAL, BENTLY NEVADA:129767-01	In Stock	Medium	N/A	
E-CELL 55A CURRENT TRANSDUCER, PHOENIX CONTACT:3062518	In Stock	Low	N/A	
E-CELL 32A CONTACTOR, GENERAL ELECTRIC:3060877	In Stock	Low	N/A	
PANEL HEATER 120V 60HZ 400W, PH40011	In Stock	Low	N/A	
SOLAR SPARK PLUG IGNITER, CENTAUR:903316C1	In Stock	Low	N/A	
SHAFT, FISHER SHAFT, FISHER:7000400800	In Stock	Low	N/A	
PUMP, CONVERTER CHARGING TORQUE CONVERTER CHARGING PUMP, KOENIG:X216228-J	In Stock	Low	N/A	
REPAIR KIT, SSS CLUTCH MINOR KOENIG:SL17998MNKT	In Stock	Medium	N/A	
VALVE, CHECK 3" 3MB60-6047-WR	In Stock	Medium	N/A	
VALVE, SS POPPET CHECK SS POPPET CHECK VALVE, SWAGELOCK:SS-6C-1	In Stock	Low	N/A	
VALVE, FUEL CHECK FUEL LINE CHECK VALVE, PARKER:10A-CBG8L-10-PF-SS, VOGT:SW9871T,	In Stock	High	N/A	
VALVE, CHECK CHECK VALVE, SUN HYDRAULICS:CXDA-XAN	In Stock	Low	N/A	
VALVE, SOLENOID SOLENOID VALVE, SUN HYDRAULICS:DLDA-MCN	In Stock	Low	N/A	
VALVE, FUEL BYPASS MANUFACTURER:FISHER, MODEL:1008 HANDWHEEL ACTUATOR W/LOCKING MECHANISM, SIZE 40, TRAVEL LENGHT:3/4", CAPABLE OF GIVING PRECISE MANUAL - THROTTLING CONTROL, TRAVEL INDICTATOR MOUNTED ON ACTUATOR - YOKE FOR VISUAL VALVE PLUG POSITION	In Stock	High	N/A	
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	High	N/A	
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	Low	N/A	
VALVE, PRESSURE RELIEF HYDRAULIC FLUID PRESS RELIEF VALVE, REXROTH:R900341066	In Stock	Low	N/A	
PUMP DISCHARGE - PRESSURE RELIEF VALVE, REXROTH:R900420276	In Stock	Low	N/A	
VALVE MANIFOLD PRESSURE RELIEF VALVE, REXROTH:R900423723	In Stock	Low	N/A	
MAIN PUMP DISCHARGE - PRESSURE RELIEF VALVE, REXROTH:R900424147	In Stock	Low	N/A	
PRESSURE CONTROL VALVE, SUN HYDRAULICS:RDBA-LAN	In Stock	Low	N/A	
SOLENOID VALVE, TYCO: 52-287-10-024	In Stock	Low	N/A	
AIR CONTROL SOLENOID VALVE, 24VDC MINI, INGERSOLL RAND 633658	In Stock	Low	N/A	
VALVE, STOP FISHER 3", 560iit-TH66 QS1600-4 DXP-L21GNEB	In Stock	Low	N/A	
FILTER, WATER - CLARK RELIANCE 2500PW	In Stock	Medium	N/A	
INST AIR DEW POINT ANALYZER, MICHELL INSTRUMENTS:EA-XP-TX-EX1-C1-D1-E2-F1-G1-H1	In Stock	Low	N/A	
ACTUATOR, TYPE PNEUMATIC RACK & PINION, FLOWSERVE:20E39SWZ24D	In Stock	Low	N/A	
ATOMIZING AIR RECEIVER INLET VALVE, WORCESTER:5166TT150	In Stock	Low	N/A	
MODEL AD-1 AUTOMATIC DRAIN VALVE, TYCO:52-793-2-004	In Stock	Low	N/A	
MODEL ASV-1 AUTOMATIC - SHUT-OFF VALVE, TYCO:92-343-1-021	In Stock	Low	N/A	
COMBUSTOR SHELL DISCHARGE - TEMPERATURE THERMOCOUPLE DUPLEX TYPE K	In Stock	Medium	N/A	

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
COOLING AIR FILTER BLEED DRAIN VALVE, 1", WORCHESTER:B4446 XG SW	In Stock	Low	N/A	
COIL, OVERSPEED TRIP ELECTRONIC OVERSPEED TRIP, 9501W38	In Stock	High	N/A	
TORQUE CONVERTER MAGNETIC SPEED PICK-UP COIL, KOENIG:9501W14	In Stock	High	N/A	
1 SERIES NEEDLE VALVE, SWAGELOCK:B-1VM4-S4/SS-1VM4-S4	In Stock	Low	N/A	
FEMALE NEEDLE VALVE, MCMASTER CARR:4644K33, 3/8"NPT	In Stock	Low	N/A	
PARKER VALVE, MODEL# 6Z-PR4-BNT-SS	In Stock	Low	N/A	
GLOBE VALVE, STEEL, VOGT:SW9871T, LUBE OIL FILTER TOWER #1 VENT VALVE	In Stock	Low	N/A	
INDICTATOR, SIGHT 1-1/2", JACOBY:100-S(NF)	In Stock	Low	N/A	
PILOT VALVE ASSEMBLY, CLIPPARD FV-SP W/MPA-3P, CLIPPARD:LWT3732	In Stock	High	N/A	
FLOAT, SURESITE:88111	In Stock	Low	N/A	
HYD FLUID SUPPLY FILTER SELECTION VALVE, PALL:1319232	In Stock	Low	N/A	
THROTTLE VALVE, NFBC-LCN	In Stock	Low	N/A	
GASKET, FILTER HOUSING GASKET,CLARK RELIANCE:A10137455, NFS# 10117455	In Stock	Low	N/A	
O-RING, BUNA HEAD TO BOWL O-RING BUNA, PALL:UK19672	In Stock	Low	N/A	
O-RING, FISHER O-RING, FISHER:T1205106562	In Stock	Low	N/A	
BUSHING ASSY, FISHER POT POT/BUSHING ASSEMBLY, FISHER:27B6208X012	In Stock	Low	N/A	
FILL KIT, SF6 ABB BREAKER SF6 FILL KIT, (HECS 80S), S/N 1HC211015861	In Stock	Low	N/A	
BELT, ECODYNE:1320-BLT-S-EHX19-90	In Stock	Medium	N/A	
COUPLING, PUMP/MOTOR JOHN CRANE:A045-3S78-1270, 1-1/2" - 2-3/8", ROUGH BORE	In Stock	Low	N/A	
PUMP, GEAR DANFOSS:BERENDEN FLUID POWER SNP 2/11	In Stock	Medium	N/A	
COUPLING, PUMP-MOTOR COUPLING, REXNORD-OMEGA: REX ELASTOMER-ES-4(STANDARD ORANGE),PUMP-MOTOR	In Stock	Low	N/A	
COUPLING, PUMP-MOTOR COUPLING, REXNORD-OMEGA: ELASTOMER-ES-5 (STANDARD ORANGE) PUMP-MOTOR	In Stock	Low	N/A	
REPAIR KIT, INJ. PUMP CHEMICAL INJECTION PUMP REPAIR KIT, GRAINGER:K4PTC1	In Stock	Medium	N/A	
FILTER, FUEL CAT 1R0749 FOR USE ON STAGE I AND II, EMERGENCY DIESEL MANUAL PRIMING PUMPS, CATERPILLAR #1R-0749	In Stock	Medium	N/A	
ELEMENT 0180MA0003BN (3µm), P/N 2059438, SPIN ON ELEMENT, MANUFACTURER:HYDAC	In Stock	Low	N/A	
FILTER, LIQUID FUEL CLARK RELIANCE 2200A3	In Stock	High	N/A	
FILTER, AIR (ELEMENT) INGERSOLL RAND 32012957	In Stock	Low	N/A	
ELEMENT, PRE-FILTER PRE-FILTER ELEMENT 105 SCFM, INGERSOLL RAND 85565679	In Stock	Low	N/A	
FILTER, AIR GEN AIR FILTERS, COMPACT FILTER G4/F7 287 X 292 X 300, SIEMENS	In Stock	Medium	N/A	
FILTER, AIR GEN AIR FILTERS, COMPACT FILTER, G4/F7 592 X 292 X 300, SIEMENS	In Stock	Medium	N/A	
FILTER KIT, FUEL LOW PRESSURE FUEL FILTER REPLACEMENT KIT, CENTAUR:912555C3	In Stock	High	N/A	

