SEC Interrogatory #84

Interrogatory

Reference: D2-2-8; EB-2016-0152-L-4.3-1, Staff-72

Please provide a copy of all third-party and OPG internal audit oversight reports regarding the DRP that have not been filed in the application and were not filed on the record in EB-2016-0152.

Response

There are an extensive amount of third-party reports regarding the Darlington Refurbishment Program (DRP) that cover a variety of topics. The following is a list of third-party and OPG internal audit reports completed since EB-2016-0152.

1) Modus / Burns & McDonnell

   Reports are provided as Attachments (all confidential except Attachment 11) as listed:

   1. Independent Oversight Report on the Darlington Refurbishment Project – May 2017
   2. Independent Oversight Report on the Darlington Refurbishment Project – August 2017
   3. Independent Oversight Report on the Darlington Refurbishment Project – November 2017
   4. Independent Oversight Report on the Darlington Refurbishment Project – March 2018
   5. Independent Oversight Report on the Darlington Refurbishment Project – May 2018
   6. Independent Oversight Report on the Darlington Refurbishment Project – August 2018
   7. Independent Oversight Report on the Darlington Refurbishment Project – November 2018
   8. Independent Oversight Report on the Darlington Refurbishment Project – March 2019

      Burns/Modus Report Unit 3 Execution Estimate Darlington Refurbishment Project – March 2019 (see Ex. D2-2-7 Attachment 2)

9. Independent Oversight Report on the Darlington Refurbishment Project – May 2019
10. Independent Oversight Team Report on Darlington Refurbishment Project – August 2019

    Independent Oversight Team Report on Darlington Refurbishment Unit 3 Execution Estimate – November 2019 (see Ex. D2-2-7 Attachment 3)

11. Independent Oversight Team Report on Darlington Refurbishment COVID-19 Impacts to Unit 3 – August 2020

2) Refurbishment Construction Review Board – Reports to Management

Reports listed below are provided as Attachment 12 (confidential):

- RCRB Visit 03 November 2016 Final Report
- RCRB Visit 04 February 2017 Final Report
- RCRB Visit 05 May 2017 Final Report
- RCRB Visit 06 July 2017 Final Report
- RCRB Visit 07 October 2017 Final Report
- RCRB Visit 08 February 2018 Final Report
- RCRB Visit 09 June 2018 Final Report
- RCRB Visit 10 October 2018 Final Report
- RCRB Visit 11 March 2019 Final Report
- RCRB Visit 12 June 2019 Final Report
- RCRB Visit 13 October 2019 Final Report
- RCRB Visit 14 February 2020 Final Report

3) Refurbishment Construction Review Board – Reports to the Darlington Refurbishment Committee of the OPG Board of Directors

Reports listed below are provided as Attachment 13 (confidential):

- RCRB Visit 15 September 2020 Final Report
- RCRB Visit 16 November 2020 Final Report
- RCRB Visit 17 February 2021 Final Report

4) Internal Audit

Since EB-2016-0152, Internal Audit has performed 20 Audits that include DRP in scope.

The following table contains the list of the Internal Audit reports relating to DRP. All findings and associated management action plans relevant to the DRP are provided in Attachment 14 (confidential).

Chart 1 – Internal Audit Reports

Audit #	Audit Title
17-10	Darlington Nuclear Refurbishment Project Execution – Balance of Plant Audit
17-26	ES MSA Contract Management – Auditor General Follow-Up Audit
17-27	Darlington Nuclear Refurbishment – Program Oversight and Reporting Audit
17-28	Darlington Nuclear Refurbishment – Vendor Productivity
17-29	Darlington Nuclear Refurbishment Project – Retube and Feeder Replacement Audit
17-38	Darlington Nuclear Refurbishment (“DNR”) Quality Oversight Audit
18-24	Nuclear Laundry Services
18-26	DNR Return to Service – Unit 2
18-27	DNR Vendor Billings – Voucher Payments Audit
18-28	DNR Planning and Readiness – Unit 3
18-29	DNR Construction Switch Initiatives
18-30	DNR Turbine Generator Project – Unit 2 Audit
19-14	Contractor Safety Management
19-24	Nuclear Waste and Radioactive Material Transportation
19-27	Darlington Nuclear Refurbishment (“DNR”) – Claims and Dispute Management
19-28	DNR Unit 2 Asset in Service Audit
19-29	DNR Procurement Oversight – Unit 3
20-27	Darlington Nuclear Refurbishment Quality Oversight
20-28	Darlington Nuclear Refurbishment Unit 2 Cost Allocation
20-30	DNR Unit 3 Turbine Generator Audit

5) Nuclear Oversight

Since EB-2016-0152, Nuclear Oversight has performed 35 fleet-wide programmatic Audits and 11 Assessments that included DRP in scope. Of the 35 fleet-wide audits, 10 identified issues requiring corrective action within Refurbishment.

