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DEPARTMENT OF ECOLOGY

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June 19, 2018

JUN 21 2018

Ms. Amy Moon
Energy Facility Site Evaluation Council
P.O. Box 47250
Olympia, WA 98504-720

ENERGY FACILITY SITE
EVALUATION COUNCIL

**RE: Columbia Generating Station – NPDES Permit No. WA002515-1
Dehalogenation Chemical Feed Project Engineering Report**

Dear Ms. Moon:

Energy Northwest (EN) submitted an engineering report electronically to both EFSEC and Ecology on May 7, 2018. This report addresses a proposed improvement to the Columbia Generating Station's halogenation process. The proposed change modifies the existing batch halogenation process for the circulating and plant service water systems. Modifications include transitioning to a continuous halogenation/dehalogenation process to inhibit biological fouling of the facility's water systems and use of biodispersants and antifoaming agents for purposes of enhancing overall treatment efficiency. Ecology provides the following comments to EFSEC on the Columbia Generating Station engineering report per the procedures outlined in the 2018 EFSEC/Ecology MOA.

Ecology reviewed the engineering report against the requirements in WAC 173-240-130, Engineering Report requirements for industrial facilities. Prior to submission of the report, EN requested a waiver for the WAC 173-240-160 requirement for a professional engineer's seal on the engineering report as it involves an industrial wastewater facility. Ecology granted this waiver request via email on April 25, 2018.

The following comments were generated during Ecology's engineering report review:

1. Chemical storage tank spill containment measures solely relying on double wall tankage are inadequate as proposed. State law requires secondary containment to prevent spills and leaks of dangerous liquids from reaching the environment. Also, containment of any spills is a requirement in the current discharge permit. Please revise to include a provision for secondary containment that is large enough to contain ten percent of the free liquid in all containers or 100 percent of the volume of the largest container. Ecology requests EN investigate the addition of an overflow protection valve to provide tank overflow protection in addition to the level indicators shown on Figures A-2, A-3, and A-4.



2. Section 4.5 – Bypass Provisions – details two contingency actions to avoid permit exceedances in the event of a continuous TRH or pH monitor failure. Of the two alternatives, Ecology requests the implementation of the first alternative which would revert to the current halogenation procedure. The current permit's monitoring requirements support this alternative discharge procedure. Please revise the report to only include this method of alternative discharge. Also, please indicate whether automatic diversion to this alternative process is possible through valve automation based on exceedances recorded or total failure of the new continuous TRH or pH monitors. Actuated valving in this case is preferable to a manual diversion.
3. Current permit monitoring requirements need to be adjusted to reflect the change to the continuous halogenation/dehalogenation as two per/treatment (or batch). This current monitoring requirement needs to stay in the permit given the alternative discharge procedure covered in Section 4.5 of the report; however, a provision for allowance of the continuous monitoring devices needs to be included in the current permit. EN will be required to report the maximum daily concentration recorded on the continuous monitor for TRH with this change of operation. This can be done under a minor modification to the permit which requires no formal public notice as it is an increase in monitoring frequency. Please have EN formally request a minor modification in writing for this change in monitoring.
4. Additional visual alarms outside of the dehalogenation trailer should be included in the notification system.

Ecology appreciates the direct communication from EN during the scoping of the dehalogenation project and development of this engineering report. No major changes will be made to the Columbia Generating Station's existing permit. The active permit's existing discharge limits, submittal schedule, and other monitoring requirements remain unchanged. Please ensure Ecology receives a final copy of the O&M manual once received by EFSEC so that it can be added to the permit record.

Please have EN address these comments in the revision to their engineering report. If you have any questions, please contact me by phone or email: 360-407-3466 or ekey461@ecy.wa.gov.

Sincerely,



M. Eleanor Key, P.E.
Water Quality Program

Cc: Katie Hall, Ecology, Nuclear Waste Program
Sonia Bumpus, EFSEC, Siting and Compliance Manager