Permit No. WA-002465-1
Issuance Date: February 20, 1998
Effective Date: March 1, 1998
Expiration Date: June 30, 2002
Modification Date: May 29, 2001

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT No. WA-002465-1

State of Washington
DEPARTMENT OF ECOLOGY
Northwest Regional Office
3190 – 160th Avenue SE
Bellevue, WA 98008-5452

In compliance with the provisions of
The State of Washington Water Pollution Control Law
Chapter 90.48 Revised Code of Washington
and
The Federal Water Pollution Control Act
(The Clean Water Act)
Title 33 United States Code, Section 1251 et seq.

PORT OF SEATTLE
SEATTLE-TACOMA INTERNATIONAL AIRPORT
P.O. Box 68727
Seattle, Washington 98168

Facility Location	Industry Type
Sea-Tac International Airport Seattle, Washington King County	Airport
Water Body I.D. No.	**Receiving Water**
(i) WA-PS-0270	(i) Puget Sound (Industrial Wastewater)
(ii) WA-09-2000	(ii) Des Moines Creek, (Stormwater)
(iii) WA-09-2005	(iii) Miller Creek (Stormwater)
(iv) WA-09-1020	(iv) City of SeaTac Storm Sewer, tributary to Gilliam Creek and the Green River (Stormwater)
(vi) 1223370474523	(v) Midway Sewer District Sanitary Sewer (Miscellaneous Blowdown)
(vii) 1222552474518	(vi) Walker Creek and tributaries (Construction Stormwater)
	(vii) Gilliam Creek and tributaries (Construction Stormwater)

is authorized to discharge in accordance with the special and general conditions which follow.

Kevin C. Fitzpatrick
Water Quality Section Manager
Northwest Regional Office
Washington State Department of Ecology

Discharge Location:

(i) Puget Sound

Outfall 001	Latitude:	47° 24' 07" N
	Longitude:	122° 20' 07" W

(ii) Des Moines Creek

Outfall 002 (SDE4)	Latitude:	47° 26' 13" N
	Longitude:	122° 17' 38" W
Outfall 003 (SDS1)	Latitude:	47° 26' 00" N
	Longitude:	122° 18' 01" W
Outfall 004 (SDS2)	Latitude:	47° 25' 50" N
	Longitude:	122° 18' 42" W
Outfall 005 (SDS3)	Latitude:	47° 25' 58" N
	Longitude:	122° 18' 30" W
Outfall 009 (SDS4)	Latitude:	47° 25' 33" N
	Longitude:	122° 18' 15" W
Outfall 010 (SDW3)	Latitude:	47° 26' 09" N
	Longitude:	122° 18' 53" W
Outfall 014 (Sub-basin B)	Latitude:	47° 26' 07" N
	Longitude:	122° 18' 48" W
Outfall 015 (Sub-basin D)	Latitude:	47° 26' 06" N
	Longitude:	122° 18' 46" W

(iii) Miller Creek

Outfall 006 (SDN1)	Latitude:	47° 27' 56" N
	Longitude:	122° 18' 09" W
Outfall 007 (SDN2)	Latitude:	47° 28' 00" N
	Longitude:	122° 18' 28" W
Outfall 008 (SDN3)	Latitude:	47° 27' 59" N
	Longitude:	122° 18' 45" W
Outfall 011 (SDN4)	Latitude:	47° 28' 00" N
	Longitude:	122° 18' 38" W

(iv) City of SeaTac Storm Sewer

Outfall 012 (Engineering Yard)	Latitude:	47° 27' 34" N
	Longitude:	122° 17' 50" W
Outfall 013 (Taxi Yard)	Latitude:	47° 27' 37" N
	Longitude:	122° 17' 43" W

TABLE OF CONTENTS

GENERAL CONDITIONS

SUMMARY OF SCHEDULED PERMIT REPORT SUBMITTALS

Permit Section	Submittal	Frequency	First Submittal Date
S1.F	IWS Collection System Integrity Scope of Work	Once/permit cycle	June 30, 1999
S1.F	IWS Collection System Integrity Investigation Report	Once/permit cycle	December 31, 2001
S2.B	Procedures Manual for Stormwater Sampling	Once/permit cycle	Within three (3) months of effective date
S2.C	Construction Stormwater/Dewatering Monitoring Plan	As necessary	Thirty (30) days prior to start of construction
S2.D	Glycol Usage Summary Report	Annually	June 1, 1998
S2.E	Annual Stormwater Monitoring Summary Report	Annually	October 1, 1998
S2.F	Annual Sanitary Sewer Discharge Summary Report	Annually	January 15, 2000
S3.A	Discharge Monitoring Report (Industrial Wastewater)	Monthly	April 1, 1998
S3.B	Discharge Monitoring Report (Stormwater)	Monthly, Quarterly, Semi-annually, and Annually	April 1, 1998
S3.C	Discharge Monitoring Report (Construction Stormwater)	Every other Month	July 1, 2001
S4	IWS Engineering Report	Once/permit cycle	Within two (2) months of effective date
S5.A	Operations and Maintenance Manual Update or Review Confirmation Letter	Annually	Within one (1) year of effective date
S7	Spill Plan	Once /permit cycle	Within one (1) year of effective date
S8.A	IWS Acute Toxicity Characterization Data	Quarterly for one (1) year	Within sixty (60) days of sample date
S8.A	IWS Acute Toxicity Tests Characterization Summary Report	Once/permit cycle	Within ninety (90) days of last test
S9.A	IWS Chronic Toxicity Characterization Data	Quarterly for one (1) year	Within sixty (60) days of sample date
S9.A	IWS Chronic Toxicity Characterization Summary Report	Once/permit cycle	Within ninety (90) days of last test