The following charts contain the list of Nuclear Oversight Audits and Assessments that included DRP in scope. All findings or insights and associated management actions relevant to the DRP are provided in Attachment 15.

Chart 2 – Nuclear Oversight Fleet-wide Programmatic Audits

Audit #	Audit Title	DRP-Related Findings?
NO-2017-001	Managed Systems	No
NO-2017-003	Nuclear Regulatory Affairs	No
NO-2017-009	Environmental Qualification	No
NO-2017-010	Nuclear Environmental Management and Compliance	Yes
NO-2017-012	Pressure Boundary	Yes
NO-2017-015	Engineering and Design Authority	No
NO-2017-022	Engineering Change Control and Design Management	Yes
NO-2018-001	Chemistry	No
NO-2018-004	Component and Equipment Surveillance	Yes
NO-2018-007	Nuclear Environmental Management	No
NO-2018-008	Radiation Protection Program	Yes
NO-2018-010	Software	No
NO-2018-014	Items & Services Management and Pressure Boundary Programs	No
NO-2018-015	Production Work Management	No
NO-2018-016	Nuclear Work Protection Program	No
NO-2018-018	Fire Protection	No
NO-2018-020	Conduct of Maintenance	Yes
NO-2018-023	Consolidated Nuclear Emergency Plan	No
NO-2019-001	Equipment Reliability	No
NO-2019-002	Performance Improvement Program	Yes
NO-2019-008	Pressure Boundary Program	No
NO-2019-009	Fuel	No
NO-2020-001	Design Management	Yes
NO-2020-003	Engineering Change Control	Yes
NO-2020-004	Major Components	No
NO-2020-005	Welding & Pressure Boundary	No
NO-2020-006	Project Management	No
NO-2020-007	Work Protection Program	No
NO-2020-008	Heavy Water Management	No
NO-2020-009	Nuclear Environmental Management	No
NO-2020-010	Conduct of Maintenance Program	No
NO-2020-013	Training Program	No
NO-2021-003	Fire Protection	Yes
NO-2021-009	Inspection & Maintenance Services	No
NO-2021-014	Environmental Qualification	No

Chart 3 – Nuclear Oversight Assessments

Assessment #	Assessment Title	DRP-Related Findings?
NO-2018-200	DNR System Available for Service Process, Nuclear Refurbishment Engineering	Yes
NO-2018-201	DNR Quality Management	Yes
NO-2018-310	Human Performance Assessment	No
NO-2019-201	DNR U2 Operations Procedures and Training Readiness for Hold Points following Modifications	Yes
NO-2019-202	Regulatory Hold Point 1 and Fuel Loading Readiness	Yes
NO-2019-203	DNR U2 Construction Management	No
NO-2019-205	DNR U2 RTS: Darlington Nuclear Refurbishment – Assessment of Change Management, Open Items, and Preparedness for PHT Fill (RCHP4)	Yes
NO-2019-206	Health and Safety Program	Yes
NO-2019-207	Readiness for Vault Restoration and Bulkhead Removal (RCHP3)	Yes
NO-2019-208	Readiness for Guaranteed Shutdown State Removal (RCHP5)	Yes
NO-2019-306	DNR Unit 2 Return to Service Document Quality Assessment	Yes
NO-2019-308	Human Performance	No

6) High Bridge Associates

In April 2020, High Bridge Associates, Inc., was engaged to perform a review of the OPG One Team approach for DNR. This report is provided as Attachment 16.

7) Post-Payment Audits

Post-payment audits are provided as Attachments as listed:

17. OPG BOP BWXT Contract Review
18. D2O Contract Audit: Payroll & Overtime Review
19. ES Fox Extended Services Master Services Agreement (this report has a confidentiality notice but OPG has confirmed it is non-confidential in its entirety)
20. Black & McDonald ES MSA

21. SG Engineer, Procure, Construct
22. TG Refurbishment Project (confidential)
23. Refurbishment Retube & Feeder Replacement Project (confidential)
24. Turbine Generator Engineering Services and Equipment Supply