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
KIT, OIL FILTER & O-RING LUBE OIL FILTER & O-RING KIT, CENTAUR:9161283C1	In Stock	Low	N/A	
FILTER, FUEL BOOST KIT - LOW PRESSURE, 912343C1	In Stock	Low	N/A	
FILTER, IGV ACTUATOR - MOOG:B64567-1V	In Stock	Medium	N/A	
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	Medium	N/A	
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	Medium	N/A	
PRE-FILTER, PARKER AIR DRYER PARKER AIR DRYER PRE-FILTER, PARKER FILTER CARTRIDGE# 6C10-050	In Stock	Low	N/A	
AFTER-FILTER, AIR DRYER AIR DRYER AFTER FILTER, PN 25-178-50C, PARKER FILTER CARTRIDGE # 10C10-050	In Stock	Low	N/A	
FILTER, PRESSURE PALL: ELEMENT HC9600FCP4H	In Stock	Medium	N/A	
ELEMENT, POST FILTER POST FILTER ELEMENT 105 SCFM, INGERSOLL RAND 85565661	In Stock	Medium	N/A	
TRANSMITTER, PRESSURE ROSEMOUNT:3051S2TG3A2A11A1AM5Q4	In Stock	Medium	N/A	
FILTER, LUBE OIL LUBE OIL FILTER, CLARKE RELIANCE:A2200A4, NFS:2200A4	In Stock	High	N/A	
SOFT PARTS KIT, CLARKE RELIANCE:A10400107, NFS:10400107	In Stock	Medium	N/A	
FILTER AUTOMATIC FLOW CONTROL, 4"FNPT, MODEL:ST-400-25, 240GPM, PENTAIR:LWT 3949	In Stock	Medium	TBD	
FILTER AUTOMATIC BACKWASH FLOW CONTROL, 4" FNPT, MODEL:ST-400-25, 245GPM, MODULAR PIPING SUPPLY INC: LWT5430	In Stock	Medium	N/A	
CARTRIDGE, DESICCANT PNEUMATIC PRODUCTS:3153517	In Stock	Low	N/A	
FILTER, OIL 275-2604 OIL FILTER, CAT:275-2604	In Stock	Low	N/A	
FILTER, AIR 4P0710S AIR FILTER, CAT: 4P0710	In Stock	Low	N/A	
PRE-FILTER, AIR COOLING	In Stock	Low	N/A	
PRE-FILTER, AIR COOLING	In Stock	Low	N/A	
METER, FLOW ROSEMOUNT:3051SFC1CS030N065-T33EA1A5Q4E6M5	In Stock	Medium	TBD	
LIQUID FUEL TEMPERATURE TRANSMITTER, ROSEMOUNT 644HAK6M5Q4J6	In Stock	Medium	N/A	
PUMP SUPPLY PRESSURE SWITCH, CCS 646GZEM1	In Stock	Medium	N/A	
PUMP DISCHARGE PRESSURE TRANSMITTER, ROSEMOUNT 3051CG5A22A1AS5B4C6M5Q4	In Stock	Medium	N/A	
PNEUMATICALLY ACTUATED THROTTLE VALVE, FISHER ET-677-DVC-6200	In Stock	Medium	N/A	
PUMP DISCHARGE PRESSURE SWITCH, CCS 646GZEM5	In Stock	Medium	N/A	
METER, FLOW ROSEMOUNT:3051SFC1CS030NXT33DA1A5DQ4E6M5	In Stock	Medium	TBD	
CONTROLLER, STEP LIFO 8 STAGES, SCL4000-8	In Stock	Low	N/A	
LIMIT CONTROLLER (0-2502-F), SA100LKA3-MN-4*NN-D1/Y	In Stock	Low	N/A	
STEP CONTROLLER LIFO (4 STAGES), SCL4000-4	In Stock	Low	N/A	
INSTRUMENT AIR DRYER DIFFERENTIAL PRESSURE, DIFFERENTIAL PRESSURE TRANSMITTER, ROSEMOUNT:3051S2CD3A2A11A1AL1L2L4M5Q4	In Stock	Low	N/A	
DIFFERENTIAL PRESSURE SWITCH,JOHNSON CONTROLS:JCI P 233 A-10-AAC	In Stock	Low	N/A	

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FUEL OIL INLINE HEATER SUPPLY FLOW SWITCH, MAGNETROL TD2-7D01-0G0 C/W TEA-A110-004, THERMAL DISPERSION FLOW SWITCH	In Stock	Low	N/A	
FUEL UNLOADING PUMPS OUTLET PRESURE/GAUGE PRESSURE TRANSMITTER, ROSEMOUNT:3051S2TG3A2E11A1AB4K6M5Q4	In Stock	Low	N/A	
FUEL OIL TANK 1 LEVEL RADAR LEVEL TRANSMITTER, ROSEMOUNT:5402AH1E64SPVDAM1C1S3	In Stock	Medium	N/A	
FUEL OIL TANK HIGH LEVEL SWITCH, ULTRASONIC GAP LEVEL SWITCH, MAGNETROL:961-2DA0-030 C/W 9A1-A43A-018	In Stock	Medium	N/A	
FUEL OIL INLINE HEATER DISCHARGE TEMPERATURE TRANSMITTER, ROSEMOUNT:644HAK6J6M4	In Stock	Medium	N/A	
FUEL OIL INLINE HEATER DISCHARGE TEMPERATURE RTD, ROSEMOUNT:68 SERIES/0068D21C30A020T26	In Stock	Medium	N/A	
FUEL OIL DAY TANK LEVEL RADAR LEVEL TRANSMITTER, ROSEMOUNT:5402AH1E64PNACAM1C1	In Stock	Medium	N/A	
FUEL OIL TANK HIGH LEVEL SWITCH, DISPLACER LEVEL SWITCH, MAGNETROL MODEL # A15-1E2B-HM3, SERIAL # 744243-01-001	In Stock	Medium	N/A	
SWITCH ASSEMBLY, LIMIT MICROSWITCH # LSA2B	In Stock	Low	N/A	
CABLE,SOLAR, IGNITER CENTAUR:919340C2	In Stock	Medium	N/A	
PICKUP, MAGNETIC CENTAUR:P/N 190430-1	In Stock	Medium	N/A	
SWITCH, OVERSPEED CENTAUR KIT P/N1071653-2600	In Stock	Medium	N/A	
INLET GUIDE VANE POSITION TRANSMITTER, FISHER:4200 SERIES (4200)	In Stock	Medium	N/A	
RAC FILTER DRAIN SOLENOID VALVE, PARKER:H2223N	In Stock	Low	N/A	
LUBE OIL FILTER DELTA HIGH PRESS SWITCH, MIDWEST:120-AA-09-0-CZ	In Stock	Medium	N/A	
LUBE OIL COOLER OUTLET TEMP GAUGE, ASHCROFT:600B-01-CEXSG	In Stock	Low	N/A	
BEARING LUBE OIL HEADER PRESS#1 LOW, PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: J402-146-1521	In Stock	Medium	N/A	
BEARING LUBE OIL PRESSURE CONTROL VALVE, FISHER:ED-655	In Stock	Medium	N/A	
EMERGENCY LUBE OIL PUMP DISCHARGE - PRESSURE SWITCH, UNITED ELECTRIC CONTROLS - J400-146-1521	In Stock	Medium	N/A	
LUBE OIL RESERVOIR VACUUM - PRESSURE INDICATOR, ASHCROFT:45-11877SS-04B	In Stock	Low	N/A	
LUBE OIL RESERVOIR TEMPERATURE SWITCH, HONEYWELL:T775A2009	In Stock	Low	N/A	
MAIN LUBE OIL PUMP #1 - DISCHARGE PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: J402-164-1521	In Stock	Medium	N/A	
OVERSPEED TRIP SENSOR #1, ELECTRO CORP:3090A35	In Stock	High	N/A	
INLET AIR MANIFOLD PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: J400K-455-1520	In Stock	Low	N/A	
DIFFERENTIAL PRESSURE SWITCH, PNEUMAFIL:552033-B1	In Stock	Medium	TBD	
INTAKE AIR STATIC FILTER DIFFERENTIAL- PRESSURE SWITCH, SOR:107AL-K12-P1-F1A	In Stock	Low	N/A	
INLET SCROLL TEMPERATURE TRANSMITTER #1, YOKAGAWA:YTA320-EA2NN/FU1/D2/Z	In Stock	Low	N/A	
RTD, #1 PRIMARY SIGNAL INLET SCROLL RTD #1 PRIMARY SIGNAL, ROSEMOUNT:0078-N-25-N-00-A-060-T26-XA	In Stock	Low	N/A	
INSTRUMENT AIR SYSTEM PRESSURE SWITCH, UNITED ELECTRIC CONTROLS: H122-184, MFG PN 0409-007	In stock	Low	N/A	
INSTR.AIR COMPRESSOR RECEIVER - LOW PRESSURE ALARM SWITCH, UNITED ELECTRIC CONTROLS: H122-274	In Stock	Low	N/A	
INST AIR SYSTEM ISOLATION SOLENOID VALVE, ASCO:HCL8316G66MB	In stock	Low	N/A	
INSTR.AIR COMPRESSOR START STOP, PRESSURE SWITCH, HUBBELL INDUSTRIAL CONTROL: 69HA109779U	In Stock	Low	N/A	
INSTRUMENT AIR COMPRESSOR LOW - OIL LEVEL INDICTATOR, INGERSOLL RAND:22102388	In Stock	Low	N/A	
GENERATOR MAIN JACKING OIL PUMP - PRESSURE SWITCH, BARKSDALE:B1T-H04	In Stock	High	N/A	
GENERATOR TURBINE END BEARING - JACKING OIL FLOW SWITCH, MEISTER:DKM/A-1/10	In stock	High	N/A	
HYD FLUID AIR BLEED VALVE, HYDAC:AEV6/5 00230023	In Stock	Low	N/A	
HYD FLUID PUMP #1 DISCHARGE - PRESSURE SWITCH, REXROTH:HED 3 OAEX/63/12	In Stock	Low	N/A	
HYD FLUID RESERVOIR - LEVEL TRANSMITTER, GEMS:XT-800	In Stock	Low	N/A	
HYD FLUID RESERVOIR LEVEL INDICATOR, REXROTH:CS3615-244910	In Stock	Low	N/A	
HYD FLUID HEADER SUPPLY - PRESSURE TRANSMITTER, ROSEMOUNT: 3051TG4A2A21AM5Q4	In Stock	Low	N/A	
HYD FLUID COOLER FAN MOTOR - TEMPERATURE SWITCH (OFF), UNITED ELECTRIC CONTROLS: C402-120-1070-M202 135/120F	In Stock	Low	N/A	
HYD FLUID COOLER FAN MOTOR - TEMPERATURE SWITCH (ON), UNITED ELECTRIC CONTROLS: C402-120-1070-M202 135/120F	In Stock	Low	N/A	
HYD FLUID RESERVOIR HEATER - TEMPERATURE SWITCH, UNITED ELECTRIC CONTROLS: C402-120-1070-M202 73/86F	In Stock	Low	N/A	

