



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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April 25, 2019

Alicia Fuentes
Solvay Chemicals, Inc.
3500 Industrial Way
Longview, WA 98632

Re: Ecology Review – Permit Application Package: SWDP Applications, NPDES Application, Engineering Report, and SEPA Checklist

Dear Alicia Fuentes:

The Washington State Department of Ecology (Ecology) received the permit application package electronically on April 5, 2019 via Ecology's WQWebPortal. The application package included the following: two State Waste Discharge Permit (SWDP) applications, a National Pollutant Discharge Elimination System (NPDES) application, a State Environmental Protection Act (SEPA) checklist, and the *Solvay Chemicals, Inc. Wastewater Engineering Report* (Engineering Report). The hard copy of the application package was received by Ecology on April 8 and 9, 2019.

Solvay Chemicals, Inc. (Solvay) currently has coverage under SWDP No. ST0006070. Special Condition S8 of the permit requires Solvay to submit a renewal application by April 1, 2019. Special Condition S8 also requires Solvay to submit a new application at least 180 days prior to commencement of discharges resulting from planned changes at the facility, including process modifications. General Condition G5 of SWDP No. ST0006070 requires Solvay to submit an engineering report and detailed plans and specifications at least 180 days prior to starting construction or modifying any wastewater control facilities.

Ecology has completed a review of the permit application package and has determined that more information is necessary before Ecology can approve the Engineering Report, make a threshold determination for the SEPA checklist, and make a completeness determination on the permit applications. Ecology offers the following comments to be addressed for each specified submittal. The amended submittals must be submitted to Ecology by **July 1, 2019**.

SWDP Applications

The following comments apply to both SWDP applications that were submitted in the application package:



Section C. Plant Operational Characteristics

1. Number five in this section (pg. 4) requires the applicant to quantify seasonal variations in discharge flow rate, if flows are seasonally influenced. The submitted applications indicate that flow rates do not vary seasonally. However, the facility currently collects stormwater from process areas for treatment at the Nippon Dynawave Industrial Wastewater Treatment Plant. Stormwater contributions to the discharge would vary seasonally. The SWDP application for the discharge of process wastewater to Nippon Dynawave should be updated to reflect this.

If this practice will be continued in the future, the SWDP application for the discharge of process wastewater to Three Rivers Regional Wastewater Treatment Plant (TRRWA) should be updated to reflect this, also.

Section E. Wastewater Information

2. Number two (pg. 7) requires the applicant to describe the collection method for the samples analyzed and reported in the application. Solvay reported that flow and pH were continuously monitored. However, the sample collection method for other parameters, reported in attached documents, is not specified. The collection methods for the priority pollutants and the samples reported in the Engineering Report must be specified.
3. Number six (pg. 9) requires the applicant to specify which chemicals included on pages 10 and 11 are used as raw materials, produced at the facility, or are present in the wastewater. Solvay reported that naphthalene is used as a raw material. No other chemicals were specified. The following chemicals were above reportable quantities in the priority pollutant testing for the wastewater discharge and are included in the tables on pages 10 and 11: total phenols, total cyanide, antimony, arsenic, cadmium, chromium, copper, lead, nickel, and zinc. These parameters should be included in response to number six as being present in the wastewater.

Engineering Report

The Engineering Report, prepared by Gibbs & Olson (Project No. 0788.0189), discusses the proposed discharge of process wastewater to TRRWA and changes associated with the treatment process. The following comments address the submitted Engineering Report.

1. Washington Administrative Code (WAC) 173-240-160 requires all engineering reports and plans and specifications be prepared and stamped by a registered professional engineer. The Engineering Report must be resubmitted with the seal of the professional engineer that prepared the report.
2. WAC 173-240-130 lists the required information that must be included with the engineering report submittal. Ecology recognizes that some of the information specified in WAC 173-240-130 is not necessary for the proposed project. However, the following information was not included or fully addressed in the Engineering Report and must be addressed:

