

# Fact Sheet for NPDES Permit WA0052060

## Milne Fruit Products

July 1, 2021

### Purpose of this fact sheet

This fact sheet explains and documents the decisions the Department of Ecology (Ecology) made in drafting the proposed National Pollutant Discharge Elimination System (NPDES) permit for Milne Fruit Products (Milne).

This fact sheet complies with Washington Administrative Code, Title 173, Chapter 220, Section 060 (WAC 173-220-060), which requires Ecology to prepare a draft permit and accompanying fact sheet for public evaluation before issuing an NPDES permit.

Ecology makes the draft permit and fact sheet available for public review and comment at least thirty (30) days before issuing the final permit. Copies of the fact sheet and draft permit for Milne, NPDES permit WA0052060, are available for public review and comment from May 19, 2021 until June 21, 2021. For more details on preparing and filing comments about these documents, please see **Appendix A - Public Involvement Information**.

Milne reviewed the draft permit and fact sheet for factual accuracy. Ecology corrected any errors or omissions regarding the facility's location, history, discharges, or receiving water prior to publishing this draft fact sheet for public notice.

After the public comment period closes, Ecology will summarize substantive comments and provide responses to them. Ecology will include the summary and responses to comments in this fact sheet as **Appendix D - Response to Comments**, and publish it when issuing the final NPDES permit. Ecology generally will not revise the rest of the fact sheet. The full document will become part of the legal history contained in the facility's permit file.

### Summary

Milne processes fruit into fruit juice and fruit juice concentrates. The plant operates year round, but during the harvest period, operational hours extend to 24 hours a day, 7 days per week. Fruit crops processed at the Milne facility include apple, blackberry, blueberry, grape, cherry, pear, cranberry and strawberry. There are two regulated discharges (Outfall 001 and Outfall 002) from the facility.

Outfall 001 discharges non-contact cooling water to surface water from a small condenser, which is only used when both apples and grapes are being processed at the same time, usually September through November. This discharge is to joint drain 33.4 (JD 33.4) operated by the Roza-Sunnyside Board of Joint Control (RSBOJC). JD 33.4 flows south from Sunnyside to Sulphur Creek Wasteway, a tributary of the Yakima

River. In Outfall 001 flow, pH, and temperature are monitored. The Outfall 001 discharge forms the basis of the draft permit's NPDES regulatory requirements.

Outfall 002 receives process and cleaning wastewater. The wastewater goes to a sump where the Port of Sunnyside Industrial Wastewater Treatment Facility (IWWTF) samples the wastewater for flow rate, quality, and quantity prior to discharge. This Outfall is regulated under a contract between Milne and the Port of Sunnyside. Flow, BOD, COD, TSS, TKN, chloride, pH, total phosphorus, TDS and fixed dissolved solids are monitored in Outfall 002. The Outfall 002 discharge forms the basis of the draft permit's state waste discharge pretreatment regulatory requirements.

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## I. Introduction

The Federal Clean Water Act (FCWA, 1972, and later amendments in 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES), administered by the federal Environmental Protection Agency (EPA). The EPA authorized the state of Washington to manage the NPDES permit program in our state. Our state legislature accepted the delegation and assigned the power and duty for conducting NPDES permitting and enforcement to Ecology. The Legislature defined Ecology's authority and obligations for the wastewater discharge permit program in the Revised Code of Washington, Title 90, Chapter 48 (RCW 90.48).

The following regulations apply to industrial NPDES permits:

- Water quality criteria for ground waters (WAC 173-200)
- Water quality criteria for surface waters (WAC 173-201A)
- Whole effluent toxicity testing and limits (WAC 173-205)
- Sediment management standards (WAC 173-204)
- Procedures Ecology follows for issuing NPDES permits (WAC 173-220)
- Submission of plans and reports for construction of wastewater facilities (WAC 173-240)

These rules require any industrial facility owner/operator to obtain an NPDES permit before discharging wastewater to state waters. They also help define the basis for limits on each discharge and for performance requirements imposed by the permit.

Under the NPDES permit program and in response to a complete and accepted permit application, Ecology must prepare a draft permit and accompanying fact sheet, and make them available for public review before final issuance. Ecology must also publish an announcement (public notice) telling people where they can read the draft permit, and where to send their comments, during a period of thirty days (WAC 173-220-050). (See **Appendix A-Public Involvement Information** for more detail about the public notice and comment procedures). After the public comment period ends, Ecology may make changes to the draft NPDES permit in response to comment(s). Ecology will summarize the responses to comments and any changes to the permit in **Appendix D**.

## II. Background Information

**Table 1 General Facility Information**

<b>Facility Information</b>	
Applicant	Milne Fruit Products
Facility Name and Address	Milne Fruit Products 108 East Blaine Avenue Sunnyside, WA 98944
Contact at Facility	Name: David L. Luther Telephone #: 509 832 8499
Responsible Official	Name: David L. Luther Title: VP Operations Telephone #: 509 832 8499
Industry Type	Fruit Processor
Type of Treatment	Outfall 001-None  Outfall 002-oil/water separator, rotating barrel screen, discharge to IWWTF Port of Sunnyside
SIC Codes	2037
NAIC Codes	311411
Facility Location (NAD83/WGS84 reference datum)	Latitude: 46.327244 Longitude: -120.019179
Discharge Waterbody Name and Location	Joint Drain 33.4 (JD 33.4) Irrigation return drain that discharges to Sulphur Creek Wasteway during Sep-Nov Latitude: 46.32707 Longitude: -120.02032
Discharge to Port of Sunnyside Industrial Wastewater Treatment Facility	Latitude: 46.327011 Longitude: -120.019998
<b>Permit Status</b>	
Issuance Date of Previous Permit	February 16, 2012
Application for Permit Renewal Submittal Date	December 9, 2016
Date of Ecology Acceptance of Application	December 14, 2016
<b>Inspection Status</b>	
Date of Last Non-sampling Inspection Date	June 28, 2017



Figure 1 Facility Location Map

## **A. Facility description**

### *History*

Milne Fruit Products, formerly Valley Processing Plant 1, is located in Sunnyside, Washington, produces juice, puree and essences from a variety of fruits, including apple, cherry, pear, blackberry, blueberry, boysenberry, grape, cranberry, raspberry, and strawberry.

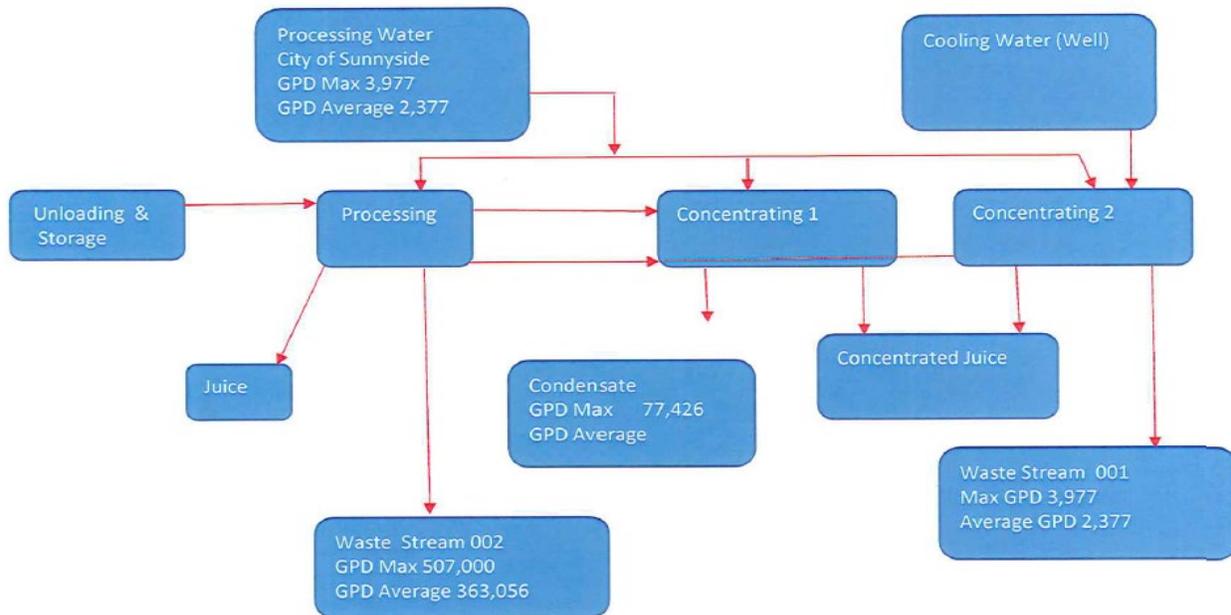
The product line expanded over time. The bulk of the facilities production is fruit juice concentrates with production of up to 1 million gallons per year of fruit juice and 2.5 million gallons per year of fruit juice concentrate.