Permit Section	Submittal	Frequency	First Submittal Date
S10.A	Stormwater Acute Toxicity Characterization Data	10/permit cycle	Within sixty (60) days of sample date
S10.A	Stormwater Acute Toxicity Tests Characterization Summary Report	1/permit cycle	Within ninety (90) days of last test
S11.A	Sediment Baseline Sampling and Analysis Plan	1/permit cycle	Within one (1) year of effective date
S11.B	Sediment Data Report	1/permit cycle	Within three (3) years of effective date
S12.B	Stormwater Pollution Prevention Plan for Airport Operations	2/permit cycle	November 30, 1998
S14	Lake Reba Operations and Maintenance Plan	Once/permit cycle	Within three (3) months of effective date
S15	IWS Hydrogeologic Study Scope of Work	Once/permit cycle	Within six (6) months of effective date
S15	IWS Hydrogeologic Study Final Report	Once/permit cycle	June 30, 2000
G1	Notice of Change in Authorization	As necessary	
G7	Application for Permit Renewal	1/permit cycle	One hundred and eighty (180) days before permit expiration

SPECIAL CONDITIONS

S1. DISCHARGE LIMITATIONS

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a concentration in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of this permit. Compliance with this permit is deemed compliance with the Federal Water Pollution Control Act, also known as the Clean Water Act (33 U.S.C. § 1251, et seq.) and the Water Pollution Control Act (RCW 90.48). This permit regulates the discharges at Seattle-Tacoma International Airport identified in paragraphs S1. A-H. This permit also covers the discharge of construction stormwater related to the construction of temporary interchanges for SR 509 and SR 518.

A. Interim Effluent Limitations - Industrial Wastewater

Beginning on the effective date of this permit and lasting to the effective date of the final effluent limitations, the Permittee is authorized to discharge treated industrial wastewater[a] to Puget Sound subject to meeting the following limitations:

INTERIM EFFLUENT LIMITATIONS: OUTFALL 001		
Parameter	Average Monthly[b]	Maximum Daily[c]
Flow	---	4,800 gpm[d]
pH	---	Within the range of 6.0 to 9.0 Std. Units
Oil and Grease	8 mg/L[e]	15 mg/L[e]
Total Suspended Solids (TSS)	21 mg/L	33 mg/L

[a] Industrial wastewater is water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater, non-contact cooling water, or stormwater associated with industrial activity. Industrial wastewater may result from any process or activity of industry, manufacture, trade or business, and includes, but is not limited to: water used for industrial processes such as pipe integrity pressure testing and vehicle and aircraft wash water; stormwater contaminated with fuel, oil, fire foam, cleaning agents and aircraft deicing/anti-icing agents; contaminated construction dewatering waters; excess water from ground water well construction and monitoring; and leachate from solid waste facilities. Industrial wastewater does not include stormwater runoff that contains deicing/anti-icing agents that shear or drip from aircraft in the storm drainage system.

S1. DISCHARGE LIMITATIONS (CONTINUED)

[b] The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
[c] The highest allowable daily discharge of a pollutant (or flow) 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 (or flow) over the day.
[d] Flow shall not exceed the discharge rate specified in the Midway Sewer District discharge agreement. See Footnote S1.B[d].
[e] These oil and grease effluent limitations are based on Method 413.1, and are subject to modification based on the outcome of monitoring with Method 1664. The permit may be modified to establish equivalent effluent limitations after the side-by-side monitoring outlined in Special Condition S2.A, footnote c, is concluded.

B. Final Effluent Limitations - Industrial Wastewater

Beginning on the date of completion of start up of the Permittee's approved treatment system as required under Special Condition S4 and lasting through the expiration date of this permit, the Permittee is authorized to discharge treated industrial wastewater[a] to Puget Sound subject to meeting the following limitations:

FINAL EFFLUENT LIMITATIONS: OUTFALL 001		
Parameter	Average Monthly[b]	Maximum Daily[c]
Flow	–	2,500 gpm[d]
pH		Within the range of 6.0 to 9.0 Std. Units
Oil and Grease	TBD[e]	TBD[e]
TSS	TBD[e]	TBD[e]
Biochemical Oxygen Demand (BOD_5)	TBD[e]	TBD[e]

S1. DISCHARGE LIMITATIONS (CONTINUED)

[a] Industrial wastewater is water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater, non-contact cooling water, or stormwater associated with industrial activity. Industrial wastewater may result from any process or activity of industry, manufacture, trade or business, and includes, but is not limited to: water used for industrial processes such as pipe integrity pressure testing and vehicle and aircraft wash water; stormwater contaminated with fuel, oil, fire foam, cleaning agents and aircraft deicing/anti-icing agents; contaminated construction dewatering waters; excess water from ground water well construction and monitoring; and leachate from solid waste facilities. Industrial wastewater does not include stormwater runoff that contains deicing/anti-icing agents that shear or drip from aircraft in the storm drainage system.
[b] The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
[c] The highest allowable daily discharge of a pollutant (or flow) 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 (or flow) over the day.
[d] Flow shall not exceed 2,500 gpm whenever the combined flow from the IWS and Midway Sewer District exceeds ninety percent (90%) of the outfall's present capacity of twelve thousand five hundred (12,500) gpm. The 2,500 gpm limitation may be increased if the outfall capacity is increased.
[e] Effluent limitations shall be determined by the Department after approval of the AKART Engineering Report required in Special Condition S4. Final effluent limitations will be set through a major modification of the permit and will be subject to public comment.

C. Mixing Zone Description - Outfall 001

The boundaries of the mixing zone for Outfall 001 shall be defined by the Department through a major permit modification after the AKART determination required by Special Condition S4.

D. Non-Contact Cooling Water

Discharge of non-contact cooling water to waters of the State is prohibited. Cooling tower blowdown may be discharged to the sanitary sewer with permission from the Midway Sewer District.