- a. Amount and kind of chemicals used in the treatment process, if any
 - i. The Engineering Report discusses the chemicals which are used for treatment. These include nitric acid and caustic soda, with the possibility of sulfuric acid. However, the amount of chemicals used is not specified in the Engineering Report.
- b. Basic design data and sizing calculations of the treatment units
 - i. Solvay is not planning to physically modify the treatment units. However, information on the sizing and capacity of the treatment units should be included in the Engineering Report.
Solvay is proposing to modify the treatment process to achieve a pH within a smaller range and to modify the discharge practices to have a continuous discharge rather than batch discharges.
- c. Description of the treatment process and operation, including a flow diagram
 - i. Information on the pH adjustment system is included in the Engineering Report. However, the flow diagram indicates that there is a settling tank and a CPI separator prior to pH adjustment. The settling tank and CPI separator are considered treatment processes and should be discussed in the Engineering Report.
- d. Provisions for bypass, if any
 - i. Solvay must include information on any plans to install a bypass of the receiving treatment plant (TRRWA). If there are no plans for bypass provisions, this should be stated in the Engineering Report.
- e. Physical provision for oil and hazardous material spill control or accidental discharge prevention or both
 - i. Information on containment structures, monitoring equipment, or other methods for preventing the discharge of oil and hazardous materials must be included in the Engineering Report.
- f. Discussion on the effects of the proposed industrial discharge on the use or disposal of municipal sludge
- g. Discussion of the method of final sludge disposal selected and any alternatives considered with reasons for rejection
 - i. Solvay has a settling tank prior to pH adjustment. Additionally, metals typically precipitate at higher pH and could result in solids in other treatment units.

The Engineering Report should discuss the removal and disposal of sludges from the onsite treatment units, if sludge removal is necessary.

h. Timetable for final design and construction

- i. The Engineering Report states that the project is anticipated to be constructed prior to the end of 2019; however, information on the timeline for final design or commencement of construction is not included.

i. Statement regarding compliance with the SEPA and National Environmental Protection Act (NEPA) requirements, if applicable

- i. Page 15 of the Engineering Report states, in part, "...SEPA compliance is not required for design and construction of these improvements per WAC 173-800-23."

Stating that SEPA compliance is not required is not an accurate statement. Compliance with the SEPA regulations is required. Additionally, the referenced WAC does not exist.

WAC 197-11-800 includes Categorical Exemptions for the SEPA review process. The threshold determination (i.e. SEPA checklist) and EIS requirements are not required for the installation or construction of utility related lines (such as sewer lines) which are 12-inches or less in diameter, as specified in WAC 197-11-800(23)(b). This exemption applies to the installation of the sewer line from Solvay to the City of Longview's sewer collection system. Solvay is complying with the SEPA requirements by applying a categorical exemption.

3. Pages 4 and 5 of the Engineering Report discuss the sampling results for ammonia, five-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), total inorganic carbon, total organic carbon (TOC), chemical oxygen demand (COD), and volatile suspended solids (VSS). Please include the lab reports and sampling information for each of the sampling events as an appendix to the Engineering Report.

NPDES Permit Application

1. WAC 173-240-110 requires that an engineering report and plans and specifications must be submitted to Ecology for approval prior to constructing or modifying industrial wastewater facilities. Industrial wastewater facility is defined in WAC 173-240-020(9) as, "...all structures, equipment, or processes required to collect, carry away, treat, reclaim or dispose of industrial wastewater."

Solvay must submit an engineering report and plans and specifications for the Reverse Osmosis (RO) system and the associated piping which will result in the new discharge to the Consolidated Diking Improvement District No. 1 (CDID) Ditch No. 5. The engineering report must include the following, at a minimum:

- a. Information specified in WAC 173-240-130, as applicable.
 - b. Required information for a Tier II review included in WAC 173-201A-320(4).
 - c. An analysis of all known, available, and reasonable methods of treatment (AKART), and how the proposed discharge will meet the AKART requirements.
2. The safety data sheets (SDS) for the cooling tower and RO treatment chemicals were included with the application package. There is no discussion in the permit application on how the treatment chemicals will be used in the system. Solvay must include additional information, either in a revised permit application or in the necessary engineering report, which describes the process for using the treatment chemicals and methods to ensure the RO reject water and the cooling tower blowdown water do not contain residual chemicals at toxic levels.

SEPA Checklist

1. The checklist doesn't adequately cover the entire scope of the project. The submitted checklist only includes information on the proposed discharge outfall to the CDID Ditch No. 5. The checklist should include information for the entire RO system project, which is resulting in a new discharge to the CDID Ditch No. 5.
2. Number 6 in the checklist discusses the proposed timing and schedule for the project. More information should be included on the planned construction timeline for the entire RO system project.
3. Section 3 of the checklist discusses water impacts. Subpart b of this section focuses on ground water impacts. The submitted checklist states that no groundwater will be withdrawn from a well for the project. Solvay proposes to have two groundwater wells for use in the RO system. This section must include information on the proposed groundwater wells.

If you have any questions regarding this letter, please contact me at (360) 407-6355 or kelsey.holbrook@ecy.wa.gov.

Sincerely,



Kelsey Holbrook
Industrial Section
Solid Waste Management Program

cc: Duke Spencer, EHS Specialist – Solvay Chemicals, Inc.
Rich Gushman, P.E. - Gibbs & Olson Engineering