### *Industrial Processes*

The federal Categorical Pretreatment Standards 40 CFR Part 407 Subpart A Apple Juice Subcategory, Subpart B Apple Products Subcategory, and Subpart F Canned and Preserved Fruits Subcategory are applicable. This permit accounts for the relevant federal standards discharge limits.

Raw materials used in the production process include 75,000 tons of fruit, 4,000 gallons of enzymes, 2,000 tons of diatomaceous earth, 5 tons of fining agents (bentonite, activated charcoal) and 1,000 tons of press aids (sterilized wood chips and rice hulls). Diatomaceous earth filters the juice. Spent pomace and diatomaceous earth are removed from the facility and used as a cattle feed additive. Addition of fining agents improves juice clarity, color, odor, flavor and stability. Press aids increase yield of juice. Milne stores and uses caustic, bleach, water treatment chemicals, oils, grease, and paint.

Plant improvements have included recycling of condensed steam back to the boilers, installation of stainless steel drains throughout the plant, updated sump pumps for improved solids handling, and secondary containment for stored materials.



**Figure 2 Process Flow Wastewater Treatment processes & Discharge outfall**

The facility uses both City of Sunnyside water and groundwater from a supply well. Water use averages 2,377 gallons per day with maximum usage of 3,977 gallons per day. The maximum daily wastewater discharge flow is 507,000 gallons per day and the maximum average monthly wastewater discharge flow is 363,056 gallons per day.

There are two regulated discharges (Outfall 001, Outfall 002) from the facility.

Outfall 001 receives an intermittent discharge dependent on production volume. This discharge occurs when both apple and cherries are being processed. During production, a single pass of artesian well water cools the juice, then discharges. This non-contact cooling water (Outfall 001) flows to an agricultural drain which discharges approximately 800 feet south to Joint Drain 33.4 (JD 33.4) which subsequently discharges into Sulphur Creek Wasteway, a tributary to the Yakima River.

Outfall 002 receives process and cleaning wastewater. Wastewater from Plant 1 is treated by an oil/water separator. Solids are removed with a rotating barrel screen prior to discharge to the Port of Sunnyside. The wastewater is discharged to a sump with a flow meter and sampling station maintained by the POS-IWWTF.

*Solid wastes*

The wastes generated by the juice making process include diatomaceous earth, apple, berry, grape, cranberry and pear pomace (solid remains of fruit after pressing for juice) and cherry pits. Additional solid wastes generated at the facility are cardboard, metal, and used oil. Milne submitted a Solid Waste Control Plan (SWCP) in January 2017. The plan detailed outfall locations and disposal routes, including vendors, for wastes generated. See table below for a summary of information presented in the plan.

**Table 2 Solid Waste**

Waste	Quantity	Disposal
Apple Pomace	~5718 tons/year	Animal Feed
Berry Pomace	~632 tons/year	Animal Feed
Grape Pomace	~1439 tons/year	Animal Feed
Cranberry Pomace	~58 tons/year	Animal Feed
Pear Pomace	~16 tons/year	Animal Feed
Diatomaceous Earth	~4621 tons/year	Composting
Press Aids	NA	Composting
Metal	~ 4 tons/year	Sold to a local vendor
Cardboard	~ 169 tons/year	Sold to a local vendor
Used Oil	~ 4 tons/year	Collected by a local Vendor
Garbage	NA	Hauled to landfill in Zillah, WA

**B. Description of the receiving water**

Outfall 001 discharges to JD 33.4 an agricultural return drain, a tributary to Sulphur Creek Wasteway. Other nearby point source outfalls include industrial stormwater and irrigation return flow.

Significant nearby non-point sources of pollutants include agriculture and municipal stormwater. JD 33.4 is not used as a drinking water source. Section III E of this fact sheet describes any receiving waterbody impairments.

The ambient background data used for this permit includes the following from 2012, study performed as a result of the Bee Jay Scales consent decree (Facility/Site ID #504, Cleanup Site ID # 3641):

**Table 3 Ambient Background Data for JD 33.4, Collected on June 5, 2012**

Parameter	Value Used
Nitrite	0.015 mg/L
Nitrate	3.1 mg/L
Ammonia	0.12 mg/L
Total Kjeldahl Nitrogen	11.8 mg/L
Chloride	17.5 mg/L
Ortho-Phosphorus	0.11 mg/L
Total Phosphorus	0.28 mg/L

### C. Wastewater characterization

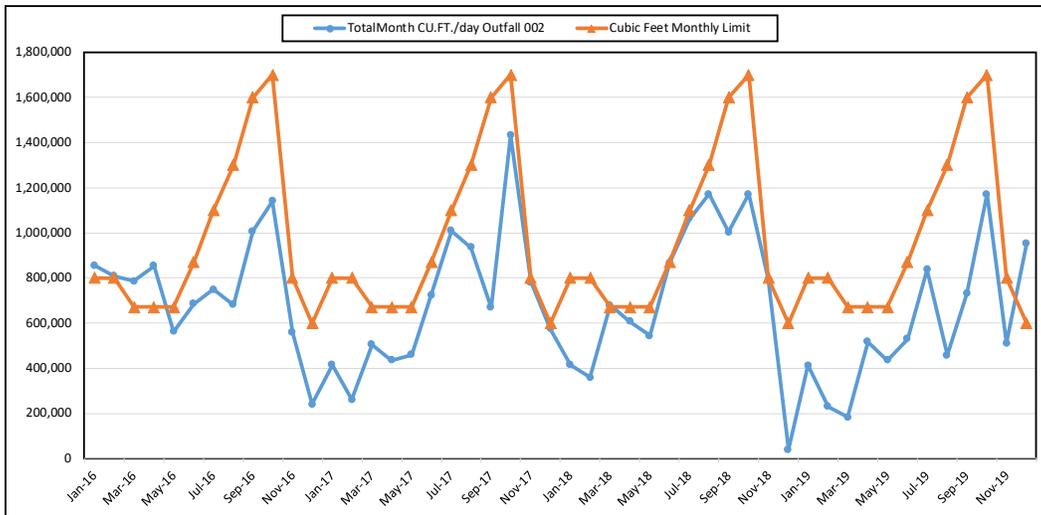
Milne reported the concentration of pollutants in the discharge in the permit application and in discharge monitoring reports. The tabulated data represents the quality of the wastewater effluent discharged from 01/2016-01/2019. The facility did not discharge to Outfall 001 (JD 33.4) during this period. The wastewater effluent is characterized as follows:

**Table 4 Outfall 001; Wastewater Characterization January 2016 – January 2019**

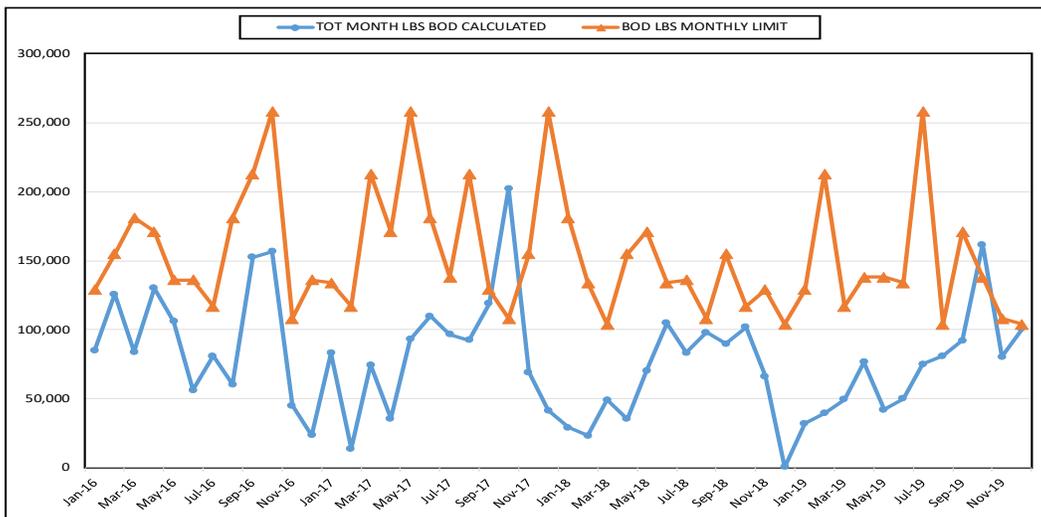
Parameter	Units	Average Value	Maximum Value
Flow	Cubic feet	NA	NA
pH	Standard Units	NA	NA
Temperature	°C	NA	NA