S1. DISCHARGE LIMITATIONS (CONTINUED)

E. Stormwater Drainage System

Discharge of industrial wastewater to the Storm Drain System is prohibited. Stormwater associated with industrial activity and construction activity may be discharged to the storm drainage system in accordance with the terms and conditions of this permit. Overflows of untreated industrial wastewater from the IWS collection systems or lagoons due to stormwater flows in excess of the design criteria are authorized bypasses that are not subject to this condition.

F. Ground Water Discharges

The Permittee shall apply the following known, available, and reasonable methods to prevent the unintentional release of industrial wastewater to groundwater:

1) The Permittee shall clean and line Lagoon No. 3 as part of the Compliance Schedule set forth in Special Condition S4; and

2) On or before June 30, 1999, the Permittee shall submit a scope of work to Ecology to investigate the integrity of the IWS collection system by assessing the structural integrity of a representative portion of the IWS piping system. The assessment shall provide an overview of the entire IWS Collection System including the IWTP interconnecting piping, and shall explain how the "representative portion" of the system was selected. The assessment shall be completed prior to December 31, 2001.

   If the assessment detects significant leaks, the Permittee shall assess the remaining portions of the represented system in the shortest practicable time and, in consultation with the Department, shall assess whether any of the leaks show a reasonable potential to violate ground water quality standards. If a reasonable potential to violate ground water standards is shown, the Permittee shall, in consultation with the Department and within six (6) months of such a showing, develop a schedule to repair, if feasible, the leaking portion of the collection system. If it is not feasible to repair the leaking portion, the Permittee shall propose an alternative. The Permittee may, at its discretion, forego the reasonable potential analysis and elect to develop, within six (6) months of detection of the leaks, a schedule to repair the pipeline. Cleanups of residual contamination due to releases of industrial wastewater or contaminants are regulated under the Model Toxics Control Act ("MTCA") and are not regulated under this permit. Ongoing discharges of industrial wastewater or contaminants are regulated under this permit.

   Discharge of stormwater to ground water is permitted.

S1. DISCHARGE LIMITATIONS (CONTINUED)

G. Construction Related Discharges

This permit authorizes the discharge of stormwater associated with construction and uncontaminated construction dewatering to waters of the state of Washington and/or to municipal storm drains from airport construction sites. Stormwater and uncontaminated construction dewatering water may be discharged through temporary construction outfalls to Miller Creek, Des Moines Creek, the City of SeaTac Storm Sewer, tributary to Gilliam Creek and the Green River, the IWS, Gilliam Creek and tributaries, and Walker Creek and tributaries. A SWPPP for construction activity, including construction dewatering, shall be prepared and implemented prior to the commencement of any construction activity which disturbs five (5) or more acres of total land area (or other minimum land area to be determined by federal regulation), as required in Special Condition S13.

H. Municipal Sewer System Discharges

During the period beginning on the date of issuance and lasting through the expiration date of this permit, the Permittee is authorized to discharge boiler blowdown, cooling tower blowdown, rental car wash blowdown, and equipment wash rack blowdown to the Midway Sewer District sewer system subject to the following limitations:

FINAL EFFLUENT LIMITATIONS: Sanitary Sewer Discharge		
Parameter	Average Monthly[a]	Maximum Daily[b]
Flow (Boiler Blowdown)	125 gpd	500 gpd
Flow (Cooling Tower Blowdown)	7,200 gpd	200,000 gpd
Flow (Rental Car Wash Blowdown)	15,250 gpd	15,250 gpd
Flow (Equipment Wash Rack Blowdown)	1,000 gpd	1,000 gpd
Oil and Grease[c]	--	100 mg/L
[a] The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.		
[b] The highest allowable daily discharge of a pollutant (or flow) 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 (or flow) over the day		
[c] The oil and grease effluent limitation applies to the rental car wash and equipment wash rack blowdown waste streams.		

S2. MONITORING REQUIREMENTS

A. Industrial Wastewater

The Permittee shall monitor the effluent from the Industrial Wastewater System (IWS) prior to mixing with the Midway Wastewater Treatment Plant effluent according to the following schedule:

Parameter	Units	Minimum Sampling Frequency[a]	Sample Type
Maximum Daily Flow	gpm	Daily	continuous
pH	Standard Units	1/week	grab
TSS	mg/L	1/week	composite[b]
Oil and Grease[c]	mg/L	1/week	grab
BOD_5	mg/L	1/month	composite[b]
Total Glycols[d]	mg/L	1/month[e]	composite[b]
Total Petroleum Hydrocarbon (TPH)[f]	mg/L	1/month	grab
Fecal Coliform	#/100 mls	1/month[g]	grab
Priority Pollutants[h]	mg/L	annually	grab/ composite

[a] If no discharge occurs in a given month, sampling is not required. "No Discharge" shall be clearly stated on that month's discharge monitoring report. A day shall be a calendar day and a month shall be a calendar month. A week shall be a period of time lasting seven consecutive days, beginning at 12:00 am on the first day of operation and ending at 11:59 PM on the seventh day of operation when the treatment plant is operated intermittently. Intermittent operation includes start up and shut down.

[b] Composite samples shall be a combination of at least four representative grab samples of a fixed volume collected at equal time intervals throughout the normal working day. Automatically timed composited samples are preferred over manually collected samples.

[c] The IWS effluent shall be monitored for oil and grease using Method 413.1. When a laboratory in the greater Seattle area is certified for Method 1664, the IWS effluent shall be monitored for oil and grease using both Method 413.1 and Method 1664 for a period of one (1) year or for as long as Method 413.1 is available but no longer than one year. During the one-year period of side-by-side monitoring, compliance with the effluent limits for oil and grease shall be based on Method 413.1.

[d] Total glycols equals the sum of ethylene glycol and propylene glycol.

[e] The IWS effluent shall be monitored for both ethylene and propylene glycol once per month upon being notified by the airlines that aircraft deicing or anti-icing has occurred. BOD_5 shall be sampled concurrently with glycols in those months deicing occurs.