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
HYD FLUID SUPPLY FILTER - DIFFERENTIAL PRESSURE SWITCH, PALL:RC0113CZ097H	In Stock	Low	N/A	
HYD FLUID RESERVOIR THERMOCOUPLE, OMEGA:NB1-CASS-14U-12" DUAL	In Stock	Low	N/A	
CHLORINE INJECTION FLOW SWITCH, DWYER INSTRUMENTS:FS2	In Stock	Low	N/A	
DOUBLE ACTING PNEUMATIC ACTUATOR, KEYSTONE MORIN, TYCO:MRP 004	In Stock	Low	N/A	
0-500 PRESSURE TRANSMITTER - RO SKID, AUTOMATION DIRECT: PTD25-20-0500H	In Stock	Medium	N/A	
PRESSURE TRANSMITTER, AUTOMATION DIRECT:PTD25-20-0100H, 0-100 PSI - VARIOUS SKIDS	In Stock	Medium	N/A	
ANALOG INPUT CARD FOR PLC, VARIOUS SKIDS, AUTOMATION DIRECT:F0-04AS1	In Stock	Medium	N/A	
VALVE, BALL 1.5", STAINLESS STEEL, MCMASTER CARR: 45995K84	In Stock	Low	N/A	
PRESSURE SWITCH, BARKSDALE:X1T-4100-25	In Stock	Medium	N/A	
PRESSURE SWITCH, DRUCKSCHALTER: D1 TM80 SS	In Stock	Medium	TBD	
LEVEL SWITCH MODULES, SURESITE: 87480	In Stock	Medium	N/A	
ELECTRICAL PACKAGE LOUVER ACTUATOR, ML4115B1008	In stock	Low	N/A	
MECHANICAL PACKAGE - VENTILATION THERMOSTAT, T631C1012	In Stock	Low	N/A	
E-CELL STACK FITTINGS KIT, GENERAL ELECTRIC:3019638	In Stock	Low	N/A	
SINGLE POLE RELAYS - VARIOUS SKIDS, AUTOMATION DIRECT:781-1C-120A	In Stock	Low	N/A	
IGV ACT HYD FLUID FILTER- DIFF PRESS HIGH SWITCH, MOOG:G4444-2	In Stock	Medium	N/A	
MULTIFUNCTION MONITOR - ORP OR CONDUCTIVITY, RYAN HERCO:5924-562	In Stock	Low	N/A	
24VDC POWER SUPPLY, AUTOMATION DIRECT:PSB24-060D	In stock	Low	N/A	
ORP SENSOR, RYAN HERCO:5909-751, RAW WATER PUMP - VARIOUS SKIDS	In Stock	Medium	N/A	
CONDUCTIVITY SENSOR - RO, RYAN HERCO:5926-200	In Stock	Medium	N/A	
MANIFOLD, PRESSURE TRANSMITTER ROSEMOUNT 0305RC22B11	In Stock	Low	N/A	
ATOMIZING AIR HEADER PRESSURE GAUGE, PRESSURE TRANSMITTER, ROSEMOUNT:3051S2TG3A2A11A1AM5Q4	In Stock	Low	N/A	
BLUE MOISTURE INDICATOR, INGERSOLL RAND 705001-SP	In Stock	Low	N/A	
THERMOMETER, RESISTANCE SIEMENS:WQ 0233 2XPT100, INSTALLATION LENGTH 250MM, HAN 8D	In Stock	Low	N/A	
THERMOCOUPLE, SHELL SIEMENS:MQ 0206-PVDF8 3XTC(K), INSTALLATION LENGTH 375MM, HAN 8D	In Stock	High	N/A	
FUEL OIL UNLOADING FLOW LIQUID TURBINE FLOWMETER, HOFFER FLOW CONTROLS: HO SERIES/6X6-75-1250-CB-1M/XE2-F1CS-EXP	In Stock	Medium	N/A	
HYDRUALIC FLUID PUMP #1 - DISCHARGE PRESSURE INDICTATOR, REXROTH:2-1/2/1500PUA31-10A-4 JIC	In Stock	Low	N/A	
HYDRUALIC FLUID CONDITIONING LOOP - FILTER DIFFERENTIAL PRESSURE SWITCH, PALL:RC0113CZ090H	In Stock	Low	N/A	
RAW WATER FLOW MAGNETIC FLOWMETER, ROSEMOUNT:8705TSA060C1W0N0G1	In Stock	Low	N/A	
RAW WATER STORAGE TANK LEVEL RADAR - LEVEL TRANSMITTER, ROSEMOUNT:5402AH1E64SPVCAM1C1S3	In Stock	Low	N/A	
RAW WATER PUMP 1 & 2, DISCHARGE GAUGE, PRESSURE TRANSMITTER, ROSEMOUNT: 3051S2TG2A2A11A1AB4M5Q4	In Stock	Low	N/A	
REGULATOR, SIGNAL PRESSURE STAGE 2 TEMPERATURE CONTROL VALVE - AIR SIGNAL PRESSURE REGULATOR, FISHER:67CF-1663-38656	In Stock	Low	N/A	
LP COMPRESSOR BLEED VALVE SOLENOID, ASCO:JKC8316G034V	In Stock	Medium	N/A	
COMPRESSOR BLADE PATH THERMOCOUPLE, DUPLEX TYPE K	In Stock	High	N/A	
STARTING PACKAGE TORQUE CONVERTER PRESSURE GAUGE, KOENIG:BAC-160-25	In Stock	Low	N/A	
CAPSUHELIC GUAGE 0-6" W.C., PNEUMAFIL:551646-B1	In Stock	Low	N/A	
INTAKE AIR STATIC FINAL-FILTER - DIFFERENTIAL PRESSURE INDICTATOR, DWYER INSTRUMENTS:4006	In Stock	Low	N/A	
INTAKE AIR STATIC PRE-FILTER - DIFFERENTIAL PRESSURE INDICTATOR, DWYER INSTRUMENTS:4002	In Stock	Low	N/A	
CAPSUHELIC GAUGE 0-2" W.C., PNEUMAFIL:S51646-B6	In Stock	Low	N/A	
PRESSURE TRANSMITTER 0-300 PSI 4-20MA, ROSEMOUNT:3051TA3A2B21AES	In Stock	Medium	N/A	
PRESSURE REGULATOR - AIR SUPPLY FROM INST AIR COMPRESSOR, FISHER:FS64-29	In Stock	Medium	N/A	
INSTR. AIR COMPRESSOR PRESSURE GAUGE, AIR CENTERS OF FLORIDA:5ZP76	In Stock	Medium	N/A	
PRESSURE GAUGE - FOR INSTR AIR COMPRESSOR, ASHCROFT:45-13772204b, RANGE:0-200 PSI	In Stock	Low	N/A	