**Table 5 Outfall 002 – Wastewater Characterization January 2016 – December 2019**

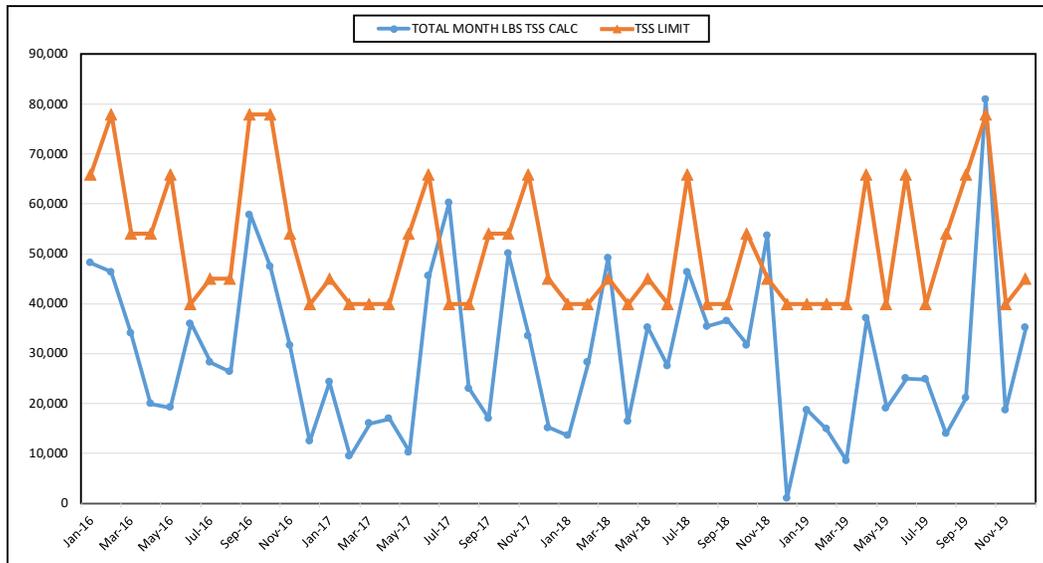
<b>Parameter</b>	<b>Units</b>	<b>Average Value</b>	<b>Maximum Value</b>
Flow	ft <sup>3</sup> /month	683,211	1,432,398
Flow	Gallons / month	5,090,692	10,715,080
BOD <sub>5</sub>	mg/L	1,865	4,362
	lbs./month	78,550	202,230
Total Suspended Solids (TSS)	mg/L	708	7,370
	lbs./month	29,646	81,010
Chemical Oxygen Demand (COD)	mg/L	3,802	34,295
	lbs./month	163,699	1,700,467
Total Kjeldahl Nitrogen (TKN)	mg/L	10.5	26.7
	lbs./month	453	1,299
Chloride	mg/L	38	85
	lbs./month	1,547	3,983
Total Phosphorus	mg/L	4.7	17.4
	lbs./month	211	774
<b>Parameter</b>	<b>Units</b>	<b>Minimum Value</b>	<b>Maximum Value</b>
pH	standard units	6.9	10.9



**Figure 3 Total cubic feet/month wastewater discharged - Port Outfall 002 vs limit**



**Figure 4 Total lbs./month BOD discharged to Port's Outfall 002 vs. permit limits**



**Figure 5 Total lbs. per month TSS discharged to Port's Outfall 002**

**D. Summary of compliance with previous permit Issued**

The previous permit placed effluent limits on flow and pH for Outfall 001, and flow, pH, BOD, TSS, TKN, and Total Phosphorus for Outfall 002.

MILNE has not consistently complied with the effluent limits and permit conditions throughout the duration of the permit issued on February 16, 2012. Ecology assessed compliance based on its review of the facility's discharge monitoring reports (DMRs) and on inspections. MILNE renegotiated its Industrial Wastewater User Contract with the Port of Sunnyside in 2016. The new contract has increased MILNE's discharge limits and improved MILNE's compliance record.

The following table summarizes the violations and permit triggers that occurred 01/01/2016-01/01/2019. Permit triggers are not violations but rather when triggered require the permit holder to take an action defined in the permit.

**Table 6 Violations/Permit Triggers**

Begin Date	Parameter	Statistical Base	Units	Value	Limit Max	Violation
*	*	*	*	*	*	Failure to submit required report (non-DMR, non-pretreatment)
*	*	*	*	*	*	Failure to submit required report (non-DMR, non-pretreatment)
2/1/2016	BOD5	Monthly Total	lbs./month	125,896	40,000	Numeric effluent violation
2/1/2016	Flow	Monthly Total	ft <sup>3</sup> /month	808,040	800,000	Numeric effluent violation
3/1/2016	*	*	*	*	*	Analysis not Conducted
3/1/2016	BOD5	Monthly Total	lbs./month	83,956	57,000	Numeric effluent violation
4/1/2016	BOD5	Monthly Total	lbs./month	130,365	50,000	Numeric effluent violation
5/1/2016	BOD5	Monthly Total	lbs./month	105,950	50,000	Numeric effluent violation
7/1/2016	BOD5	Monthly Total	lbs./month	81,130	60,000	Numeric effluent violation
9/1/2016	BOD5	Monthly Total	lbs./month	152,677	125,000	Numeric effluent violation
8/1/2017	*	*	*	*	*	Late Submittal of DMRs
9/1/2017	*	*	*	*	*	Late Submittal of DMRs
6/1/2018	*	*	*	*	*	Late Submittal of DMRs
7/1/2018	*	*	*	*	*	Late Submittal of DMRs
8/1/2018	*	*	*	*	*	Late Submittal of DMRs

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Begin Date	Parameter	Statistical Base	Units	Value	Limit Max	Violation
8/1/2018	*	*	*	*	*	Late Submittal of DMRs
8/1/2018	*	*	*	*	*	Late Submittal of DMRs
8/1/2018	*	*	*	*	*	Late Submittal of DMRs
8/1/2018	Flow	*	ft <sup>3</sup> /s	*	*	Frequency of Sampling Violation
8/1/2018	Temperature	*	Degrees F	*	*	Frequency of Sampling Violation
8/1/2018	TSS	*	mg/L	*	*	Frequency of Sampling Violation
8/1/2018	TSS	*	mg/L	*	*	Frequency of Sampling Violation
8/1/2018	TSS	*	mg/L	*	*	Frequency of Sampling Violation
8/1/2018	TSS	*	mg/L	*	*	Frequency of Sampling Violation
8/1/2018	TSS	*	mg/L	*	*	Frequency of Sampling Violation
8/1/2018	TSS	*	mg/L	*	*	Frequency of Sampling Violation
8/1/2018	TSS	*	mg/L	*	*	Frequency of Sampling Violation
8/1/2018	TSS	*	mg/L	*	*	Frequency of Sampling Violation
8/1/2018	TSS	*	mg/L	*	*	Frequency of Sampling Violation
10/1/2018	Flow	*	ft <sup>3</sup> /s	*	*	Frequency of Sampling Violation
10/1/2018	pH	*	Standard Units	*	*	Frequency of Sampling Violation
10/1/2018	Temperature	*	Degrees F	*	*	Frequency of Sampling Violation
10/1/2018	Flow	Monthly Total	ft <sup>3</sup> /month	9,359,731	2,400,000	Numeric effluent violation
10/1/2018	Flow	Monthly Total	ft <sup>3</sup> /month	9,359,731	2,400,000	Numeric effluent violation

Begin Date	Parameter	Statistical Base	Units	Value	Limit Max	Violation
10/1/2018	Flow	Monthly Total	ft <sup>3</sup> /month	9,359,731	2,400,000	Numeric effluent violation
11/1/2018	Flow	*	ft <sup>3</sup> /s	*	*	Frequency of Sampling Violation
11/1/2018	pH	*	Standard Units	*	*	Frequency of Sampling Violation
11/1/2018	Temperature	*	Degrees F	*	*	Frequency of Sampling Violation
11/1/2018	Flow	*	ft <sup>3</sup> /month	*	*	Frequency of Sampling Violation
11/1/2018	Flow	*	ft <sup>3</sup> /month	*	*	Frequency of Sampling Violation

The following table summarizes compliance with report submittal requirements 01/01/2016-01/01/2019.