[f] Total Petroleum Hydrocarbons shall be measured using the NWTPH-D_x method or an equivalent method approved by the Department.

[g] This monitoring requirement may be eliminated with Department approval if the Permittee can show that fecal coliform from human sources are not present.

[h] Priority pollutant monitoring shall include: semivolatiles (organic acid extractables and organic base-neutral extractables), volatile organic analysis, and total recoverable copper, lead, and zinc.

S2. MONITORING REQUIREMENTS (CONTINUED)

B. Non-construction Stormwater

The Permittee shall monitor stormwater discharges according to the following monitoring schedule. No monitoring is necessary for reporting periods in which there are no storm events that meet the criteria set forth in the Procedures Manual for Stormwater Sampling. All samples shall be collected according to the procedures outlined in a Procedures Manual for Stormwater Sampling. The Permittee shall submit an updated Procedures Manual to the Department for review and approval within three (3) months of the effective date of this permit. The Permittee shall include the following data for each sampled storm event in the Annual Stormwater Monitoring Summary Report required in Special Condition S2.E: date, duration, the number of dry hours preceding the storm event, total rainfall during the storm event (inches), maximum flow rate during the rain event (gallons per minute), and the total flow from the rain event (gallons). The Permittee shall also include a monthly summary of daily rainfall in the Annual Stormwater Monitoring Summary Report.

1. The Permittee shall monitor the stormwater discharges at Outfalls 002, 005, 006[a], and 011 according to the following schedule:

Parameter	Units	Minimum Sampling Frequency	Sample Type
TPH[b]	mg/L	eight/year[c]	grab
TSS	mg/L	eight/year[c]	composite
Turbidity	NTU	eight/year[c]	composite
Fecal Coliform	#/100 mL	eight/year[c]	grab
BOD_5	mg/L	eight/year[c,d]	composite
Ethylene Glycol and Propylene Glycol[e]	mg/L	eight/year[c]	composite
Total Recoverable Copper	mg/L	eight/year[c]	composite
Total Recoverable Lead	mg/L	eight/year[c]	composite
Total Recoverable Zinc	mg/L	eight/year[c]	composite

[a] The Permittee may request a reduction in monitoring frequency for Outfall 006 after one year of monitoring. The Department may reduce the frequency to quarterly, semi-annually, or annually.

[b] Total Petroleum Hydrocarbons shall be measured using the NWTPH-D_x method or an equivalent method approved by the Department.

[c] The Permittee shall collect eight samples per year in the following manner: One sample shall be collected during the months of June-August. The remaining seven samples shall be collected during the remainder of the year with a minimum of one per quarter. One year from the permit modification effective date, stormwater Discharge Monitoring Reports for Outfalls 002, 005, 006 and 011 shall be submitted quarterly.

[d] BOD_5 monitoring at Outfall 005 shall occur, to the extent practicable, during a precipitation event that coincides with a runway deicing event in those months in which a runway deicing event occurs.

[e] Ethylene glycol and propylene glycol shall be measured monthly at Outfalls 002, 005, and 011 except for the months of June, July, and August. Glycol monitoring is not required at Outfall 006. Sampling shall occur, to the extent practicable, during a precipitation event that coincides with a deicing or anti-icing event.

S2. MONITORING REQUIREMENTS (CONTINUED)

2. The Permittee shall monitor the stormwater discharges at Outfalls 003, 004, 008, 009, 010, 014, and 015 according to the following schedule:

Parameter	Units	Minimum Sampling Frequency	Sample Type
TPH[a]	mg/L	annually	grab
TSS	mg/L	annually	composite
Turbidity	NTU	annually	composite
Fecal Coliform[b]	#/100 mL	annually	grab
Total Recoverable Copper	mg/L	annually	composite
Total Recoverable Lead	mg/L	annually	composite
Total Recoverable Zinc	mg/L	annually	composite
[a] Total Petroleum Hydrocarbons shall be measured using the NWTPH-D_x method or an equivalent method approved by the Department.			
[b] This monitoring requirement may be eliminated with Department approval if the Permittee can show that fecal coliform from human sources are not present.			

3. The Permittee shall monitor the stormwater discharges from Outfall 007, the Port Engineering Yard (Outfall 012) and the Taxi Yard (Outfall 013), according to the following schedule:

Parameter	Units	Minimum Sampling Frequency	Sample Type
TPH[a]	mg/L	semi-annually	grab
TSS	mg/L	semi-annually	composite
[a] Total Petroleum Hydrocarbons shall be measured using the NWTPH-D_x method or an equivalent method approved by the Department.			

4. The Permittee shall monitor the stormwater discharges from Outfall 003 and Outfall 007 according to the following schedule:

Parameter	Units	Minimum Sampling Frequency	Sample Type
Ethylene Glycol and Propylene Glycol	mg/L	Quarterly[a]	Grab[b]
Flow (Outfall 007)		Each bypass event	Report[c]
[a] Ethylene glycol and propylene glycol shall be measured at Outfalls 003 and 007 in the three quarters December – February, March – May, and September – November. Sampling shall occur during a precipitation event that coincides with a deicing/anti-icing event. For Outfall 003, samples may be taken during base-flow, snowmelt, or any precipitation event that coincides with a deicing/anti-icing event. This monitoring requirement may be eliminated after four sampling events at each outfall with Department approval.			
[b] Samples shall be collected during the first sixty (60) minutes of each discharge event. The Permittee shall request permission to use data gathered after the first sixty (60) minutes of the discharge if it is not possible to grab a sample in the first sixty (60) minutes.			
[c] The Permittee shall report when a bypass from the SDN-2 IWS pump station occurs at Outfall 007 by indicating "yes" on the Discharge Monitoring Report.			