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
PRESSURE REGULATING GAUGE - AIR SUPPLY FROM INSTR AIR COMPRESSOR, FAIRCHILD:4066AT	In Stock	Low	N/A	
PRESSURE GAUGE 0-160PSI, LIQUID FILLED BACK MOUNT, STAINLESS STEEL, AUTOMATION DIRECT:G25-SL160-4LB	In Stock	Low	N/A	
PRESSURE GAUGE 0-100PSI, LIQUID FILLED LOWER MOUNTED, STAINLESS STEEL, AUTOMATION DIRECT:G25-SD100-4LS	In Stock	Low	N/A	
PRESSURE GAUGE 0-100PSI, LIQUID FILLED BACK MOUNTED, STAINLESS STEEL, AUTOMATION DIRECT:G25-SD100-4CS	In Stock	Low	N/A	
PREESSURE GAUGE 0-500PSI, LIQUID FILLED BACK MOUNTED, STAINLESS STEEL, DWYER INSTRUMENTS:SGY-D11142N-GF	In Stock	Low	N/A	
PRESSURE GAUGE 0-500 PSI, LIQUID FILLED LOWER MOUNTED, STAINLESS STEEL, DWYER INSTRUMENTS:SGY-D11122N-GF	In Stock	Low	N/A	
FLOW DIVIDER, JAHNS HYDRAULIK:MTO-2-5-G	In Stock	Medium	N/A	
TRANSMITTER, DEW POINT -100F -40F AND -100F, INGERSOLL RAND P/N 23182603	In Stock	Medium	N/A	
TRUCK UPLOADING GROUND VERIFICATION MONITOR, 8030-120 GROUND VERIFICATION MONITOR, CIVACON	In Stock	Low	N/A	
MOTOR, FLAP ACTUATOR JOHNSON CONTROLS, JCI M9132-GGA-1	In Stock	Low	N/A	
BRUSH, CARBON MOTOR 1 SET = 2 PIECES, ABB: GPFX052143P0098	In Stock	Medium	N/A	
GENERATOR JACKING OIL - SOLENOID VALVE, SUN HYDRAULICS:DLDA-MCN	In Stock	Medium	N/A	
MOTOR, 10 HP DC TURNING GEAR KOENIG: DG6711A	In Stock	High	N/A	
MOTOR, BALDOR BALDOR:VEM3770T NEMA	In Stock	Medium	N/A	
TURNING GEAR MOTOR BRUSH SET, 419904-51AC	In Stock	Low	N/A	
COUPLING, PUMP/MOTOR SIZE 1040T20, FLEXIBLE GRID TYPE, VERTICAL ORIENTATION, MANUFACTURER:FALK	In Stock	Low	N/A	
RELAY, DPDT 120VAC RCP8002 120AC	In Stock	Medium	N/A	
RELAY, TPDT 120VAC RCP1103 120AC	In Stock	Medium	N/A	
CUT-OUT, AUTO AUTO CUT-OUT, CHROMOLOX:168-053169-1 05	In Stock	Low	N/A	
FUSE, AGC 1A 250V AGC 1	In Stock	Low	N/A	
FUSE, AGC 3A 250V	In Stock	Low	N/A	
FUSE, POWER CLASS J 45A A4J45	In Stock	Low	N/A	
FUSE, PRIMARY 20A ATQR20	In Stock	Low	N/A	
FUSE, SECONDARY 8A ATQR8	In Stock	Low	N/A	
CONTACTOR, 50A 120VAC 42CF35AF	In Stock	Low	N/A	
FUSE, PANEL HEATER 4.5A PANEL HEATER FUSE 4.5A, ATQR4.5	In Stock	Low	N/A	
FUSE, AC 25A ATQR25	In Stock	Low	N/A	
FUSE, SIEMENS PG SIEMENS PG 840C208FO1	In Stock	Low	N/A	
FUSE, 15.0A BUSSMAN:LP-CC-15.0	In Stock	Low	N/A	
FUSE, 5.0A BUSSMAN:LP-CC-5.0	In Stock	Low	N/A	

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FUSE, 1.0A BUSSMAN:LP-CC-1	In Stock	Low	N/A	
FUSE, 2.0A 300 VDC BUSSMAN:LP-CC-2	In Stock	Low	N/A	
FUSE, 3.0A BUSSMAN:LP-CC-3.0	In Stock	Low	N/A	
FUSE, 12A FUSE 12A, SIEMENS:S00232012	In Stock	Low	N/A	
FUSE, 2AMP FUSE 2 AMP, GMC-2-A, BUSSMAN:GMC-2-A	In Stock	Low	N/A	
FUSE, 3AMP GMC-R FUSE 3AMP, BUSSMAN:GMC-3-R	In Stock	Low	N/A	
FUSE, 3A E-CELL E-CELL FUSE 3A, BUSSMAN:3060756	In Stock	Low	N/A	
FUSE, 25A E-CELL E-CELL FUSE 25A, BUSSMANN:1154697	In Stock	Low	N/A	
FUSE, 2A E-CELL E-CELL FUSE 2A, BUSSMANN:3060755	In Stock	Low	N/A	
FUSE, 6A GMC-6A 6AMP, GMC-6A, BUSSMANN:LWT7345	In Stock	Low	N/A	
FUSE, 1.25A GMC-1.25A FUSE 1.25 AMP, GMC-1.25-A, BUSSMANN:LWT9119	In Stock	Low	N/A	
FUSE, 8A E-CELL E-CELL FUSE 8A, MERSEN ELECTRIC POWER:3060752	In Stock	Low	N/A	
REPLACEMENT FUSE FOR AC PIMS, BENTLY NEVADA:1720025	In Stock	Low	N/A	
CONTACT BLK 1NC, SIEMENS:52BAK	In Stock	Low	N/A	
PILOT LIGHT ASSEMBLY AMBER 120VAC, A13200-05	In Stock	Low	N/A	
MODULE, TMR I/O I/O MODULE WITH INTERNAL BARRIERS - (INTERNAL TERMINATIONS)(4 X PROX/ACCEL)	In Stock	High	N/A	
MODULE, TMR I/O PROX/SEISMIC TMR I/0 WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:126632-01	In Stock	High	N/A	
MODULE, PROX/VELOM I/O PROX/VELOM I/0 MODULE WITH INTERNAL TERMINATIONS, BENTLY NEVADA:140471-01	In Stock	High	N/A	
MODULE, PROX/VELOM I/O PROX/VELOM I/O MODULE WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:140482-01	In Stock	High	N/A	
MODULE, SHAFT ABSOLUTE SHAFT ABSOLUTE I/O MODULE WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:138708-01	In Stock	High	N/A	
PROX/SEISMIC I/O MODULE WITH EXTERNAL TERMINATIONS, BENTLY NEVADA:128240-01	In Stock	High	N/A	
I/O MODULE WITH INTERNAL BARRIERS - (INTERNAL TERMINATIONS) (4 X VELOMITER), BENTLY NEVADA:135489-03	In Stock	High	N/A	
SHAFT ABSOLUTE I/O MODULE WITH - EXTERNAL TERMINATIONS, BENTLY NEVADA:138700-01	In Stock	High	N/A	
PROX/SEISMIC I/O MODULE WITH INTERNAL TERMINATIONS, BENTLY NEVADA:128229-01	In Stock	High	N/A	
I/O MODULE WITH INTERNAL BARRIERS - (INTERNAL TERMINATIONS), (2 X PROX/ACCEL + 2 X VELOMITER), BENTLY NEVADA:135489-02	In Stock	High	N/A	
DISCRETE INTERNAL BARRIERS I/O MODULE WITH INTERNAL TERMINATIONS, BENTLY NEVADA:136703-01	In Stock	High	N/A	
3500/42M PROXIMITOR/SEISMIC MONITOR, BENTLY NEVADA:140734-02	In Stock	High	N/A	
DISCRETE I/O MODULE WITH - EXTERNAL TERMINATIONS, BENTLY NEVADA:133434-01	In Stock	High	N/A	
3500 BUFFERED SIGNAL OUTPUT MODULE, BENTLY NEVADA:147364-01	In Stock	High	N/A	
DISCRETE I/O MODULE WITH - INTERNAL TERMINATIONS, BENTLY NEVADA:133422-01	In Stock	High	N/A	
115VAC PILOT LAMP - VARIOUS SKIDS, RADWELL INTERNATIONAL:D5N130	In Stock	Low	N/A	
3500/50 MODULE, BENTLY NEVADA:133388-02	In Stock	High	N/A	