**Table 7 Submittals**

Name	Status	Due	Received
Solid Waste Control Plan	Received	03/31/2016	01/12/2017
Application for Permit Renewal	Approved	03/31/2016	01/12/2017
Application for Permit Renewal	Received	03/31/2016	01/12/2017
Application for Permit Renewal	Not Accepted	03/31/2016	01/12/2017

**E. State environmental policy act (SEPA) compliance**

State law exempts the issuance, reissuance or modification of any wastewater discharge permit from the SEPA process as long as the permit contains conditions that are no less stringent than federal and state rules and regulations (RCW 43.21C.0383). The exemption applies only to existing discharges, not to new discharges.

**III. Proposed Permit Limits**

Federal and state regulations require that effluent limits in an NPDES permit must be either technology- or water quality-based.

Technology-based limits are based upon the treatment methods available to treat specific pollutants. Technology-based limits are set by the EPA and published as a regulation, or Ecology develops the limit on a case-by-case basis (40 CFR 125.3, and WAC 173-220).

Water quality-based limits are calculated so that the effluent will comply with the Surface Water Quality Standards (WAC 173-201A), Ground Water Standards (WAC 173-200), Sediment Quality Standards (WAC 173-204), or the National Toxics Rule (40 CFR 131.36).

Ecology must apply the most stringent of these limits to each parameter of concern. These limits are described below.

The limits in this permit reflect information received in the application and from supporting reports (engineering, hydrogeology, etc.). Ecology evaluated the permit application and determined the limits needed to comply with the rules adopted by the state of Washington. Ecology does not develop effluent limits for all reported pollutants. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation.

Ecology does not usually develop limits for pollutants not reported in the permit application but may be present in the discharge. The permit does not authorize discharge of the non-reported pollutants. During the five-year permit term, the facility's effluent discharge conditions may change from those conditions reported in the permit application. The facility must notify Ecology if significant changes occur in any constituent [40 CFR 122.42(a)]. Until Ecology modifies the permit to reflect additional discharge of pollutants, a permitted facility could be violating its permit.

#### **A. Design criteria**

According to WAC 173-220-150 (1)(g), neither flows nor waste loadings may exceed approved design criteria, however, Ecology does not have an engineering report that specifies the design criteria for the wastewater treatment system at this facility. MILNE removes solids prior to discharge to the Port of Sunnyside, the non-contact cooling water discharge to JD 33.4 is water from the City of Sunnyside or well water.

#### **B. Technology-based effluent limits**

Ecology must ensure that facilities provide all known, available, and reasonable methods of prevention, control, and treatment (AKART) when it issues a permit. 40

CFR Part 407, Subparts A, B and F are applicable for the MILNE facility. There are no effluent limits for these Subparts that apply.

### **C. Surface water quality-based effluent limits**

The Washington State surface water quality standards (WAC 173-201A) are designed to protect existing water quality and preserve the beneficial uses of Washington's surface waters. Waste discharge permits must include conditions that ensure the discharge will meet the surface water quality standards (WAC 173-201A-510). Water quality-based effluent limits may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load study (TMDL).

#### *Numerical criteria for the protection of aquatic life and recreation*

Numerical water quality criteria are listed in the water quality standards for surface waters (WAC 173-201A). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. Ecology uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

#### *Numerical criteria for the protection of human health*

In 1992, U.S. EPA published 91 numeric water quality criteria for the protection of human health that are applicable to dischargers in Washington State in its National Toxics Rule 40 CFR (EPA, 1992). Ecology submitted a standards revision for 192 new human health criteria for 97 pollutants to EPA on August 1, 2016. In accordance with requirements of CWA 303(c)(2)(B), EPA finalized 143 new and revised Washington specific human health criteria for priority pollutants, to apply to waters under Washington's jurisdiction. EPA approved 45 human health criteria as submitted by Washington. The EPA took no action on Ecology submitted criteria for arsenic, dioxin, and thallium. The existing criteria for these three pollutants as adopted in the National Toxics Rule (40 CFR 131.36) remain in effect.

These newly adopted criteria, located in WAC 173-201A-240, are designed to protect humans from exposure to pollutants linked to cancer and other diseases, based on consuming fish and shellfish and drinking contaminated surface waters. The water quality standards also include radionuclide criteria to protect humans from the effects of radioactive substances.

*Narrative criteria*

Narrative water quality criteria (e.g., WAC 173-201A-240(1); 2006) limit the toxic, radioactive, or other deleterious material concentrations that the facility may discharge to levels below those which have the potential to:

- Adversely affect designated water uses.
- Cause acute or chronic toxicity to biota.
- Impair aesthetic values.
- Adversely affect human health.

Narrative criteria protect the specific designated uses of all fresh waters (WAC 173-201A-200, 2006) and of all marine waters (WAC 173-201A-210, 2006) in the state of Washington.

*Antidegradation*

**Description**--The purpose of Washington's Antidegradation Policy (WAC 173-201A-300-330; 2006) is to:

- Restore and maintain the highest possible quality of the surface waters of Washington.
- Describe situations under which water quality may be lowered from its current condition.
- Apply to human activities that are likely to have an impact on the water quality of surface water.
- Ensure that all human activities likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART).
- Apply three tiers of protection (described below) for surface waters of the state.

Tier I ensures existing and designated uses are maintained and protected and applies to all waters and all sources of pollutions. Tier II ensures that waters of a higher quality than the criteria assigned are not degraded unless such lowering of water quality is necessary and in the overriding public interest. Tier II applies only to a specific list of polluting activities. Tier III prevents the degradation of waters formally listed as "outstanding resource waters," and applies to all sources of pollution.

A facility must prepare a Tier II analysis when all three of the following conditions are met:

- The facility is planning a new or expanded action.
- Ecology regulates or authorizes the action.
- The action has the potential to cause measurable degradation to existing water quality at the edge of a chronic mixing zone.

**Facility Specific Requirements**--This facility must meet Tier I requirements.

- Dischargers must maintain and protect existing and designated uses. Ecology must not allow any degradation that will interfere with, or become injurious to, existing or designated uses, except as provided for in WAC 173-201A.

Ecology's analysis described in this section of the fact sheet demonstrates that the proposed permit conditions will protect existing and designated uses of the receiving water.

#### *Mixing zones*

A mixing zone is the defined area in the receiving water surrounding the discharge port(s), where wastewater mixes with receiving water. Within mixing zones the pollutant concentrations may exceed water quality numeric standards, so long as the discharge doesn't interfere with designated uses of the receiving water body (for example, recreation, water supply, and aquatic life and wildlife habitat, etc.) The pollutant concentrations outside of the mixing zones must meet water quality numeric standards.

State and federal rules allow mixing zones because the concentrations and effects of most pollutants diminish rapidly after discharge, due to dilution. Ecology defines mixing zone sizes to limit the amount of time any exposure to the end-of-pipe discharge could harm water quality, plants, or fish.

The state's water quality standards allow Ecology to authorize mixing zones for the facility's permitted wastewater discharges only if those discharges already receive all known, available, and reasonable methods of prevention, control, and treatment (AKART). Mixing zones typically require compliance with water quality criteria within a specified distance from the point of discharge and must not use more than 25% of the available width of the water body for dilution [WAC 173-201A-400 (7)(a)(ii-iii)].

Ecology uses modeling to estimate the amount of mixing within the mixing zone. Through modeling Ecology determines the potential for violating the water quality standards at the edge of the mixing zone and derives any necessary effluent limits. Steady-state models are the most frequently used tools for conducting mixing zone analyses. Ecology chooses values for each effluent and for receiving water

variables that correspond to the time period when the most critical condition is likely to occur (see Ecology's *Permit Writer's Manual*). Each critical condition parameter, by itself, has a low probability of occurrence and the resulting dilution factor is conservative. The term "reasonable worst-case" applies to these values.

The mixing zone analysis produces a numerical value called a dilution factor (DF). A dilution factor represents the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. For example, a dilution factor of 4 means the effluent is 25% and the receiving water is 75% of the total volume of water at the boundary of the mixing zone. Ecology uses dilution factors with the water quality criteria to calculate reasonable potentials and effluent limits. Water quality standards include both aquatic life-based criteria and human health-based criteria. The former are applied at both the acute and chronic mixing zone boundaries; the latter are applied only at the chronic boundary. The concentration of pollutants at the boundaries of any of these mixing zones may not exceed the numerical criteria for that zone.

Each aquatic life *acute* criterion is based on the assumption that organisms are not exposed to that concentration for more than one hour and more often than one exposure in three years. Each aquatic life *chronic* criterion is based on the assumption that organisms are not exposed to that concentration for more than four consecutive days and more often than once in three years.