S2. MONITORING REQUIREMENTS (CONTINUED)

C. Construction Stormwater/Dewatering Monitoring

1. The Permittee shall submit a monitoring plan for stormwater and construction dewatering discharges from construction projects required to have a Stormwater Pollution Prevention Plan in Special Condition S13 of this permit. The monitoring plan shall be submitted to the Department for review and approval at least thirty (30) days prior to the start of construction. The plan shall be deemed approved if Ecology does not respond to the plan at least five (5) days prior to the scheduled date of construction.

2. Monitoring Schedule for Construction Stormwater Discharges to Walker Creek and tributaries and Gilliam Creek and tributaries.

a. Special Condition S13.C.1.c. requires inspection of all on-site erosion and sediment control measures within 24 hours after any storm event of greater than 0.5 inches of precipitation per 24-hour period. In addition, the Permittee shall monitor turbidity and pH in any surface water discharge from construction sites within 24 hours after any storm event of greater than 0.5 inches of precipitation per 24-hour period. The storm events shall be measured by an on-site rain gauge. The monitoring method shall be by a portable turbidimeter and a pH meter following the prescribed maintenance, operating, and calibration procedures in the instruments instruction manuals. Alternatively, a grab sample can be analyzed by a laboratory accredited under the provisions of Accreditation of Environmental Laboratories, Chapter 173-50 WAC.

During each rain event the turbidimeter and pH meter shall also be used for the measurement of turbidity and pH at an agreed point upstream of the point of discharge to the receiving water and an agreed downstream point of the thorough mixing of the discharge and the receiving water.

If a visual sheen is observed, the Permittee shall sample for oil and grease.

Parameter	Units	Sample Point[1]	Minimum Sampling Frequency	Sample Type
Oil and Grease	mg/L	Point of Discharge	Each rain event	Grab
[1]Samples shall be collected from the outfall or an on-line stormwater drain access point nearest the outfall terminus.				

S2. MONITORING REQUIREMENTS (CONTINUED)

The MDL for oil and grease is 0.2 mg/L using trichlorotrifluoroethane extraction and gravimetric analysis using EPA Method 413.1. The quantitation level (QL) for oil and grease is 1.0 mg/L (5 x MDL). An equivalent method is Method 1664 using normal hexane (n-hexane) as the extraction solvent in place of 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113; Freon-113). An equivalent method is total petroleum hydrocarbons with a MDL of 0.1 mg/L using Gas Chromatography and Flame Ionization Detector (FID) and Method WTPH-Dx Diesel (WTPH-D) from the Washington State Department of Ecology Method WTPH-D. The quantitation level (QL) for TPH-Dx is 0.5 mg/L (5 x MDL).

b. Compliance Evaluation

Monitoring will be reviewed for compliance with WAC 173-201A. The Department will exercise its enforcement discretion in the event of noncompliance with these standards.

D. Deicing/Anti-icing Fluids Usage

All deicing and anti-icing events of either aircraft or runways shall be reported no later than June 1 of each year, and shall include the volumes of each type of deicing and anti-icing material used each day by each airline and the Permittee. Anti-icing means measures taken to prevent ice accumulation on the surface of the aircraft, airfield, or runway. Deicing means removing ice from the surface of the aircraft, airfield, or runway.

E. Annual Stormwater Monitoring Summary Report

On or before October 1 of each year, the Permittee shall submit a report to the Department summarizing the results of the stormwater monitoring conducted pursuant to Special Condition S2.B or S3.E of this permit during the preceding twelve (12) month period from July 1 through June 30.

The report shall present the analytical data, the Port's conclusions as to what is being learned from the data, and any new initiatives to be undertaken as part of the Stormwater Pollution Prevention Plan for Airport Operations required in Special Condition S12.

F. Annual Sanitary Sewer Discharge Summary Report

On or before January 15th of each year, the Permittee shall submit a report to the Department summarizing the following data for the previous calendar year:

S2. MONITORING REQUIREMENTS (CONTINUED)

1. Monthly average and maximum daily discharge flow rates for each waste stream; and

2. Quarterly oil and grease monitoring results for the rental car wash blowdown and equipment wash rack blowdown.

G. Sampling and Analytical Procedures

Samples and measurements taken to meet the requirements of this permit shall be representative of the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets, and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the water and wastewater monitoring requirements specified in this permit shall conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 or to the latest revision of *Standard Methods for the Examination of Water and Wastewater* (APHA), unless otherwise specified in this permit or approved in writing by the Department.

Ground water sampling shall conform to the latest protocols in the *Implementation Guidance for the Ground Water Quality Standards* (Ecology 1996).

H. Flow Measurement

Appropriate flow measurement devices and/or methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the quantity of monitored flows. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements are consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations and at a minimum frequency of at least one (1) calibration per year. Calibration records shall be maintained for at least three (3) years.

I. Laboratory Accreditation

All monitoring data required by the Department shall be prepared by a laboratory registered or accredited under the provisions of *Accreditation of Environmental Laboratories*, Chapter 173-50 WAC. Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement. Conductivity and pH shall be accredited if the laboratory must otherwise be registered or accredited.

S3. REPORTING AND RECORDKEEPING REQUIREMENTS

The Permittee shall monitor and report in accordance with the following conditions. The falsification of information submitted to the Department shall constitute a violation of the terms and conditions of this permit.

A. Reporting - Industrial Wastewater

The first monitoring period begins on the effective date of the permit. Monitoring results shall be submitted monthly. Monitoring data obtained during the previous month shall be summarized and reported on a form provided, or otherwise approved, by the Department, and be received no later than the 30th day of the month following the completed reporting period, unless otherwise specified in this permit. The report(s) shall be sent to the Department of Ecology, Northwest Regional Office, 3190 160th Avenue SE, Bellevue, Washington 98008-5452.