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
WEATHER STATION DRY BULB TEMP A, VAISALA: HMT3301A0B101CGAB200B01CABAA1	In Stock	Low	N/A	
R-DIODE SIEMENS PG:840C411F04	In Stock	Medium	N/A	
F-DIODE SIEMENS PG:840C411F03	In Stock	Medium	N/A	
CAPACITOR ASSEMBLY,RC SIEMENS PG:153C684	In Stock	Medium	N/A	
DESICCANT, 4-8 GRADE D INGERSOLL RAND 50# BAG	In Stock	Low	N/A	
ELECTRICAL PACKAGE THERMAL DETECTOR, KIDDE-FENWAL:27121-160	In Stock	Low	N/A	
MECHANICAL PACKAGE THERMAL DETECTOR, KIDDE-FENWAL:27121-225	In Stock	Low	N/A	
SMOKE DETECTOR, NOTIFIER:FSI-851	In Stock	Low	N/A	
TURBINE ENCLOSURE THERMAL DETECTOR, KIDDE-FENWAL:27121-325	In Stock	Medium	N/A	
E-CELL SOLENOID VALVE, EMERSON:3022390	In Stock	Low	TBD	
STAGE #3 DISC CAVITY TEMPERATURE - CONTROL VALVE, 3", FISHER:A41-1032425AS	In Stock	High	N/A	
LO BEARING PRESSURE REGULATING VALVE, FISHER:44 ACTUATOR 4 BODY 655ED	In Stock	Medium	N/A	
INLET SHUTTLE VALVE, SURESITE:4010031	In Stock	Low	N/A	
TRANSMITTER, GROUND FAULT SIEMENS PG:153C691G02	In Stock	Medium	N/A	
BEARING LUBE OIL SUPPLY TEMPERATURE - THERMOCOUPLE, PYCO:02-3174 W/16-OO49 (TYPE K)	In Stock	Medium	N/A	
TURBINE GENERATOR SPEED PICK UP, BRAUN:A5S08T165C0.5	In Stock	High	N/A	
GENERATOR MAIN JACKING OIL PUMP - PRESSURE SWITCH, BARKSDALE:B1T-H32	In Stock	Medium	N/A	
HYD FLUID CONDITIONING LOOP - PRESSURE INDICATOR, 2-1/2", REXROTH:/400PUA31-10A-4 JIC	In Stock	Low	N/A	
HYD FLUID RESERVOIR LOW LEVEL SWITCH, REXROTH:500PUA31-05 2 SW	In Stock	Low	N/A	
SPEED CONTROL, BRONZE, NUMATICS A1MN, EMERSON:LWT21254	In Stock	Low	N/A	
ORP PREAMPLIFIER, RYAN HERCO:5905-273	In stock	Medium	N/A	
THERMOCOUPLE,DISC CAVITY LPG INDUSTRIES INC. P/N: 2335C32-001 (THERMOCOUPLE ONLY)	In Stock	Medium	N/A	
THERMOCOUPLE,DISC CAVITY DISC CAVITY THERMOCOUPLE LPG INDUSTRIES INC. P/N: 2335C32-004 (THERMOCOUPLE ONLY)	In Stock	Medium	N/A	
THERMOCOUPLE,DISC CAVITY DISC CAVITY THERMOCOUPLE LPG INDUSTRIES INC. P/N: 2335C32-003 (THERMOCOUPLE ONLY)	In Stock	Medium	N/A	
TWO LAYER CONTACT BRUSH, SIEMENS:EMT 513-005, 20X8X32 EG5U/AG20	In Stock	Medium	N/A	
POLISHING LOOP PRESSURE RELIEF VALVE, REXROTH:RR00347261	In Stock	Low	N/A	
HP BLEED VALVE OPEN LIMIT SWITCH, WESTLOCK:2007XBY/4SPDT	In Stock	Medium	TBD	
LP BLEED VALVE OPEN LIMIT SWITCH, WESTLOCK:2007XBY/6SPDT	In Stock	Medium	TBD	
TORQUE CONVERTER SPEED PICK UP, ELECTRO CORP:725833	In Stock	Medium	Mid Nov	
SWITCH, STAGER 48-03 STAGER (110V) SERIES 48-03 - W/HOMING SWITCH, OSMONICS: 48-03	In Stock	Low	N/A	
VALVE, ACTUATOR ACTUATOR, VALWORX:561055A, ELECT FOR RO INLET VALVE & RINSE VALVE -RO SKID	In Stock	Low	N/A	

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
SENSOR, VIBRATION GENERATOR TURBINE END VIBRATION X, BENTLY NEVADA: 3300 SERIES	In Stock	High	N/A	
TURBINE EXHAUST END VIBRATION X RELATIVE SENSOR, BENTLY NEVADA: 3500 SERIES	In stock	High	TBD	
ANLZR,COND,8619,24V,4-20MA,BUR WATERTECH SERVICES: 3059496	In Stock	Medium	N/A	
E-CELL INLINE FLOW SENSOR, BURKERT: 3059466	In Stock	Medium	TBD	
E-CELL PRESSURE SWITCH, AUTOMATION DIRECT:3039305	In Stock	Medium	N/A	
PLC-GE, QP+, 7" COLOR, 24VDC, WATERTECH SERVICES: 3134672	In Stock	Medium	N/A	
SENSOR-FLOW, BUR, INLINE, SE30 WATERTECH SERVICES: 3059466	In Stock	Medium	N/A	
E-CELL FLOW SENSOR 8020 SHORT, BURKERT:3033067	In Stock	Medium	TBD	
METER, 30-199.9 MV E-CELL 30-199.9 MV METER, GENERAL ELECTRIC: 3038073	In Stock	Low	N/A	
TRANSMITTER, PRESSURE E-CELL PRESSURE TRANSMITTER, BURKERT:3059497	In Stock	Medium	N/A	
COMBUSTOR SHELL PRESS TRANSMITTER, SIEMENS:7MF4233-1HA10-1AC1-Z+B21+Y01+Y15	In Stock	High	N/A	
BEARING OIL PRESSURE TRANSMITTER, SIEMENS: 7MF4033-1CA10-1AC7-Z+B21+A02+Y01+Y21+Y15+Y16	In Stock	Low	N/A	
THERMOCOUPLE, TEMPERATURE STARTING PACKAGE MOTOR STATOR - TEMPERATURE THERMOCOUPLE, S102629PD-120T305Z96	In Stock	Medium	Mid Nov	
THERMOCOUPLE, TEMPERATURE STARTING PACKAGE MOTOR FORWARD - BEARING TEMPERATURE T/C , S16820PD-300Z96	In Stock	Medium	Mid Nov	
SWITCH, AUXILIARY AUX SWITCH, SIEMENS:A01JLD64	In Stock	Low	N/A	
OIL, COMPRESSOR ALL SEASON SELECT OIL, INGERSOLL RAND 38436721	In Stock	Medium	N/A	
KIT, E-CELL CLAMP SET: 3033064	In Stock	Low	N/A	
PLC-AB, ANLG, 4-20, MA, 4IN, 1762-IF4: 1227751	In Stock	Medium	N/A	
SENSOR, CONDUCTIVITY SENSOR-COND,PVDF,0.01CEL,BUR,8220: 3059495	In Stock	Medium	N/A	
TERMINAL-FUSE,1P TYPE CC,AB: 1235396	In Stock	Low	N/A	
TERMINAL-FUSE,LED,10-57VAC/VDC,1492-H5: 1152328	In Stock	Low	N/A	
FUSE-DELAY,600V,CLASS CC,6A,BUS: 3054531	In Stock	Low	N/A	
FUSE-BLOCK,600V,100A,MODULAR,BUS: 3020468	In Stock	Low	N/A	
FUSE-FAST,700V,80A,BUS: 3010595	In Stock	Low	N/A	
FUSE-DELAY,600V,CLASS CC,3.5A,LP-CC,BUS: 3126308	In Stock	Low	N/A	
FUSE-DELAY,600V,CLASS CC,2A,BUS: 3060753	In Stock	Low	N/A	
FUSE-DELAY,600V,CLASS CC,4A,LP-CC-4,BUS: 3060754	In Stock	Low	N/A	
FUSE-FAST,250V,CERAMIC,1A,BUS: 3055154	In Stock	Low	N/A	
FUSE-DELAY,600V,CLASS CC,1A,BUS: 3029658	In Stock	Low	N/A	
FUSE-BLOCK,690V,MIDGET,MERSEN,USM1: 3146420	In Stock	Low	N/A	
PLC-GE,QP+,7" COLOR,24VDC,IC755CSW07CDA: 3134672	In Stock	Medium	N/A	
PLC-AB,DIGITAL,24VDC,8 IN,1762-IQ8: 1224240	In Stock	Medium	N/A	
PLC-AB,20DI/12DO/4AI/4AO,1766-L32BXBA: 3060729	In Stock	Medium	N/A	
XFMR-CONTROL XFMR-CNTRL,230/575,115-50/60,500VA,SQ-D: 3060802	In Stock	Medium	N/A	