The two types of human health-based water quality criteria distinguish between those pollutants linked to non-cancer effects (non-carcinogenic) and those linked to cancer effects (carcinogenic). The human health-based water quality criteria incorporate several exposure and risk assumptions. These assumptions include:

- A 70-year lifetime of daily exposures.
- An ingestion rate for fish or shellfish measured in kg/day.
- An ingestion rate of two and four tenths (2.4) liters/day for drinking water (increased from two liters/day in the 2016 Water Quality Standards update).
- A one-in-one-million cancer risk for carcinogenic chemicals.

This permit does not authorize a mixing zone. The Permittee may submit a Mixing Zone Study, for Ecology's consideration, to evaluate whether or not a mixing zone is warranted for the discharge. If considering conducting and submitting a study the Permittee should discuss the applicable requirements with Ecology.

#### D. Designated uses and surface water quality criteria

Applicable designated uses and surface water quality criteria are defined in WAC 173-201A. In addition, the U.S. EPA set human health criteria for toxic pollutants (EPA 1992). The table included below summarizes the criteria applicable to this facility's discharge.

- Aquatic Life Uses are designated based on the presence of, or the intent to provide protection for the key uses. All indigenous fish and non-fish aquatic species must be protected in waters of the state in addition to the key species. The Aquatic Life Uses for this receiving water are identified below.

##### Freshwater Aquatic Life Uses and Associated Criteria

Salmonid Spawning, Rearing, and Migration	
Temperature Criteria – Highest 7-DAD MAX	17.5°C (63.5°F)
Dissolved Oxygen Criteria – Lowest 1-Day Minimum	8.0 mg/L
Turbidity Criteria	<ul style="list-style-type: none"> <li>• 5 NTU over background when the background is 50 NTU or less; or</li> <li>• A 10 percent increase in turbidity when the background turbidity is more than 50 NTU.</li> </ul>
Total Dissolved Gas Criteria	Total dissolved gas must not exceed 110 percent of saturation at any point of sample collection.
pH Criteria	The pH must measure within the range of 6.5 to 8.5 with a human-caused variation within the above range of less than 0.5 units.

- The *recreational uses* for this receiving water are identified below.

##### Recreational Uses and Associated Criteria

Recreational Use	Criteria
Primary Contact Recreation	Fecal coliform organism levels must not exceed a geometric mean value of 100 colonies /100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained for calculating the geometric mean value exceeding 200 colonies /100 mL.

- The water supply uses are domestic, agricultural, industrial, and stock watering.
- The miscellaneous freshwater uses are wildlife habitat, harvesting, commerce and navigation, boating, and aesthetics.

### **E. Water quality impairments**

Ecology has not documented any water quality impairments in the receiving water in the vicinity of the outfall.

### **F. Evaluation of surface water quality-based effluent limits for narrative criteria**

Ecology must consider the narrative criteria described in WAC 173-201A-160 when it determines permit limits and conditions. Narrative water quality criteria limit the toxic, radioactive, or other deleterious material concentrations that the facility may discharge which have the potential to adversely affect designated uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health.

Ecology considers narrative criteria when it evaluates the characteristics of the wastewater and when it implements all known, available, and reasonable methods of treatment and prevention (AKART) as described above in the technology-based limits section. When Ecology determines if a facility is meeting AKART it considers the pollutants in the wastewater and the adequacy of the treatment to prevent the violation of narrative criteria.

In addition, Ecology considers the toxicity of the wastewater discharge by requiring whole effluent toxicity (WET) testing when there is a reasonable potential for the discharge to contain toxics. Ecology's analysis of the need for WET testing for this discharge is described later in the fact sheet.

### **G. Evaluation of surface water quality-based effluent limits for numeric criteria**

Ecology has not authorized a mixing zone in the permit.

**pH-** Ecology predicts no violation of the pH criteria under critical conditions. Therefore, the proposed permit includes technology-based effluent limits for pH. Because the facility has demonstrated it can meet the water quality standards in the discharge, the proposed permit includes the water quality-based effluent limits for pH of a pH range of 4.0 to 11.0.

**Fecal Coliform-**The discharge is non-contact cooling water. Ecology expects no fecal coliform in the discharge.

**Turbidity-**Ecology expects no violations of turbidity in the discharge.

**Toxic Pollutants**-Federal regulations (40 CFR 122.44) require Ecology to place limits in NPDES permits on toxic chemicals in an effluent whenever there is a reasonable potential for those chemicals to exceed the surface water quality criteria. Ecology does not exempt facilities with technology-based effluent limits from meeting the surface water quality standards. Based upon the information in the application and the known operational characteristics of the facility Ecology expects no toxic pollutants in the discharge.

**Temperature**-The state temperature standards (WAC 173-201A-200-210 and 600-612) include multiple elements:

- Annual summer maximum threshold criteria (June 15 to September 15)
- Supplemental spawning and rearing season criteria (September 15 to June 15)
- Incremental warming restrictions
- Protections against acute effects

Ecology evaluates each criterion independently to determine reasonable potential and derive permit limits.

- Annual summer maximum and supplementary spawning/rearing criteria

Each water body has an annual maximum temperature criterion [WAC 173-201A-200(1)(c), 210(1)(c), and Table 602]. These threshold criteria (e.g., 12, 16, 17.5, 20°C) protect specific categories of aquatic life by controlling the effect of human actions on summer temperatures.

Some waters have an additional threshold criterion to protect the spawning and incubation of salmonids (9°C for char and 13°C for salmon and trout) [WAC 173-201A-602, Table 602].

These criteria apply during specific date-windows.

The threshold criteria apply at the edge of the chronic mixing zone. Criteria for most fresh waters are expressed as the highest 7-Day average of daily maximum temperature (7-DADMax). The 7-DADMax temperature is the arithmetic average of seven consecutive measures of daily maximum temperatures. Criteria for marine waters and some fresh waters are expressed as the highest 1-Day annual maximum temperature (1-DMax).

- Incremental warming criteria

The water quality standards limit the amount of warming human sources can cause under specific situations [WAC 173-201A-200(1)(c)(i)-(ii), 210(1)(c)(i)-(ii)]. The incremental warming criteria apply at the edge of the chronic mixing zone.

At locations and times when background temperatures are cooler than the assigned threshold criterion, point sources are permitted to warm the water by only a defined increment. These increments are permitted only to the extent doing so does not cause temperatures to exceed either the annual maximum or supplemental spawning criteria.

At locations and times when a threshold criterion is being exceeded due to natural conditions, all human sources, considered cumulatively, must not warm the water more than 0.3°C above the naturally warm condition.

When Ecology has not yet completed a TMDL, our policy allows each point source to warm water at the edge of the chronic mixing zone by 0.3°C. This is true regardless of the background temperature and even if doing so would cause the temperature at the edge of a standard mixing zone to exceed the numeric threshold criteria. Allowing a 0.3°C warming for each point source is reasonable and protective where the dilution factor is based on 25% or less of the critical flow. This is because the fully mixed effect on temperature will only be a fraction of the 0.3°C cumulative allowance (0.075°C or less) for all human sources combined.

- Protections for temperature acute effects

Instantaneous lethality to passing fish: The upper 99<sup>th</sup> percentile daily maximum effluent temperature must not exceed 33°C, unless a dilution analysis indicates ambient temperatures will not exceed 33°C two seconds after discharge.

General lethality and migration blockage: Measurable (0.3°C) increases in temperature at the edge of a chronic mixing zone are not allowed when the receiving water temperature exceeds either a 1DMax of 23°C or a 7DADMax of 22°C.

Lethality to incubating fish: Human actions must not cause a measurable (0.3°C) warming above 17.5°C at locations where eggs are incubating.

#### *Reasonable Potential Analysis*

In 2002, a temperature analysis was conducted for the Outfall 001 discharge (cooling water) to surface water (Irrigation and Hydraulics Unlimited 2002.) The

analysis considered the effects of both MILNE and City of Sunnyside Wastewater Treatment Plant (WWTP) discharges to JD 33.4. The temperature measurements in the drain were less than predicted. The study concluded that because MILNE was discharging cooling water at a period that had lower ground temperatures, providing natural cooling, the addition of cooling at the plant would provide no further benefit. Upstream temperatures in JD 33.4 for 1999 and 2000 were between 8.3 and 15.5 °C from September 21 to November 7. The measured temperature increase for both MILNE and the City of Sunnyside WWTP was less than the allowed temperature increase for MILNE.