B. Reporting - Stormwater

The first monitoring period begins on the effective date of the permit. Monitoring results shall be submitted monthly, quarterly, semi-annually, or annually as required in Special Condition S2.B. Quarters shall be defined as: December - February, March - May, June - August, and September - November. Monitoring results obtained during the previous reporting period shall be reported on the forms provided, or otherwise approved, by the Department, and be received no later than the 30th day of the month following the completed reporting period, unless otherwise specified in this permit. The report(s) shall be sent to the Department of Ecology, Northwest Regional Office, 3190 160th Avenue SE, Bellevue, Washington 98008-5452.

All lab reports for metal parameters shall be submitted with the Discharge Monitoring Report. The following information shall be provided: sampling date, sample location, date of analysis, parameter name, CAS number, analytical method/number, method detection limit (MDL), lab practical quantitation limit (PQL), reporting units, and concentration detected.

C. Reporting – Construction Stormwater

- Monitoring results for construction stormwater discharges to Walker Creek and tributaries and Gilliam Creek and tributaries shall be submitted every other month beginning July 1, 2001.

D. Records Retention

The Permittee shall retain records of all monitoring information for a minimum of three (3) years. Such information shall include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by the Director.

S3. REPORTING AND RECORDKEEPING REQUIREMENTS (CONTINUED)

E. Recording of Results

For each measurement or sample taken, the Permittee shall record the following information: (1) the date, exact place, method, and time of sampling; (2) the individual who performed the sampling or measurement; (3) the dates the analyses were performed; (4) who performed the analyses; (5) the analytical techniques or methods used; and (6) the results of all analyses.

F. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by this permit using the test procedures and the locations specified by Special Condition S2 of this permit, then the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Permittee's self-monitoring reports.

If the Permittee performs validated water quality monitoring or sediment monitoring using methods and/or locations other than those specified in Special Condition S2, the Permittee shall include notice of this monitoring with the Discharge Monitoring Report for the month in which the monitoring data is received and must provide the data to the Department upon request. MTCA monitoring is excluded from reporting requirements under this permit. For purposes of this condition, the term "sediment" means settled particulate matter located in the predominantly biologically active aquatic zone, or exposed to the water column. Sediment does not include vactor waste solids or street sweepings.

G. Noncompliance Notification

In the event the Permittee is unable to comply with any of the permit terms and conditions due to any cause, the Permittee shall:

1. Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the violation, and correct the problem;

2. Repeat sampling and analysis of any violation and submit the results to the Department within thirty (30) days after becoming aware of the violation. Repeat sampling and analysis is not required for any parameter that will be sampled within thirty (30) days to satisfy the requirements of Special Condition S2;

S3. REPORTING AND RECORDKEEPING REQUIREMENTS (CONTINUED)

3. Notify the Department of the failure to comply. Spill events to waters of the state shall be reported immediately to the Department's 24-Hour Spill Response Team at (425) 649-7000 and to the NPDES permit manager within 24 hours of becoming aware of the spill. Spills of less than or equal to 20 gallons of petroleum products that are contained by the IWS do not need to be reported. All other spills of substances not permitted to be discharged to the IWS, which are contained by the IWS, shall be reported monthly to the NPDES permit manager, but not the Spill Response Team. All other noncompliance shall be reported to the NPDES permit manager within 24 hours upon becoming aware of the noncompliance; and

4. Except as specified in subparagraph S3.F(3) above, submit a detailed, written report to the Department within thirty (30) days (five [5] days for spills, upsets, and bypasses) unless requested earlier by the Department. The report should describe the nature of the violation, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of the resampling, and any other pertinent information.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

S4. COMPLIANCE SCHEDULE

The Permittee shall submit an addendum to the Industrial Wastewater Treatment AKART Engineering Report to the Department within two (2) months of the permit effective date for review and approval.

The engineering report shall be consistent with all the requirements of chapter 173-240 WAC. The AKART engineering report shall review all known, available, and reasonable methods of prevention and treatment, shall quantify the expected concentration of pollutants from each identified treatment, and shall detail the cost of each identified option. Fire control foam disposal shall be considered in the analysis. The engineering report shall also include a schedule for project design, construction, and startup.

The Permittee shall then submit a preliminary design report, plans and specifications to the Department for review and approval, as required by chapter 173-240 WAC.

The Permittee shall take all available and reasonable means to implement the AKART determination in the shortest practicable time, but no later than June 30, 2004.

S5. OPERATION AND MAINTENANCE

The Permittee shall at all times be responsible for the proper operation and maintenance of any facilities or systems of control installed to achieve compliance with the terms and conditions of the permit.

A. Industrial Wastewater System (IWS) Operations and Maintenance Manual

The existing IWS O&M Manual shall be reviewed by the Permittee at least annually and the Permittee shall confirm this review by letter to the Department. Substantial changes or updates to the O&M Manual shall be submitted to the Department whenever they are incorporated into the Manual.

The O&M Manual shall be kept available at the permitted facility and all operators are responsible for being familiar with and using this manual.

The O&M Manual shall include, but is not limited to, the following:

1. A baseline operating condition which describes the operating parameters and procedures used to meet the effluent limitations of Special Condition S1.

2. In the event of flow rates which are below the baseline levels used to establish these limitations, the plan shall describe the operating procedures and conditions needed to maintain design treatment efficiency. The monitoring and reporting shall be described in the manual.

3. In the event of an upset due to plant maintenance activities, severe stormwater events, cold weather operation (below 35 °F), summer algae blooms, start ups or shut downs, or other causes, the plan shall describe the operating procedures and conditions employed to mitigate the upset. The monitoring and reporting shall be described in the manual.

4. A description of any regularly scheduled maintenance or repair activities at the IWTP which would affect the volume or character of the wastes discharged from the wastewater treatment system and a plan for monitoring and treating/controlling the discharge of maintenance-related materials (such as cleaners, degreasers, solvents, etc.).

5. A description of the regularly scheduled inspection and maintenance program for the IWS conveyance system, including provisions for handling of solids or wastewater removed during maintenance activities.

