

**FACT SHEET FOR STATE WASTE
DISCHARGE PERMIT NO. ST-9158
COLUMBIA COLSTOR**

SUMMARY

Columbia Colstor, Inc. is seeking a renewal of its state wastewater discharge permit for its cold storage facility in Finley, Washington. The facility stores frozen processed foods and serves as a distribution center for these products. No food processing occurs at this facility.

Wastewaters discharged from the facility consist of non-contact cooling water and sanitary wastewater. Non-contact cooling water is discharged to onsite treatment system. The onsite system is permitted and regulated by the county health district and will not be address in this document. Non-contact cooling water is discharged to onsite infiltration ponds.

Chemical additives used to control scaling and biologicals in the cooling water system have been changed since the previous permit was issued. It is the understanding of the Department that the use of brominated compounds has been replaced with potassium hydroxide; therefore, testing for trihalomethanes and phosphate will be eliminated from the next set of permit conditions. The permit requires the Permittee to notify the Department of any changes in treatment processes immediately to enable the Department to adaptively manage any analysis and/or monitoring schedules.

The facility has experienced some problems with controlling the pH of the non-contact cooling water discharge. pH levels have been out of compliance 50% of the Discharge Monitoring Report periods during the last permit term. The record indicates that the pH has been adjusted immediately, when seen to be out of compliance. pH monitoring will be increased from quarterly to monthly.

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INTRODUCTION

This fact sheet is a companion document to State Waste Discharge Permit No. ST-9158. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to waters of the State of Washington. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.162) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. Regulations adopted by the state include procedures for issuing permits (Chapter 173-216 WAC), and water quality criteria for ground waters (Chapter 173-200 WAC). They also establish requirements which are to be included in the permit.

This fact sheet and draft permit are available for review by interested persons as described in Appendix A--Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix D--Response to Comments.

GENERAL INFORMATION	
Applicant	Columbia Colstor
Facility Address	224905 E. Bowles Rd. Kennewick, WA 99337
Type of Facility	Cold Storage Facility
Method of Disposal:	Infiltration Basin
Discharge Location	Ground Water Latitude: 46° 10' 00" N Longitude: 119° 01' 35" W.
Legal Description of Application Area	NE1/4 of the NW1/4, Section 23, Township 8 North, Range 30 E. W. M.
Contact at Facility	Name: Deb Langshaw Telephone #: 509-765-3343
Responsible Official	Name: Donald McGraw Title: President Address: 2730 W. Marina Drive, Moses Lake, WA 98837 Telephone #: 509-765-3343

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

The Columbia Colstor warehouse is a refrigerated storage facility for frozen prepared foods, located in Finley, Washington, approximately five miles southeast of Kennewick. The property is mainly on the south side of Bowles Road, and is situated between the Burlington Northern Santa Fe Railroad track to the west, and the Union Pacific Railroad track to the east. Privately-owned land and a U. S. Army Corps of Engineers drainage ditch lie to the south of the property. The Columbia River is approximately 700 feet to the northeast.

This storage facility began operating in September 1991. Frozen food products, primarily packaged potato french fries on pallets, are stored during high production periods and distributed throughout the year as needed.

The original building, which contained approximately 200,000 square feet of storage, was recently expanded by an additional 240,000 square feet of capacity. All refrigerated storage, the maintenance shop, and business offices are located within the expanded building. The

warehouse has a storage capacity of approximately 130 million pounds of frozen food products, kept at a temperature of -5° F.

The facility's water supply comes from an onsite well. The well is 234 feet deep and supplies approximately 82 gallons per minute. An average of 20 gallons per minute is used to replenish the cooling water system and the remainder is used for domestic purposes. Columbia Colstor holds Water Right Permit No. G4-30811P.

The company owns a wedge-shaped piece of land north of Bowles Road that serves as an employee parking lot. Total area of the site is approximately 47.6 acres. The facility operates three shifts per day, seven days a week, and will employ approximately 140 people when the expanded warehouse capacity becomes fully operational.

A large fertilizer and ammonia plant, owned by Unocal Oil Co., is located east of the Columbia Colstor property. The existence of the Unocal facility may be relevant to this permit, because accidental releases of ammonia and other fertilizer byproducts that have occurred in the past have impacted ground water quality in the area. However, because ground water flow is generally towards the south, it is unlikely that the portion of the aquifer beneath Columbia Colstor has been affected by releases from the Unocal facility.

Industrial Processes

The cold storage units use ammonia as the refrigerant. Spent (gaseous) ammonia is concentrated by large compressors, and then condensed to liquid in cooling towers mounted on the roof. Refrigeration units are mounted on the roof of the original building.

Potassium hydroxide is routinely added to non-contact cooling water to control scaling and biologicals

The plant is monitored and controlled by a computerized system. Non-contact cooling water, a maximum of 29,400 gallons per day, is the only process wastewater generated and discharged by the facility.