## **H. Human health**

Washington's water quality standards include numeric human health-based criteria for 97 priority pollutants that Ecology must consider when writing NPDES permits.

Ecology determined the applicant's discharge is unlikely to contain chemicals regulated to protect human health, Ecology will reevaluate this discharge for impacts to human health at the next permit reissuance.

## **I. Sediment quality**

The aquatic sediment standards (WAC 173-204) protect aquatic biota and human health. Under these standards Ecology may require a facility to evaluate the potential for its discharge to cause a violation of sediment standards (WAC 173-204-400). You can obtain additional information about sediments at the Aquatic Lands Cleanup Unit website. <http://www.ecy.wa.gov/programs/tcp/smu/sediment.html>

Through a review of the discharger characteristics and of the effluent characteristics, Ecology determined that this discharge has no reasonable potential to violate the sediment management standards.

## **J. Groundwater quality limits**

The groundwater quality standards (WAC 173-200) protect beneficial uses of groundwater. Permits issued by Ecology must not allow violations of those standards (WAC 173-200-100).

MILNE does not discharge wastewater to the ground. No permit limits are required to protect groundwater.

**K. Whole effluent toxicity**

The water quality standards for surface waters forbid discharge of effluent that has the potential to cause toxic effects in the receiving waters. Many toxic pollutants cannot be measured by commonly available detection methods. However, laboratory tests can measure toxicity directly by exposing living organisms to the wastewater and measuring their responses. These tests measure the aggregate toxicity of the whole effluent, so this approach is called whole effluent toxicity (WET) testing. Some WET tests measure acute toxicity and other WET tests measure chronic toxicity.

Using the screening criteria in chapter WAC 173-205-040, Ecology determined that toxic effects caused by unidentified pollutants in the effluent are unlikely. Therefore, this permit does not require WET testing. Ecology may require WET testing in the future if it receives information indicating that toxicity may be present in this effluent.

**L. Comparison of effluent limits with the previous permit issued on February 16, 2012**

**Table 8 Comparison of Previous and Proposed Effluent Limits Outfall 001**

Parameter	Basis of Limit	Previous Effluent Limits: Outfall # 001		Proposed Effluent Limits: Outfall # 001	
		Average Monthly	Average Weekly	Average Monthly	Average Weekly
Flow	Technology	Not Applicable	420,000 cubic feet/month	Not Applicable	420,000 cubic feet /month
pH	Technology	Daily minimum is equal to or greater than 6.0 and the daily maximum is less than or equal to 9.0		Daily minimum is equal to or greater than 6.0 and the daily maximum is less than or equal to 9.0	

**Table 9 Comparison of Previous and Proposed pH Limits Outfall 002**

Parameter	Basis of Limit	Previous Effluent Limits	Proposed Effluent Limits
pH	Technology	Daily minimum is equal to or greater than 4.0 and the daily maximum is less than or equal to 11.0	Daily minimum is equal to or greater than 4.0 and the daily maximum is less than or equal to 11.0

**Table 10 Previous Limits for Outfall 002 based on POS-WWTF User Contract  
 March 16, 2015**

	Contracted Monthly Total ft <sup>3</sup>	Peak Monthly Total ft <sup>3</sup>	BOD Monthly Total lbs.¹	TSS Monthly Total lbs.¹	TKN Monthly Total lbs.¹	Total Phosphorous Monthly Total lbs.¹
January	800,000	*	70,000	40,000	2,500	2,500
February	800,000	*	75,000	40,000	2,500	2,500
March	570,000	855,000	80,000	40,000	2,500	2,500
April	570,000	855,000	95,000	40,000	2,500	2,500
May	570,000	855,000	40,000	45,000	3,250	2,500
June	770,000	1,155,000	60,000	45,000	3,250	3,000
July	1,000,000	1,155,000	65,000	54,000	3,250	3,000
August	1,200,000	1,800,000	90,000	54,000	4,000	3,000
September	1,400,000	2,100,000	118,000	66,000	4,750	4,000
October	1,600,000	2,400,000	215,000	78,000	4,750	4,000
November	800,000	*	115,000	66,000	4,000	3,500
December	800,000	*	90,000	40,000	2,500	2,500
<b>Total</b>	<b>10,880,000</b>	<b>NA</b>	<b>1,113,000</b>	<b>608,000</b>	<b>39,750</b>	<b>35,500</b>

\* Total discharge for November through February may not exceed 3,000,000 ft<sup>3</sup>.

**Table 11 Proposed Limits for Outfall 002 based on POS-IWWTF User Contract January 18, 2016**

	Contracted Monthly Total ft <sup>3</sup>	Peak Monthly Total ft <sup>3</sup>	BOD Monthly Total lbs.¹	TSS Monthly Total lbs.¹	TKN Monthly Total lbs.¹	Total Phosphorous Monthly Total lbs.¹
January	800,000	*	104,000	40,000	2,500	2,500
February	800,000	*	117,000	40,000	2,500	2,500
March	670,000	1,005,000	134,000	40,000	2,500	2,500
April	670,000	1,005,000	136,000	40,000	2,500	2,500
May	670,000	1,005,000	181,000	45,000	3,250	2,500
June	870,000	1,305,000	129,000	45,000	3,250	3,000
July	1,100,000	1,650,000	155,000	54,000	3,250	3,000
August	1,300,000	1,950,000	171,000	54,000	4,000	3,000
September	1,600,000	2,100,000	213,000	66,000	4,750	4,000
October	1,700,000	2,400,000	258,000	78,000	4,750	4,000
November	800,000	*	138,000	66,000	4,000	3,500
December	800,000	*	108,000	40,000	2,500	2,500
Total	1,158,0000		1,844,000	608,000	39,750	35,500

\* Total discharge for November through February may not exceed 3,000,000 ft<sup>3</sup>.

#### IV. Monitoring Requirements

Ecology requires monitoring, recording, and reporting (WAC 173-220-210 and 40 CFR 122.41) to verify that the treatment process is functioning correctly and that the discharge complies with the permit's effluent limits.

If a facility uses a contract laboratory to monitor wastewater, it must ensure that the laboratory uses the methods and meets or exceeds the method detection levels

required by the permit. The permit describes when facilities may use alternative methods. It also describes what to do in certain situations when the laboratory encounters matrix effects. When a facility uses an alternative method as allowed by the permit, it must report the test method, detection level (DL), and quantitation level (QL) on the discharge monitoring report or in the required report.

#### **A. Wastewater monitoring**

MILNE monitors for flow, pH and temperature for Outfall 001 and for flow, BOD, COD, TSS, TKN, chloride, pH, Total Phosphorus, Total Dissolved Solids and Fixed Dissolved Solids to further characterize the effluent. This/These pollutant(s) could have a significant impact on the quality of the surface water.

The monitoring schedule is detailed in the proposed permit under Special Condition S.2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

#### **B. Lab accreditation**

Ecology requires that facilities must use a laboratory registered or accredited under the provisions of chapter WAC 173-50, Accreditation of Environmental Laboratories, to prepare all monitoring data (with the exception of certain parameters

### **V. Other Permit Conditions**

#### **A. Reporting and record keeping**

Ecology based Special Condition S3 on its authority to specify any appropriate reporting and record keeping requirements to prevent and control waste discharges (WAC 173-220-210).

#### **B. Non routine and unanticipated wastewater**

Occasionally, this facility may generate wastewater which was not characterized in the permit application because it is not a routine discharge and was not anticipated at the time of application. These wastes typically consist of waters used to pressure-test storage tanks or fire water systems or of leaks from drinking water systems.

The permit authorizes the discharge of non-routine and unanticipated wastewater under certain conditions. The facility must characterize these waste waters for pollutants and examine the opportunities for reuse. Depending on the nature and

extent of pollutants in this wastewater and on any opportunities for reuse, Ecology may:

- Authorize the facility to discharge the wastewater.
- Require the facility to treat the wastewater.
- Require the facility to reuse the wastewater.

### **C. Spill plan**

This facility stores a quantity of chemicals on-site that have the potential to cause water pollution if accidentally released. Ecology can require a facility to develop best management plans to prevent this accidental release [Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080].

MILNE developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the facility to update this plan and submit it to Ecology.

### **D. Solid waste control plan**

MILNE could cause pollution of the waters of the state through inappropriate disposal of solid waste or through the release of leachate from solid waste.