Critical Spares Status
Holyrood - Gas Turbine

Recommended Component	Stock	Risk Score	Expected Delivery	Comments
POWER SUPPLY, 24VDC POWER-SUP,PHOENIX,TRIO,24VDC,5A: 3037802	In Stock	Low	N/A	
SWITCH, PUSH BUTTON SWITCH-P-B,IEC,1NC,MAN,BLK,800FP: 3007466	In Stock	Low	N/A	
SWITCH-PUSH PULL,24VDC,IEC,MUSHRM,IL,RED: 3006380	In Stock	Low	N/A	
RELAY,3PDT,24VDC,10A,700-HA33Z24: 1152099	In Stock	Medium	N/A	
RELAY,SPDT,24VDC,10A,FINDER,40.31: 3040656	In Stock	Medium	N/A	
E-CELL EDI STACKS, MK3X	In Stock	Medium	N/A	
SEAL MECHANICAL FOR FORWARDING PUMPS: 98511844	In Stock	Low	N/A	
SEAL MECHANICAL FOR RO PUMP: 9644664	In Stock	Low	N/A	
FLOW SENSOR TURBINE W/ CABLE - VARIOUS SKIDS: CW237	In Stock	Low	N/A	
BLUEWHITE CHEMICAL INJECTION PUMP: A1N00F-4T	In Stock	Low	N/A	
SOFT STARTER FOR RO: TLQATS2222D47S6U	In Stock	Low	N/A	
PLC, PREPROGRAMMED- RO SKID PREPROGRAMMED PLC - RO SKID: DO-06DR-RO	In Stock	Medium	N/A	
SWITCH, 3-POSITION, 22MM 3-POSITION SWITCH 22MM: GCX3320-22	In Stock	Low	N/A	
ACTUATOR ELECT FOR RO INLET VA WATERTECH SERVICES: V561055A	In Stock	Low	N/A	
SWITCH, 2-POSITION, 22MM 2-POSITION SWITCH 22MM: GCX3300	In Stock	Low	N/A	
COLOR TOUCHSCREEN INTERFACE, 6" PREPROGRAMMED 6" COLOR TOUCHSCREEN OPERATOR INTERFACE PERMEATE PUMP SKID: WSEA9-PERM	In Stock	Medium	N/A	
PLC, PREPROGRAMMED - PERMATE SKID PREPROGRAMMED PLC - PERMEATE PUMP SKID: DO-06DR-D-PERM	In Stock	Medium	N/A	
PLC, PREPROGRAMMED - RAW WATER SKID PREPROGRAMMED PLC - RAW WATER PUMP SKID: DO-06DR-RW	In Stock	Medium	N/A	
COLOR TOUCHSCREEN INTERFACE, 6" PREPROGRAMMED 6" COLOR TOUCHSCREEN OPERATOR INTERFACE RAW WATER PUMP SKID: WSEA9-RW	In Stock	Medium	N/A	
COLOR TOUCHSCREEN INTERFACE, 8" PREPROGRAMMED 8" COLOR TOUCHSCREEN OPERATOR INTERFACE REVERSE OSMOSIS SKID: WSEA9-8RO	In Stock	Medium	N/A	
COLOR TOUCHSCREEN INTERFACE, 10" PREPROGRAMMED 10" COLOR TOUCHSCREEN OPERATOR INTERFACE REVERSE OSMOSIS SKID: WSEA9-10 RO	In Stock	Medium	N/A	
ORP PREAMPLIFIER WATERTECH SERVICES: 5909-273	In Stock	Low	N/A	
CONDUCTIVITY MODULE FOR MULTIFUNCTION MONITOR - RO: 5908.494	In Stock	Low	N/A	

Appendix G

Critical Spares Status Listing – Hydraulic Generation

newfoundland labrador hydro
a nalcor energy company

newfoundland labrador hydro
a nalcor energy company

Critical Spares Stock Status

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	

Critical Spare Component	Stock Status	Comments
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	
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	

Critical Spare Component	Stock Status	Comments
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 QO2 - PANEL EE - ARC-CHUTE, ABB UXAB269399R012	In Stock	
BDE - FIELD BREAKER QO2 - PANEL EE - BREAKER, ABB HIER466757P2331 (entire unit)	In Stock	
BDE - FIELD BREAKER QO2 - PANEL EE - CONTACT, ABB UXAB239299R0003	In Stock	
BDE - FIELD BREAKER QO2 - PANEL EE - CONTACT, ABB UXAB239Z60R002	In Stock	
BDE - FIELD BREAKER QO2 - PANEL EE - CONTACT, ABB UXAB269399R032	In Stock	
BDE - FIELD BREAKER QO2 - 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	

Critical Spare Component	Stock Status	Comments
BDE - GOVERNOR - BRACKET, WOODWARD 11002-57	In Stock	
BDE - GOVERNOR - BRACKET, WOODWARD 91588	In Stock	
BDE - GOVERNOR - BUSHING, DASHPOT - LARGE	In Stock	
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	

Critical Spare Component	Stock Status	Comments
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, 1250OH 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 V DC	In Stock	
BDE - GOVERNOR - SOLENOID, 125VDC 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	

Critical Spare Component	Stock Status	Comments
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 13.8KV	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 14400KV	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	

Critical Spare Component	Stock Status	Comments
BDE - MODULE, ANALOG QUANTUM	In Stock	
BDE - MODULE, CPU MODICON	In Stock	
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, 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	

Critical Spare Component	Stock Status	Comments
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 15HP 575V	In Stock	
BDE - MOTOR, ELECT 15HP 575V	In Stock	
BDE - MOTOR, SYNCHRONIZING	In Stock	
BDE - MOTOR, SYNCHRONIZING	In Stock	
BDE - NEUTRAL GROUND TRANSFORMER	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 - 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	

Critical Spare Component	Stock Status	Comments
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, 125VDC 8A	In Stock	

Critical Spare Component	Stock Status	Comments
BDE - PLC, Model Quantum- Modicon - POWER SUPPLY, 24 VDC	In Stock	
BDE - PLC, Model Quantum- Modicon - REMOTE I/O HEAD, MODICON	In Stock	
BDE - POTENTIOMETER, 1250OH 0.24A	In Stock	
BDE - POTENTIOMETER, 1250OH 0.24A	In Stock	
BDE - POTENTIOMETER, 1250OH 0.24A	In Stock	
BDE - POTENTIOMETER, 1250OH 0.24A	In Stock	
BDE - POTENTIOMETER, 1K OH .244 A	In Stock	
BDE - POTENTIOMETER, 1K OH .244 A	In Stock	
BDE - POTENTIOMETER, 25W 50 OHMS	In Stock	
BDE - POTENTIOMETER, 25W 50 OHMS	In Stock	
BDE - POTENTIOMETER, SPEED	In Stock	
BDE - POTENTIOMETER, SPEED	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, 125VDC 8A	In Stock	
BDE - POWER SUPPLY, 125VDC 8A	In Stock	
BDE - POWER SUPPLY, 125VDC 8A	In Stock	
BDE - POWER SUPPLY, 125VDC 8A	In Stock	
BDE - POWER SUPPLY, 125VDC 8A	In Stock	
BDE - POWER SUPPLY, 125VDC 8A	In Stock	
BDE - POWER SUPPLY, 24 VDC	In Stock	

Critical Spare Component	Stock Status	Comments
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, 24VDC	In Stock	
BDE - POWER SUPPLY, 24VDC	In Stock	
BDE - POWER SUPPLY, 300W	In Stock	
BDE - POWER SUPPLY, 300W	In Stock	
BDE - POWER SUPPLY, 48VDC 240W	In Stock	
BDE - POWER SUPPLY, 48VDC 240W	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	
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	

Critical Spare Component	Stock Status	Comments
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 1600A 3POLE	In Stock	
BDE - RELAY, UNDERVOLTAGE 125VAC	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 statationary	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	

Critical Spare Component	Stock Status	Comments
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 UXAB289199215	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	
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, 1250OH 0.24A	In Stock	
BDE - UNIT 7 GOVERNOR - PUMP, OIL IMO A3DB-275	In Stock	
BDE - UNIT 7 GOVERNOR - RETAINER, SWITCH	In Stock	

Critical Spare Component	Stock Status	Comments
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, 125VDC 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	
BDE - Unit 7 PMG - BEARING, WW 111006	In Stock	

Critical Spare Component	Stock Status	Comments
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	

Critical Spare Component	Stock Status	Comments
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	
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	
BDE- C/T 50/51	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, 600V	In Stock	
CAT - BEARING KIT, IR 32127516	In Stock	

Critical Spare Component	Stock Status	Comments
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, ISOLATING	In Stock	
CAT - CONTROLLER, PLC DL05	In Stock	
CAT - Electronic Governor - BUSHING CABLE PROP VLV	In Stock	
CAT - Electronic Governor - CONNECTOR, MLDT ROD BALL	In Stock	

Critical Spare Component	Stock Status	Comments
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	

Critical Spare Component	Stock Status	Comments
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	
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	

Critical Spare Component	Stock Status	Comments
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 60HZ	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 600Amp	In Stock	
CAT - EXCITER NO. 2 - Shunt Volltage 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	Item #68001594
CAT - GENERATOR - Brake ring	In Stock	Item #58608396
CAT - GENERATOR - Brake Solenoid	In Stock	Item #65300060
CAT - GENERATOR - Brake valve	In Stock	Item #68001592
CAT - GENERATOR - INSLTR, SLIP RING	In Stock	Item #68001591