Wastewater Disposal (Infiltration Basin)

The only wastewater generated by the facility consists of non-contact cooling water. Cooling water from the refrigeration units is collected in a roof gutter, conveyed through drainpipes down the side of the building, and piped into a small infiltration pond south of the building.

Two onsite infiltration ponds are used to dispose of non-contact cooling water. The original pond has a storage capacity of approximately 155,000 gallons (or 20,700 ft³). In 1993, facility

managers noticed the infiltration rate of this pond was decreasing. Further study indicated a buildup of algae and sediment on the pond bottom was responsible for decreased infiltration.

The company installed two 25 foot percolation trenches beneath the pond, and periodically scarify the bottom, to enhance and preserve the infiltration rate.

A new, much larger infiltration pond was constructed near the south boundary of the property. The new pond, with a storage capacity of almost 2.3 million gallons (or 306,800 ft³), will act as overflow storage for the original pond. The new infiltration pond is greatly oversized to allow for future expansion of the facility.

Storm Water Disposal

All storm water is handled on site. A system of drains and pipes collects the storm water from the roof, the front and rear impervious surfaces and directs flow into the wastewater infiltration pond located in the back of the facility. Sampling of the non-contact cooling water occurs at the top of the cooling tower

SUBSURFACE CONDITIONS

Field explorations were performed on January 27 and 29, 1997 in preparation for expansion of the facility. Four exploratory borings, 25 feet deep, were drilled within the proposed building footprint. In addition, two exploratory test pits, about 10 to 12 feet deep, were excavated near the proposed warehouse expansion. Three additional test pits were excavated near the southwest corner of the property, in the area of the proposed storm water and sanitary drainfield additions.

One test pit excavated in the area of the new infiltration pond revealed loose, brown, silty, slightly moist sand from ground surface to a depth of approximately four feet. Dense to very dense, black and gray, poorly graded gravel with sand was encountered from a depth of almost four feet to nearly nine feet.

The two other test pits in this area of the property revealed loose, brown, silty, slightly moist sand from ground surface to a depth of approximately one foot. Dense to very dense, black and gray, poorly graded gravel with sand was encountered from a depth of about one foot to nearly nine feet.

GROUND WATER

Ground water was generally encountered at a depth of 25 feet below ground surface under the warehouse expansion. Near the southwest corner of the site, in the area of the new infiltration pond, ground water was encountered at depths varying from 7.5 to 8.0 feet below the ground

surface. After completion of construction, ground water was found to be 1 foot below the bottom of north end of the pond and 2 feet below the bottom of the south end of the pond.

Ground water flow is southerly, towards the U. S. Army Corps of Engineers drainage ditch. January 2000 well water analysis data submitted by Columbia Colstor is tabulated below.

Analyte	Concentration
Nitrate as Nitrogen	0.07 mg/l
MPN-Coliform	0/5 tubes
Fluoride	2 mg/l
Sodium	55.6 mg/l
Hardness	64.2 mg/l
Conductivity	364 $\mu\Omega/cm$
Color	< 4 color units
Turbidity	<0.5 NTU
TDS	224 mg/l
Magnesium	8.67 mg/l
Calcium	11.4 mg/l
Antimony	0.005 mg/l
Chloride	18.2 mg/l

EPA and Washington State regulated volatile organic compounds were analyzed via EPA Test Method-524.2 all were found to be below the limits of detection.

PERMIT STATUS

The previous permit for this facility was issued on January 22, 1998.

An application for permit renewal was submitted to the Department on October 18, 2002 and accepted by the Department on January 13, 2003.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

A compliance inspection without sampling was conducted on January 13, 1998.

The facility has experienced some problems with controlling the pH of the non-contact cooling water discharge. 50% of the time the pH has been out of compliance. The record indicates that the pH has been adjusted immediately upon detection of discharge out of compliance. pH monitoring will be increased from quarterly to monthly.

WASTEWATER CHARACTERIZATION

The wastewater is characterized by averaging the past four years of Discharge Monitoring Reports for the following parameters:

Parameter	Result
Total Phosphorous	0.4 mg/L
Fluoride	1.3 mg/L
Total Dissolved Solids	379.4 mg/L
Total Suspended Solids	39.1 mg/L
Total Volatile Suspended Solids	5.4 mg/L

SEPA COMPLIANCE

A Determination of Nonsignificance was issued by the Benton County Planning and Building Department on May 10, 1991 for construction of the original facility. A Determination of Nonsignificance for the facility expansion was issued by the same agency on March 3, 1997.

PROPOSED PERMIT LIMITATIONS

State regulations require that limitations set forth in a waste discharge permit must be either technology- or water quality-based. Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not pollute the waters of the State.