This proposed permit requires this facility to update the approved solid waste control plan designed to prevent solid waste from causing pollution of waters of the state. The facility must submit the updated plan to Ecology for approval (RCW 90.48.080). You can obtain an Ecology guidance document, which describes how to develop a Solid Waste Control Plan, at: <http://www.ecy.wa.gov/pubs/0710024.pdf>

### **E. Operation and maintenance manual**

Ecology requires industries to take all reasonable steps to properly operate and maintain their wastewater treatment system in accordance with state and federal regulations [40 CFR 122.41(e) and WAC 173-220-150 (1)(g)]. The facility has prepared and submitted (01/2004) an operation and maintenance manual as required by state regulation for the construction of wastewater treatment facilities (WAC 173-240-150). Implementation of the procedures in the operation and maintenance manual ensures the facility's compliance with the terms and limits in the permit. The facility must maintain the Port of Sunnyside Industrial Wastewater Treatment Facility User Contract Schedule "A" as an appendix to the O & M Manual and update the O & M Manual immediately when changes to Schedule "A" of the User Contract occur.

## **F. Slug Control Plan**

Slug Control Plans are preventative measures and actions taken to prevent a Slug release to the POTW. A Slug release is a non-routine discharge of an episodic nature, including an accidental spill or a non-customary batch discharge. Slug discharges can potentially cause interference and/or pass through at the POTW, pose a threat to POTW infrastructure and create a dangerous environment to POTW workers. Elements of a Slug Control Plan include identifying potential slug release sources, monitoring for spills or leaks that could reach the POTW, response actions to slug releases and notification procedures including notifying the POTW.

Ecology determined that MILNE has the potential for a batch discharge or a spill that could adversely affect the treatment plant, therefore the proposed permit requires a slug discharge control plan [(40 CFR 403.8 (f)(l) (iii)(B)(6) and (f) (2)(vi)].

## **G. General conditions**

Ecology bases the standardized General Conditions on state and federal law and regulations. They are included in all individual industrial NPDES permits issued by Ecology.

# **VI. Permit Issuance Procedures**

## **A. Permit modifications**

Ecology may modify this permit to impose numerical limits, if necessary to comply with water quality standards for surface waters, with sediment quality standards, or with water quality standards for groundwaters, after obtaining new information from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

Ecology may also modify this permit to comply with new or amended state or federal regulations.

## **B. Proposed permit Issuance**

This proposed permit includes all statutory requirements for Ecology to authorize a wastewater discharge. The permit includes limits and conditions to protect human health and aquatic life, and the beneficial uses of waters of the state of Washington. Ecology proposes to issue this permit for a term of 5 years.

## VII. REFERENCES FOR TEXT AND APPENDICES

Environmental Protection Agency (EPA)

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1985. *Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water*. EPA/600/6-85/002a.

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Tsivoglou, E.C., and J.R. Wallace.

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(<https://fortress.wa.gov/ecy/publications/SummaryPages/92109.html>)

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(<https://fortress.wa.gov/ecy/publications/summarypages/0610100.html>)

Laws and Regulations( <http://www.ecy.wa.gov/laws-rules/index.html>)

Permit and Wastewater Related Information  
(<http://www.ecy.wa.gov/programs/wq/permits/guidance.html> )

February 2007. *Focus Sheet on Solid Waste Control Plan, Developing a Solid Waste Control Plan for Industrial Wastewater Discharge Permittees*, Publication Number 07-10-024. <http://www.ecy.wa.gov/pubs/0710024.pdf>

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## **Appendix A—Public Involvement Information**

Ecology proposes to reissue a permit to Milne Fruit Products. The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and Ecology's reasons for requiring permit conditions.

Ecology will place a Public Notice of Draft on May 19, 2021 in the Sunnyside Sun to inform the public and to invite comment on the proposed draft NPDS permit and fact sheet.

The notice:

- Tells where copies of the draft Permit and Fact Sheet are available for public evaluation (a local public library, the closest Regional or Field Office, posted on our website).
- Offers to provide the documents in an alternate format to accommodate special needs.
- Urges people to submit their comments, in writing, before the end of the Comment Period
- Tells how to request a public hearing of comments about the proposed NPDES permit.
- Explains the next step(s) in the permitting process.

### **NOTICE: ANNOUNCEMENT OF AVAILABILITY OF DRAFT PERMIT**

PERMIT NO.: WA0052060

APPLICANT: Milne Fruit Products  
108 East Blaine Avenue  
Sunnyside, WA 98944

FACILITY: Sunnyside Facility

Milne Fruit Products has applied for a National Pollutant Discharge Elimination System (NPDES) permit in accordance with the provisions of Chapter 90.48 Revised Code of Washington (RCW) and Chapter 173-220 Washington Administrative Code (WAC), and the Federal Clean Water Act.

Following evaluation of the application and other available information, a draft permit has been developed which would allow the discharge of fruit processing wastewater from its facility located at 108 East Blaine Avenue, Sunnyside to the Port of Sunnyside IWWTF. All discharges to be in compliance with the Department of Ecology's Water Quality Standards for a permit to be issued.

A tentative determination has been made on the effluent limitations and special permit conditions that will prevent and control pollution. A final determination will not be made until all timely comments received in response to this notice have been evaluated.

## PUBLIC COMMENT AND INFORMATION

The draft permit and fact sheet may be viewed at the Department of Ecology (Department) website:

<https://apps.ecology.wa.gov/paris/DocumentSearch.aspx?PermitNumber=WA0052060&FacilityName=&City=&County=&Region=0&PermitType=0&DocumentType=0> . The application, fact sheet, proposed permit, and other related documents are also available at the Department's Central Regional Office for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m., weekdays. To obtain a copy or to arrange to view copies at the Central Regional Office, please e-mail [publicrecordsofficer@ecy.wa.gov](mailto:publicrecordsofficer@ecy.wa.gov) or write to Public Records Officer, Department of Ecology, PO Box 47600, Olympia, WA 98504.

Interested persons are invited to submit written comments regarding the proposed permit. All comments must be submitted June 21, 2021 to be considered for the final determination.

Submit comments online at: <https://wq.ecology.commentinput.com/?id=tbiBH> . Written comments should be sent to: Cynthia Huwe, WQ Permit Coordinator, Department of Ecology, Central Regional Office, 1250 West Alder Street, Union Gap, WA 98903-0009.

Any interested party may request a public hearing on the proposed permit within 30 days of the publication date of this notice. The request for a hearing shall state the interest of the party and the reasons why a hearing is necessary. The request should be sent to the above address. The Department will hold a hearing if it determines that there is significant public interest. If a hearing is to be held, public notice will be published at least 30 days in advance of the hearing date. Any party responding to this notice with comments will be mailed a copy of a hearing public notice.

Please bring this public notice to the attention of persons who you know would be interested in this matter. The Department is an equal opportunity agency. If you need this publication in an alternate format, please contact us at (509) 575-2490 or TTY (for the speech and hearing impaired) at 711 or 1-800-833-6388.

Ecology has published a document entitled *Frequently Asked Questions about Effective Public Commenting* which is available on our website at <https://fortress.wa.gov/ecy/publications/SummaryPages/0307023.html>.

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You may obtain further information from Ecology by telephone, 509/457-7105, or by writing to the address listed below.

Water Quality Permit Coordinator  
Department of Ecology  
Central Regional Office  
1250 West Alder Street  
Union Gap, WA 98903

The primary author of this permit and fact sheet is Keith Primm.

## Appendix B—Your Right to Appeal

You have a right to appeal this permit to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of the final permit. The appeal process is governed by RCW 43.21B and WAC 371-08. “Date of receipt” is defined in RCW 43.21B.001(2) (see glossary).

To appeal you must do the following within 30 days of the date of receipt of this permit:

File your appeal and a copy of this permit with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

Serve a copy of your appeal and this permit on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in RCW 43.21B and WAC 371-08.

### ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel RD SW STE 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903

## Appendix C—Glossary

**1-DMax or 1-day maximum temperature** -- The highest water temperature reached on any given day. This measure can be obtained using calibrated maximum/minimum thermometers or continuous monitoring probes having sampling intervals of thirty minutes or less.

**7-DADMax or 7-day average of the daily maximum temperatures** -- The arithmetic average of seven consecutive measures of daily maximum temperatures. The 7-DADMax for any individual day is calculated by averaging that day's daily maximum temperature with the daily maximum temperatures of the three days prior and the three days after that date.

**Acute toxicity** -- The lethal effect of a compound on an organism that occurs in a short time period, usually 48 to 96 hours.