Critical Spare Component	Stock Status	Comments
CAT - GENERATOR - MODULE, TYP 1CD 108 M 2-02 vibro-meter	In Stock	Item #60101058
CAT - GENERATOR - OVERCURRENT relay	In Stock	
CAT - GENERATOR - RELAY, TIME DELAY .6 - 1.0	In Stock	Item #58800486
CAT - GENERATOR - rotating ring	In Stock	Item #68001626
CAT - Generator Bearing - Cooler	In Stock	
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 24V	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	

Critical Spare Component	Stock Status	Comments
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) - Amplifer/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	
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	

Critical Spare Component	Stock Status	Comments
CAT - POWER SUPPLY, 110-220 VOLT	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 V DC	In Stock	
CAT - STATION SERVICE SYSTEM - Contact 1600Amp	In Stock	
CAT - STATION SERVICE SYSTEM - Contact Moving Arc	In Stock	
CAT - STATION SERVICE SYSTEM - Contat Stationary Arc	In Stock	
CAT - STATION SERVICE SYSTEM - CT 400-800	In Stock	

Critical Spare Component	Stock Status	Comments
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 - 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	

Critical Spare Component	Stock Status	Comments
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 32133951	In Stock	
Cat- minimal pressure Valve	In Stock	
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	

Critical Spare Component	Stock Status	Comments
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 - Excitation Transformer	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	
GCL - FILTER, INLINE	In Stock	
GCL - FILTER, INLINE	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, 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, 1250A 690V 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 Suppresion	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	

Critical Spare Component	Stock Status	Comments
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, 18-32VDC	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	
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 - Media converter	In Stock	
GCL - MLDT	In Stock	

Critical Spare Component	Stock Status	Comments
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 - PowerSupply, 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 0.32-1.0A	In Stock	
GCL - Relay, Overload 1.6-5.0A	In Stock	
GCL - Relay, Overload 3.7-12A	In Stock	
GCL - RELAY, 11 PIN 24V	In Stock	
GCL - RELAY, 110-125V	In Stock	
GCL - RELAY, 110-125V ABB	In Stock	
GCL - RELAY, 110-125VDC	In Stock	
GCL - RELAY, 120V 10A DPDT	In Stock	
GCL - RELAY, 14 PIN 110/120 VAC	In Stock	
GCL - RELAY, 8 PIN 110/120VAC(S)	In Stock	
GCL - RELAY, 8 PIN 120V AC/DC	In Stock	
GCL - RELAY, 8 PIN DPDT	In Stock	
GCL - RELAY, ANTI-PUMP	In Stock	
GCL - RELAY, AUX 48VDC	In Stock	

Critical Spare Component	Stock Status	Comments
GCL - RELAY, BREAKER FAIL	In Stock	
GCL - RELAY, BUSHHOLZ 250V 2AMP	In Stock	
GCL - RELAY, CONTROL 120V 60HZ	In Stock	
GCL - RELAY, CONTROL 120V 60HZ	In Stock	
GCL - RELAY, CONTROL 120V 60HZ	In Stock	
GCL - RELAY, CONTROL 125VDC	In Stock	
GCL - RELAY, CONTROL 24VDC	In Stock	
GCL - RELAY, FAST TRIPPING 125V	In Stock	
GCL - RELAY, INTERPOSING	In Stock	
GCL - RELAY, LOCKOUT 125V	In Stock	
GCL - RELAY, LOCKOUT 125V	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 110V	In Stock	
GCL - RELAY, PUSHBUTTON 125V	In Stock	
GCL - RELAY, RESIDUAL	In Stock	
GCL - RELAY, THERMISTOR 110V	In Stock	
GCL - RELAY, TIME 24-230V 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	

Critical Spare Component	Stock Status	Comments
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, 770mm x 730mm x 25mm	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	
GCL - Shoe, brake GE 6201B6815L005	In Stock	
GCL - Sleeve, Shaft	In Stock	
GCL - SOCKET, RELAY 14 PIN 5A	In Stock	
GCL - SOCKET, RELAY 8 PIN 7A	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 15A	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	

Critical Spare Component	Stock Status	Comments
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 -5TO55	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	
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	

Critical Spare Component	Stock Status	Comments
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 AMP 600 VOLT	In Stock	
HLK - BREAKER, 150A 600V	In Stock	
HLK - BREAKER, 225A 600V 3P	In Stock	
HLK - BREAKER, 600 VOLT 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	

Critical Spare Component	Stock Status	Comments
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 dissconnect	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	
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 SOLND	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	

Critical Spare Component	Stock Status	Comments
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	
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	

Critical Spare Component	Stock Status	Comments
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, 125VDC 8A	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 120V 60HZ	In Stock	
HLK - RELAY, CONTROL 48V	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	

Critical Spare Component	Stock Status	Comments
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 - Slip ring	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	
HLK - STATOR ASSEMBLY - Stator connection caps	In Stock	
HLK - STATOR WINDINGS - UNIT 1 - robel bars	In Stock	
HLK - STN SERVICE TRANFORMER (SST-1)	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, MERCOID 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	

Critical Spare Component	Stock Status	Comments
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	
PRV - BLOCK POWERTRAC, 115VAC/1	In Stock	
PRV - Circuit Breaker	In Stock	
PRV - COIL, GE 22-115-045-01	In Stock	
PRV - CONTACTOR, FIELD FLASHING	In Stock	
PRV - DIODE, GE 4001A1158JA	In Stock	

Critical Spare Component	Stock Status	Comments
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	

Critical Spare Component	Stock Status	Comments
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	
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	

Critical Spare Component	Stock Status	Comments
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	
CAT - Potential Transformer	On Order	OEM in the process of procuring the item.
GCL - Potential Transformer	On Order	OEM in the process of procuring the item.

Appendix H

Holyrood Supplemental Capital Projects – Monthly Update

newfoundland labrador hydro
a nalcor energy company

Holyrood Supplemental Capital Projects – Monthly Update

On April 7, 2020, Newfoundland and Labrador Hydro ("Hydro") filed its application for approval of capital projects necessary for the continued operation of the Holyrood Thermal Generating Station ("Holyrood TGS"). The application was approved on May 11, 2020 in Board Order P.U. 14(2020). In that Order, the Board directed Hydro to file monthly updates on the status of the approved capital projects from June to September 2020 and, thereafter, to provide updates as part of the Winter Readiness reports filed in October, November, and December of 2020.

Projects Overview

Four projects were approved in Board Order P.U. 14(2020):

- **Boiler Condition Assessment and Miscellaneous Upgrades:** Scope involves Level 2 condition assessments on internal components of the main steam generators (boilers) and associated external high energy piping to identify required refurbishment or replacement work. Hydro will also replace or refurbish components that are identified as requiring immediate intervention. This project also includes the completion of required miscellaneous upgrades of condition based deficiencies identified in the 2019 Condition Assessment and Miscellaneous Upgrades project.
- **Overhaul Unit 2 Turbine Valves:** Scope includes the total disassembly, detailed internal inspection, refurbishment, and reassembly of all major steam valves. Valve refurbishment includes replacement of any identified damaged components.
- **Overhaul Unit 3 Boiler Feed Pump West:** Scope includes disassembly, inspection, reassembly, and re-commissioning of the pump. During overhaul, parts, including the volute impeller cartridge, are replaced as necessary.
- **Overhaul Unit 2 Generator:** Scope includes disassembly of generator end shields, hydrogen seals, hydrogen coolers, and bearings; removal of the generator rotor from the stator; cleaning of internal components; detailed visual inspection and non-destructive evaluation of internal components; detailed measurement of clearances and alignments; mechanical integrity testing of windings and core wedges; and replacement or refurbishment of components found to be damaged.

Status Update

Project schedules and cost updates for the four projects are provided in Tables 1 to 4. All projects remain on schedule and on budget with the exception of the Unit 2 Generator Overhaul which is expected to be slightly over budget.[1] The Unit 2 Valve and Generator Overhaul projects are now complete and the field work associated with the Boiler Condition Assessment and Miscellaneous Upgrades project is also complete. The Unit 3 Boiler Feed Pump was successfully commissioned on November 18, 2020 during unit start-up.

Status of Units:

- Unit 1 planned maintenance outage is complete. Start-up commenced on August 25, 2020 and the unit was initially placed online on September 1, 2020. Unit 1 was removed from service on October 25, 2020 due to a failure of the West Boiler Feed Water Pump. The unit was returned to service at 85 MW on November 7, 2020. Following completion of repairs to the West Boiler feed Pump, Unit 1 was returned to full capacity on November 16, 2020.

[1] Attributed to additional work identified during execution (e.g., epoxy repair of stator winding end cap, re-babbiting of generator bearings, and additional time required to realign the generator following reassembly).

- Unit 2 planned maintenance outage is complete. Start-up commenced on October 20, 2020 and the unit was placed online on October 26, 2020 and has been in service since that time.
- Unit 3 planned maintenance outage is complete. The unit was converted from Synchronous Condenser to Generator mode on November 15, 2020.