B. Bypass Procedures

The Permittee shall notify the Department of any spill, overflow, or bypass from any portion of the collection or treatment system immediately at the time the Permittee becomes aware of the spill, overflow, or bypass.

S5. OPERATION AND MAINTENANCE (CONTINUED)

The bypass of wastes from any portion of the treatment system to surface water is prohibited unless one of the following conditions (1, 2, or 3) applies:

1. Unavoidable Bypass -- Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

   If the resulting bypass from any portion of the treatment system results in noncompliance with this permit, the Permittee shall notify the Department in accordance with Special Condition S3.F "Noncompliance Notification."

2. Anticipated Bypass that has the Potential to Violate Permit Limits or Conditions -- Bypass is authorized by an administrative order issued by the Department. The Permittee shall apply to the Department for the administrative order at least thirty (30) days before the planned date of bypass. The written submission shall contain: (1) a description of the bypass and its cause; (2) an analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing; (3) a cost-effectiveness analysis of alternatives including comparative resource damage assessment; (4) the minimum and maximum duration of bypass under each alternative; (5) a recommendation as to the preferred alternative for conducting the bypass; (6) the projected date of bypass initiation; (7) a statement of compliance with SEPA; (8) a request for a water quality modification, as provided for in WAC 173-201A-110, and (9) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

   For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above shall be considered during preparation of the engineering report or plans and specifications and shall be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

   The Department will consider the following prior to issuing an administrative order:

   a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of the permit.

S5. OPERATION AND MAINTENANCE (CONTINUED)

b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.

c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, the Department will approve or deny the request. The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by the Department under RCW 90.48.120.

3. Bypass for Essential Maintenance Without the Potential to Cause Violation of Permit Limits or Conditions – Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of the permit, or adversely impact public health as determined by the Department prior to the bypass.

An overflow of untreated industrial wastewater from the Industrial Wastewater System collection system or lagoons due to stormwater flows in excess of the design criteria will not be considered a bypass and will not constitute a violation of this permit if the Department determines that at the time the overflow occurred the Industrial Wastewater Facility was operated in compliance with the approved Operations and Maintenance Manual. The Industrial Wastewater Facility includes the Industrial Wastewater Treatment Plant (IWTP), the Industrial Wastewater System Lagoons, and the equipment used to collect, treat, and dispose of industrial wastewater.

S6. SOLID WASTE DISPOSAL

A. Solid Waste Handling

The Permittee shall handle and dispose of all solid waste material in such a manner as to prevent its entry into state ground or surface water.

B. Leachate

The Permittee shall not allow leachate from its solid waste material to enter state waters without providing all known, available, and reasonable methods of prevention and treatment, nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Ground Water Quality Standards, Chapter 173-200 WAC.

S7. SPILL PLAN

The Permittee shall submit to the Department an update to the existing Spill Control Plan within twelve (12) months of the effective date of this permit.

The updated spill control plan shall include the following:

- A description of the reporting system which will be used to alert responsible managers and legal authorities in the event of a spill.
- A description of preventive measures and facilities (including an overall facility plot showing drainage patterns) which prevent, contain, or treat spills of these materials.
- A list of all oil, chemicals, and hazardous wastes used, processed, or stored by the Permittee which may be spilled into state waters.

For the purpose of meeting this requirement, plans and manuals required by 40 CFR Part 112 and contingency plans required by Chapter 173-303 WAC may be submitted.

S8. ACUTE TOXICITY - INDUSTRIAL WASTEWATER

A. Effluent Characterization

The Permittee shall conduct acute toxicity testing on the IWS final effluent to determine the presence and amount of acute (lethal) toxicity. The three acute toxicity tests listed below shall be conducted on each sample taken for effluent characterization.

Effluent characterization for acute toxicity shall be quarterly for one (1) year. Acute toxicity testing shall follow protocols, monitoring requirements, and quality assurance/quality control procedures specified in this section. A dilution series consisting of a minimum of five concentrations and a control shall be used to estimate the concentration lethal to 50% of the organisms (LC_{50}). The percent survival in 100% effluent shall also be reported.

Testing shall begin within sixty (60) days after the startup date of the new IWS Waste Treatment System required in Special Condition S4. A written report shall be submitted to the Department within sixty (60) days after the sample date. A final effluent characterization summary report shall be submitted to the Department within ninety (90) days after the last monitoring test results are final. This summary report shall include a tabulated summary of the individual test results and any information on sources of toxicity, toxicity source control, correlation with effluent data, and toxicity treatability which is developed during the period of testing.

Acute toxicity tests shall be conducted with the following species and protocols:

1) Topsmelt or Silverside minnow, *Atherinops affinis* or *Menidia beryllina* (96-hour static-renewal test, method: EPA/600/4-90/027F)

S8. ACUTE TOXICITY - INDUSTRIAL WASTEWATER (CONTINUED)

2) Mysid shrimp, *Holmesimysis costata* or *Mysidopsis bahia* (48-hour static test, method: EPA/600/4-90/027F).

B. Effluent Limit for Acute Toxicity

The Permittee has an effluent limit for acute toxicity if, after completing one year of effluent characterization, either:

1) The median survival of any species in 100% effluent is below 80%, or

2) Any one test of any species exhibits less than 65% survival in 100% effluent, and the test meets the Department's criteria for test acceptability and is not considered anomalous by the Department.

If an effluent limit for acute toxicity is required by subsection B at the end of one year of effluent characterization, the Permittee shall immediately complete all applicable requirements in subsections C, D, and F.

If no effluent limit is required by subsection B at the end of one year of effluent characterization, then the Permittee shall complete all applicable requirements in subsections E and F.

The effluent limit for acute toxicity is no acute toxicity detected in a test concentration representing the acute critical effluent concentration (ACEC).

The ACEC means the maximum concentration of effluent during critical conditions at the boundary of the zone of acute criteria exceedance assigned pursuant to WAC 173-201A-100. The zone of acute criteria exceedance will be established per Special Condition S1.C of this permit. The ACEC shall be defined by the Department through a major permit modification.