**AKART** -- The acronym for “all known, available, and reasonable methods of prevention, control and treatment.” AKART is a technology-based approach to limiting pollutants from wastewater discharges, which requires an engineering judgment and an economic judgment. AKART must be applied to all wastes and contaminants prior to entry into waters of the state in accordance with RCW 90.48.010 and 520, WAC 173-200-030(2)(c)(ii), and WAC 173-216-110(1)(a).

**Alternate point of compliance** -- An alternative location in the groundwater from the point of compliance where compliance with the groundwater standards is measured. It may be established in the groundwater at locations some distance from the discharge source, up to, but not exceeding the property boundary and is determined on a site specific basis following an AKART analysis. An “early warning value” must be used when an alternate point is established. An alternate point of compliance must be determined and approved in accordance with WAC 173-200-060(2).

**Ambient water quality** -- The existing environmental condition of the water in a receiving water body.

**Ammonia** -- Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

**Annual average design flow (AADF)** -- average of the daily flow volumes anticipated to occur over a calendar year.

**Average monthly (intermittent) discharge limit** -- The average of the measured values obtained over a calendar months' time taking into account zero discharge days.

**Average monthly discharge limit** -- The average of the measured values obtained over a calendar months' time.

**Background water quality** -- The concentrations of chemical, physical, biological or radiological constituents or other characteristics in or of groundwater at a particular point in time upgradient of an activity that has not been affected by that activity, [WAC 173-200-020(3)]. Background water quality for any parameter is statistically defined as the 95% upper tolerance interval with a 95% confidence based on at least eight hydraulically upgradient water quality samples. The eight samples are collected over a period of at least one year, with no more than one sample collected during any month in a single calendar year.

**Best management practices (BMPs)** -- Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

**BOD5** -- Determining the five-day Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD5 is used in modeling to measure the reduction of dissolved oxygen in receiving waters after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD<sub>5</sub> is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

**Bypass** -- The intentional diversion of waste streams from any portion of a treatment facility.

**Categorical pretreatment standards** -- National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties, which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

**Chlorine** -- A chemical used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

**Chronic toxicity** -- The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

**Clean water act (CWA)** -- The federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

**Compliance inspection-without sampling** -- A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

**Compliance inspection-with sampling** -- A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations. In addition it includes as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Ecology may conduct additional sampling.

**Composite sample** -- A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

**Construction activity** -- Clearing, grading, excavation, and any other activity, which disturbs the surface of the land. Such activities may include road building; construction of residential houses, office buildings, or industrial buildings; and demolition activity.

**Continuous monitoring** -- Uninterrupted, unless otherwise noted in the permit.

**Critical condition** -- The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

**Date of receipt** -- This is defined in RCW 43.21B.001(2) as five business days after the date of mailing; or the date of actual receipt, when the actual receipt date can be proven by a preponderance of the evidence. The recipient's sworn affidavit or declaration indicating the date of receipt, which is unchallenged by the agency, constitutes sufficient evidence of actual receipt. The date of actual receipt, however, may not exceed forty-five days from the date of mailing.

**Detection limit** -- The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the pollutant concentration is above zero and is determined from analysis of a sample in a given matrix containing the pollutant.

**Dilution factor (DF)** -- A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction, for example, a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

**Distribution uniformity** -- The uniformity of infiltration (or application in the case of sprinkle or trickle irrigation) throughout the field expressed as a percent relating to the average depth infiltrated in the lowest one-quarter of the area to the average depth of water infiltrated.

**Early warning value** -- The concentration of a pollutant set in accordance with WAC 173-200-070 that is a percentage of an enforcement limit. It may be established in the effluent, groundwater, surface water, the vadose zone or within the treatment process. This value acts as a trigger to detect and respond to increasing contaminant concentrations prior to the degradation of a beneficial use.

**Enforcement limit** -- The concentration assigned to a contaminant in the groundwater at the point of compliance for the purpose of regulation, [WAC 173-200-020(11)]. This limit assures that a groundwater criterion will not be exceeded and that background water quality will be protected.

**Engineering report** -- A document that thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report must contain the appropriate information required in WAC 173-240-060 or 173-240-130.

**Fecal coliform bacteria** -- Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

**Grab sample** -- A single sample or measurement taken at a specific time or over a short a period of time as is feasible.

**Groundwater** -- Water in a saturated zone or stratum beneath the surface of land or below a surface water body.

**Industrial user** -- A discharger of wastewater to the sanitary sewer that is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

**Industrial wastewater** -- Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated stormwater and, also, leachate from solid waste facilities.

**Interference** -- A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

**Local limits** -- Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

**Major facility** -- A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

**Maximum daily discharge limit** -- The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

**Maximum day design flow (MDDF)** -- The largest volume of flow anticipated to occur during a one-day period, expressed as a daily average.

**Maximum month design flow (MMDF)** -- The largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.

**Maximum week design flow (MWDF)** -- The largest volume of flow anticipated to occur during a continuous 7-day period, expressed as a daily average.

**Method detection level (MDL)** -- See Detection Limit.

**Minor facility** -- A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

**Mixing zone** -- An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The permit specifies the area of the authorized mixing

zone that Ecology defines following procedures outlined in state regulations (WAC 173-201A).

**National pollutant discharge elimination system (NPDES)** -- The NPDES (CWA 402) is the federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the state of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both state and federal laws.

**pH** -- The pH of a liquid measures its acidity or alkalinity. It is the negative logarithm of the hydrogen ion concentration. A pH of 7 is defined as neutral and large variations above or below this value are considered harmful to most aquatic life.

**Pass-through** -- A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

**Peak hour design flow (PHDF)** -- The largest volume of flow anticipated to occur during a one-hour period, expressed as a daily or hourly average.

**Peak instantaneous design flow (PIDF)** -- The maximum anticipated instantaneous flow.

**Point of compliance** -- The location in the groundwater where the enforcement limit must not be exceeded and a facility must comply with the Ground Water Quality Standards. Ecology determines this limit on a site-specific basis. Ecology locates the point of compliance in the groundwater as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless it approves an alternative point of compliance.

**Potential significant industrial user (PSIU)** -- A potential significant industrial user is defined as an Industrial User that does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).  
Ecology may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

**Quantitation level (QL)** -- Also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to  $(1,2, \text{or } 5) \times 10^n$ , where n is an integer. (64 FR 30417).

ALSO GIVEN AS:

The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

**Reasonable potential** -- A reasonable potential to cause a water quality violation, or loss of sensitive and/or important habitat.

**Responsible corporate officer** -- A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

**Sample Maximum** -- No sample may exceed this value.

**Significant industrial user (SIU)** --

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process Outfall that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority\* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement [in accordance with 40 CFR 403.8(f)(6)].

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority\* may at any time, on its own initiative or in response to a petition received from an

industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

\*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

**Slug discharge** -- Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate that may cause interference or pass through with the POTW or in any way violate the permit conditions or the POTW's regulations and local limits.

**Soil scientist** -- An individual who is registered as a Certified or Registered Professional Soil Scientist or as a Certified Professional Soil Specialist by the American Registry of Certified Professionals in Agronomy, Crops, and Soils or by the National Society of Consulting Scientists or who has the credentials for membership. Minimum requirements for eligibility are: possession of a baccalaureate, masters, or doctorate degree from a U.S. or Canadian institution with a minimum of 30 semester hours or 45 quarter hours professional core courses in agronomy, crops or soils, and have 5, 3, or 1 years, respectively, of professional experience working in the area of agronomy, crops, or soils.

**Solid waste** -- All putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

**Soluble BOD<sub>5</sub>** -- Determining the soluble fraction of Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of soluble organic material present in an effluent that is utilized by bacteria. Although the soluble BOD<sub>5</sub> test is not specifically described in Standard Methods, filtering the raw sample through at least a 1.2 um filter prior to running the standard BOD<sub>5</sub> test is sufficient to remove the particulate organic fraction.

**State waters** -- Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

**Stormwater** -- That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

**Technology-based effluent limit** -- A permit limit based on the ability of a treatment method to reduce the pollutant.

**Total coliform bacteria** -- A microbiological test, which detects and enumerates the total coliform group of bacteria in water samples.

**Total dissolved solids** -- That portion of total solids in water or wastewater that passes through a specific filter.

**Total maximum daily load (TMDL)** -- A determination of the amount of pollutant that a water body can receive and still meet water quality standards.

**Total suspended solids (TSS)** -- Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

**Upset** -- An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

**Water quality-based effluent limit** -- A limit imposed on the concentration of an effluent parameter to prevent the concentration of that parameter from exceeding its water quality criterion after discharge into receiving waters.

## **Appendix D—Response to Comments**

No comments were received by the Department of Ecology.