Table 1: Project Status – Boiler Condition Assessment and Miscellaneous Upgrades

Project: Boiler Condition Assessment and Miscellaneous Upgrades	
Approved Budget:	3,056.7
Total Project YTD ($000)	2,969.0
Total Project Forecast ($000)	3,056.7

Major Milestones	Start Date	End Date	Status	Overall Project Update
Unit 3 Inspections	15-May-20	12-Jun-20	Complete	• Unit 3: No major findings requiring immediate attention were discovered during the Level 2 Condition Assessment. All work identified during the previous Level 2 Condition Assessment was completed in accordance with industry quality standards. • Unit 1: No major findings requiring immediate attention were discovered during the Level 2 Condition Assessment. All work identified during the previous Level 2 Condition Assessment was completed in accordance with industry quality standards. • Unit 2: No major findings requiring immediate attention were discovered during the Level 2 Condition Assessment. All work identified during the previous Level 2 Condition Assessment was completed in accordance with industry quality standards. • Condition Assessment Report: Now that all on site work has been completed, the condition assessment report is being finalized. • Expected to be completed on budget.
Unit 3 Refurbishments	15-May-20	12-Jun-20	Complete	
Unit 3 Major Findings	N/A	N/A	Complete	
Unit 1 Inspections	15-Jun-20	21-Aug-20	Complete	
Unit 1 Refurbishments	15-Jun-20	21-Aug-20	Complete	
Unit 1 Major Findings	N/A	N/A	Complete	
Unit 2 Inspections	24-Aug-20	2-Oct-20	Complete	
Unit 2 Refurbishments	24-Aug-20	2-Oct-20	Complete	
Unit 2 Major Findings	N/A	N/A	Complete	
Condition Assessment Report	Jun-20	11-Dec-20	In progress	

Table 2: Project Status – Overhaul Unit 2 Turbine Valves

Project: Overhaul Unit 2 Turbine Valves	
Approved Budget:	2,919.5
Total Project YTD ($000)	2,891.0
Total Project Forecast ($000)	2,919.5

Major Milestones	Start Date	End Date	Status	Overall Project Update
Control Valves Disassembly	26-Jul-20	7-Aug-20	Complete	• Control Valves (x6) Control valve #6 valve stem runout was outside allowable tolerance. Valve stem was replaced with new. Control valve #2 stem was worn and runout was outside allowable tolerance. Valve stem was replaced with new. Control valve #1, #2 and #6 bushings were found to be fouled by scaling. Bushings were honed to remove scale. Control valve #3, #4 and #5 bushings' clearances were found to be greater than acceptable tolerance. Bushings were replaced with new. Upper Control Valve cam shaft was found to be out of tolerance for runout. Shaft was straightened to return it to acceptable runout tolerance. This finding is considered to be consistent with normal wear and tear for this component. All 6 crosshead bushings' (3 per control valve) clearances were found to be out of tolerance. Bushings were replaced with new. • Main Stop Valve (x1) Valve bushing clearances were found to be fouled by scaling. Bushings were honed to remove scale. Two of three poppet valves were lapped to restore sealing contact between valve discs and seat. NDE revealed cracks in vortex dam welds. Weld repairs were completed. This finding is considered to be consistent with normal wear and tear for this component. Insufficient unused peening lip area was remaining on valve cap peening lips to permit locking at reassembly. Weld repairs were completed to restore peening lips. NDE revealed a crack in one stud. Stud was replaced with new. • Reheat Stop/Intercept Valves (x2) Both Intercept Valves were lapped to restore sealing contact between valves and seats. Insufficient unused peening lip area was remaining on Intercept Valve peening lips to permit locking at reassembly. Weld repairs were completed to restore peening lips. NDE revealed linear indications on valve seat welds for both Stop Valves. Weld repairs were completed to restore seating surfaces. Both valve linkage anti-rotation pins were worn beyond reuse. Pins were replaced. • Blowdown Valve (x1) - No significant condition issues identified. • Extraction Steam Check Valves (x7) Four shafts were out of straightness tolerance, corroded and scored. Shafts were replaced with new. This finding is considered to be consistent with normal wear and tear for this component. All springs were found to be corroded beyond recommended re-use. Springs were replaced with new. • Expected to be completed on budget.
Control Valves Inspection	4-Aug-20	22-Aug-20	Complete	
Control Valves Refurbishment	4-Aug-20	21-Sep-20	Complete	
Control Valves Reassembly	20-Aug-20	21-Sep-20	Complete	
Main Stop Valve Disassembly	26-Jul-20	4-Aug-20	Complete	
Main Stop Valve Inspection	4-Aug-20	17-Aug-20	Complete	
Main Stop Valve Refurbishment	4-Aug-20	12-Sep-20	Complete	
Main Stop Valve Reassembly	22-Aug-20	12-Sep-20	Complete	
Reheat Stop/Intercept Valves Disassembly	26-Jul-20	4-Aug-20	Complete	
Reheat Stop/Intercept Valves Inspection	4-Aug-20	31-Aug-20	Complete	
Reheat Stop/Intercept Valves Refurbishment	4-Aug-20	15-Sep-20	Complete	
Reheat Stop/Intercept Valves Reassembly	25-Aug-20	15-Sep-20	Complete	
Blowdown Valve Disassembly	6-Aug-20	20-Aug-20	Complete	
Blowdown Valve Inspection	21-Aug-20	20-Aug-20	Complete	
Blowdown Valve Refurbishment	21-Aug-20	20-Aug-20	Complete	
Blowdown Valve Reassembly	25-Aug-20	26-Aug-20	Complete	
Extraction Steam Check Valves Disassembly	29-Jul-20	3-Aug-20	Complete	
Extraction Steam Check Valves Inspection	5-Aug-20	22-Aug-20	Complete	
Extraction Steam Check Valves Refurbishment	5-Aug-20	16-Sep-20	Complete	
Extraction Steam Check Valves Reassembly	24-Aug-20	16-Sep-20	Complete	
Commissioning	20-Oct-20	24-Oct-20	Complete	
Unit 2 Outage	6-Jul-20	24-Oct-20	Complete	

Table 3: Project Status – Overhaul Unit 3 Boiler Feed Pump West

Project: Overhaul Unit 3 Boiler Feed Pump West	
Approved Budget:	367.9
Total Project YTD ($000)	369.0
Total Project Forecast ($000)	369.0

Major Milestones	Start Date	End Date	Status	Overall Project Update
BFP Disassembly	25-May-20	27-May-20	Complete	• Through detailed inspection, the impeller shaft was found to be out of tolerance for straightness and runout. Hydro completed all required refurbishment including shaft replacement. Letter explaining root cause has been submitted by Flowserve and was provided to Liberty for review. • Final commissioning is complete. • Expected to be completed on budget.
Spare Volute Installed	28-May-20	28-May-20	Complete	
BFP Reassembled	28-May-20	10-Jun-20	Complete	
Offline Commissioning	10-Jun-20	12-Jun-20	Complete	
Volute Refurbishment	25-Jun-20	30-Sep-20	Complete	
Final Commissioning	15-Nov-20	18-Nov-20	Complete	

Table 4: Project Status – Overhaul Unit 2 Generator

Project: Overhaul Unit 2 Generator	
Approved Budget:	1,294.1
Total Project YTD ($000)	1,312.0
Total Project Forecast ($000)	1,358.8

Major Milestones	Start Date	End Date	Status	Overall Project Update
Disassembly of generator end shields, hydrogen seals, hydrogen coolers, and bearings	25-Jul-20	15-Aug-20	Complete	• Collector-end and Turbine-end Hydrogen Seal sealing faces were found to be damaged. Seals were replaced with new to restore sealing efficiency and minimize hydrogen loss. This finding is considered to be consistent with normal wear and tear for this component. • Two Stator Winding End-Caps damaged by a phenolic bolt that vibrated loose from the end-shield. Phenolic bolt lock nuts were epoxied in at reassembly. Bolts were installed in accordance with an inspection and test plan to ensure their security prior to closing unit. • Generator elevation relative to Turbine was found to be 0.012" high and out of tolerance when measured at the coupling. Incorrect alignment can result in issues with bearing temperature, vibration and premature bearing wear. Correct generator elevation was restored at reassembly. • #4 and #5 Generator Bearings were found to be wiped on the lower halves. These were sent off-island for re-Babbiting. Re-Babbited bearings were installed in the unit. This finding is considered to be consistent with normal wear and tear for this component. • Expected to be 5% over the approved project budget.
Removal of the generator rotor from the stator.	11-Aug-20	11-Aug-20	Complete	
Cleaning of Internal Components	16-Aug-20	21-Sep-20	Complete	
Detailed visual inspection and NDE of internal components	28-Jul-20	9-Sep-20	Complete	
Replacement or refurbishment of components found to be damaged (Hydrogen Seals, Generator Bearings and Stator Winding End-Caps)	14-Aug-20	4-Sep-20	Complete	
Generator Reassembly	4-Sep-20	18-Oct-20	Complete	
Commissioning	20-Oct-20	24-Oct-20	Complete	
Unit 2 Outage	6-Jul-20	24-Oct-20	Complete	