The permit also includes limitations on the quantity and quality of the wastewater applied to the infiltration basins that have been determined to protect the quality of the ground water. Water quality-based limitations are based upon compliance with the Ground Water Quality Standards (Chapter 173-200 WAC).

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). However, in the case of non-contact cooling water discharges, the Department has not defined AKART.

The Department presumes that non-contact cooling water not containing priority pollutants or dangerous wastes will typically be non-toxic. This presumption is based on the fact that no historical Departmental record has linked any environmental degradation to cooling water discharges from cold storage facilities.

GROUND WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's ground waters including the protection of human health, WAC 173-200-100 states that waste discharge permits shall be conditioned in such a manner as to authorize only activities that will not cause violations of the Ground Water Quality Standards. Drinking water is the beneficial use generally requiring the highest quality of ground water. Providing protection to the level of drinking water standards will protect a great variety of existing and future beneficial uses.

Applicable ground water criteria as defined in Chapter 173-200 WAC and in RCW 90.48.520 for this discharge include the following:

Table 1: Ground Water Quality Criteria

Parameter	Concentration
Total Dissolved Solids	500 mg/L
pH	6.5 to 8.5 standard units

The Department has reviewed existing records and is unable to determine if background ground water quality is either higher or lower than the criteria given in Chapter 173-200 WAC; therefore, the Department will use the criteria expressed in the regulation in the proposed permit. The discharges authorized by this proposed permit are not expected to interfere with beneficial uses.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, that ground water criteria are not violated, and that effluent limitations are being achieved (WAC 173-216-110).

WASTEWATER MONITORING

The monitoring schedule is detailed in the proposed permit under Condition S2. 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.

Monitoring for pH and total dissolved solids is being required to assure compliance with the state ground water quality standards for these parameters.

Ground water quality standards do not exist for phosphorous or suspended solids. During the past permit term phosphorous was monitored because it was a constituent of an anti-scaling additive employed at that time. The monitoring was conducted to assess the potential for ground water contamination and determine if any pretreatment would be required. The facility has since changed to phosphorous free anti-fouling chemistry, thereby eliminating any need for phosphorous monitoring. Monitoring for phosphorous will be discontinued in this permit cycle.

Suspended solids and volatile total suspended solids concentrations in the discharge have been consistently low over the last permit cycle. However, monitoring of total suspended solids and volatile solids will be continued into the next permit cycle for the following reasons: to assure the infiltration ability of the pond, and to prevent the establishment of anaerobic conditions beneath the pond. Suspended solids can clog soil pores, decreasing the percolation capacity of the pond and creating anaerobic conditions in the vadose zone.

VADOSE ZONE AND GROUND WATER MONITORING

Neither vadose zone monitoring nor ground water monitoring will be required at this time. Based on results of the partial characterization of wastewater, and past experience with non-contact cooling water from other facilities, discharge of non-contact cooling water by Columbia Colstor is not expected to have a detrimental effect on ground water quality. It is the best professional judgment of the Water Quality engineer that monitoring of the discharge at the infiltration pond will provide more timely indication of potential impacts to ground water. The Department reserves the right to require appropriate monitoring of the vadose zone or ground water if a threat to ground water quality is discovered.

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3. are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-216-110).

FACILITY LOADING

Hydraulic Loading

Information submitted by Columbia Colstor's engineering department and JUB Engineers, Inc. indicate that the hydraulic loading capacity of the wastewater disposal ponds is much greater than the present discharge rates of non-contact cooling water from the facility. Designing for over-capacity was deliberate, to allow for further expansions in warehouse capacity, and consequent greater discharge volumes of cooling water.

Non-contact cooling water and stormwater from the roof of the original warehouse is piped to the original infiltration pond just south of the building. This pond has a capacity of 20,700 ft³, or 154,836 gallons. The percolation rate of this pond is unknown.

Overflows from the first pond are piped to the new infiltration pond, located near the south property line. The capacity of the overflow pond is 306,800 ft³, or 2,294,864 gallons. The sustainable hydraulic loading rate of this structure, reported as the percolation rate, is 21.75 cfs, or 162.7 gallons per second. This translates to 9,761 gallons per minute (gpm). The Permittee reports a non-contact cooling water discharge rate of 25 to 30 gpm. Conservatively, the design safety factor for this pond is calculated as

$$9,761 \text{ gpm (perc. rate)} \div 30 \text{ gpm (cooling water discharge rate)} = 325.4$$

Because of the extreme over-capacity of the treatment system in respect to discharge volume, the Permittee is not required to monitor flow. In the event the non-contact cooling water discharge flow increases above 150 gallons per minute, the Permittee is required to notify the permit manager.

This permit requires the Permittee to maintain adequate capacity to treat flows and waste loadings to the treatment plant (WAC 173-216-110[4]). For significant changes in loadings to the treatment works, the permit requires a new application and engineering report (WAC 173-216-110[5]).

Nutrient Loading

Based on preliminary analysis of wastewater constituents and past experience with non-contact cooling water discharges from other facilities, the Department does not have any concerns with nutrient loading or exceedance of the state ground water quality standards. However, the Permittee is required to implement the monitoring program detailed in Special Condition S2 of the permit, and notify the Department of any changes which may affect the character of the

wastewater discharge. Furthermore, the Department reserves the right to modify the permit if monitoring results reveal a potential to impact ground water quality.

The permit requires the Permittee to maintain adequate capacity to treat the flows and waste loading to the treatment plant (WAC 173-216-110[4]). For significant changes in loadings to the treatment works, the permit requires a new application and an engineering report (WAC 173-216-110[5]).

OPERATIONS AND MAINTENANCE

The proposed permit contains condition S4. as authorized under RCW 90.48.110, WAC 173-220-150, Chapter 173-230 WAC, and WAC 173-240-080. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

Due to the rudimentary nature of the wastewater treatment system, and the results of the preliminary characterization of non-contact cooling water, development of an Operations and Maintenance Manual is not required at this time. The wastewater conveyance and disposal system consists of piping and the infiltration ponds: there are no moving parts to the system that can malfunction. Furthermore, analysis of wastewater reveals the absence of any priority pollutants. Therefore, in the unlikely event of a spill or bypass, wastewater would have little, or no, impact on water quality.

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The proposed permit requires the Permittee to develop and implement a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs.

There are two above ground CO₂ storage tanks located onsite. Their storage capacities are 120 tons and 54 tons of liquid CO₂. Ammonia and propane are stored in sealed, above ground tanks. A 500 gallon tank of diesel fuel is located in the water well pump house and has secondary containment. Small quantities of paints and lubricants are stored in a covered and secured storage unit on the north side of the property.

The Permittee is required to notify the Department of any revisions to the Spill Control Plan on file as needed under condition S6.

ADDITIONAL CHEMICAL ANALYSIS OF EFFLUENT

The Permittee may be required to characterize wastewater effluent twice during the permit cycle. This requirement will be dependant upon a decision reached by the Department after considering the method the Permittee chooses for biological and scaling controls in the water cooling system, the dosage levels employed and duration. The Permittee is required to inform the Department of any treatment changes and to provide quarterly reports on dosage levels of biocide and anti-scaling control chemistries.

GENERAL CONDITIONS

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to ground water permits issued by the Department. Condition G1. requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2. requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3. specifies conditions for modifying, suspending or terminating the permit. Condition G4. requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5. requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6. prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7. and G8. relate to permit renewal and transfer. Condition G9. requires the payment of permit fees. Condition G10. describes the penalties for violating permit conditions.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, and to protect human health and the beneficial uses of waters of the State of Washington. The Department proposes that the permit be issued for five (5) years.

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REFERENCES FOR TEXT AND APPENDICES

Faulkner, S.P., Patrick Jr., W.H., Gambrell, R.P., May-June, 1989. Field Techniques for Measuring Wetland Soil Parameters, Soil Science Society of America Journal, Vol. 53, No.3.

Washington State Department of Ecology, 1993. Guidelines for Preparation of Engineering Reports for Industrial Wastewater Land Application Systems, Ecology Publication # 93-36. 20 pp.

Washington State Department of Ecology, 1996. Implementation Guidance for the Ground Water Quality Standards, Draft Document.

Washington State University, November, 1981. Laboratory Procedures - Soil Testing Laboratory. 38 pp.

APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to issue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on July 24, 2002 in the Tri-City Herald to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department published a Public Notice of Draft (PNOD) on February 20, 2003 in the Tri-City Herald to inform the public that the draft permit and fact sheet are available for review upon request. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

**Water Quality Permit Coordinator
Department of Ecology
Central Regional Office
15 West Yakima Avenue, Suite 200
Yakima, WA 98902-3401**

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (509) 575-2821, or by writing to the address listed above.

This permit was written by Richard A. Marclely.

APPENDIX B--GLOSSARY

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.

Average Monthly Discharge Limitation--The average of the measured values obtained over a calendar month's time.

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 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 a receiving water 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 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 the collection or treatment facility.

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 to accomplish the purpose of a Compliance Inspection - Without Sampling and 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. Additional sampling may be conducted.

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.

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.

Engineering Report--A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

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

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 storm water and, also, leachate from solid waste facilities.

Maximum Daily Discharge Limitation--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.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

pH--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

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.

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 storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Technology-based Effluent Limit--A permit limit that is 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 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.

Water Quality-based Effluent Limit--A limit on the concentration of an effluent parameter that is intended to prevent pollution of the receiving water.

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APPENDIX C--RESPONSE TO COMMENTS

No comments were received.