If the Permittee has an effluent limit for acute toxicity and the ACEC is not known, then effluent characterization for acute toxicity shall continue until the time an ACEC is known. Effluent characterization shall be continued until an ACEC has been determined and shall be performed using each one of the tests listed in subsection A on a rotating basis. When an ACEC has been determined, the Permittee shall immediately complete all applicable requirements in subsections C, D, and F.

If no effluent limit is required by subsection B at the end of one year of effluent characterization, then the Permittee shall stop effluent characterization and begin to conduct the activities in subsection E even if the ACEC is unknown.

In the event of failure to pass the test described in subsection C of this section for compliance with the effluent limit for acute toxicity, the Permittee is considered to be in compliance with all permit requirements for acute whole effluent toxicity as long as the requirements in subsection D are being met to the satisfaction of the Department.

S8. ACUTE TOXICITY - INDUSTRIAL WASTEWATER (CONTINUED)

C. Monitoring for Compliance With an Effluent Limit for Acute Toxicity

Monitoring to determine compliance with the effluent limit shall be conducted monthly for the remainder of the permit term using each of the species listed in subsection A above on a rotating basis and performed using at a minimum 100% effluent, the ACEC, and a control. The Permittee shall schedule the toxicity tests in the order listed in the permit unless the Department notifies the Permittee in writing of another species rotation schedule. The percent survival in 100% effluent shall be reported for all compliance monitoring.

The Permittee may petition for less frequent testing if both species demonstrate low sensitivity. If one species demonstrates more sensitivity, the Permittee may petition to limit testing to this species and discontinue the rotational testing schedule between species.

Compliance with the effluent limit for acute toxicity means no statistically significant difference in survival between the control and the test concentration representing the ACEC. The Permittee shall immediately implement subsection D if any acute toxicity test conducted for compliance monitoring determines a statistically significant difference in survival between the control and the ACEC using hypothesis testing at the 0.05 level of significance (Appendix H, EPA/600/4-89/001). If the difference in survival between the control and the ACEC is less than 10%, the hypothesis test shall be conducted at the 0.01 level of significance.

D. Response to Noncompliance With an Effluent Limit for Acute Toxicity

If the Permittee violates the acute toxicity limit in subsection B, the Permittee shall begin additional compliance monitoring within one week from the time of receiving the test results. This additional monitoring shall be conducted weekly for four consecutive weeks using the same test and species as the failed compliance test. For intermittent discharges, testing shall be conducted on the next four discharge events using the same test and species as the failed compliance test. Testing shall determine the LC_{50} and effluent limit compliance. The discharger shall return to the original monitoring frequency in subsection C after completion of the additional compliance monitoring.

If the Permittee believes that a test indicating noncompliance will be identified by the Department as an anomalous test result, the Permittee may notify the Department that the compliance test result might be anomalous and that the Permittee intends to take only one additional sample for toxicity testing and wait for notification from the Department before completing the additional monitoring required in this subsection. The notification to the Department shall accompany the report of the compliance test result and identify the reason for considering the compliance test result to be anomalous. The Permittee shall complete all of the additional monitoring required in this subsection as soon as possible after

S8. ACUTE TOXICITY - INDUSTRIAL WASTEWATER (CONTINUED)

notification by the Department that the compliance test result was not anomalous. If the one additional sample fails to comply with the effluent limit for acute toxicity, then the Permittee shall proceed without delay to complete all of the additional monitoring required in this subsection. The one additional test result shall replace the compliance test result upon determination by the Department that the compliance test result was anomalous.

If all of the additional compliance monitoring conducted in accordance with this subsection complies with the permit limit, the Permittee shall search all pertinent and recent facility records (operating records, monitoring results, inspection records, spill reports, weather records, production records, raw material purchases, pretreatment records, etc.) and submit a report to the Department on possible causes and preventive measures for the transient toxicity event which triggered the additional compliance monitoring.

If toxicity occurs in violation of the acute toxicity limit during the additional compliance monitoring, the Permittee shall submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to the Department within sixty (60) days after test results are final. The TI/RE plan shall be based on WAC 173-205-100(2) and shall be implemented in accordance with WAC 173-205-100(3).

E. Monitoring When There Is No Permit Limit for Acute Toxicity

If the IWS effluent has been characterized as specified in subsection A and no permit limit for acute toxicity is required, then the Permittee shall test final effluent once in the last summer and once in the last winter prior to submission of the application for permit renewal. All species used in the initial acute effluent characterization or substitutes approved by the Department shall be used and results submitted to the Department as a part of the permit renewal application process. If less than one summer and winter are available between final characterization and the due date of the permit renewal application, the Permittee shall contact the Department for clarification of further effluent WET testing.

F. Sampling and Reporting Requirements

1. All reports for effluent characterization or compliance monitoring shall be submitted in accordance with the most recent version of Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* in regards to format and content. Reports shall contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data on floppy disk for electronic entry into the Department's database, then the Permittee shall send the disk to the Department along with the test report, bench sheets, and reference toxicant results.

S8. ACUTE TOXICITY - INDUSTRIAL WASTEWATER (CONTINUED)

2. Testing shall be conducted on composite effluent samples. Samples taken for toxicity testing shall be cooled to 4 degrees Celsius while being collected and shall be sent to the lab immediately upon completion. The lab shall begin the toxicity testing as soon as possible but no later than 36 hours after sampling was ended.

3. All samples and test solutions for toxicity testing shall have water quality measurements as specified in Department of Ecology's Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof.

4. All toxicity tests shall meet quality assurance criteria and test conditions in the most recent versions of the EPA manual listed in subsection A and the Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If test results are determined to be invalid or anomalous by the Department, testing shall be repeated with freshly collected effluent.

5. Control water and dilution water shall be laboratory water meeting the requirements of the EPA manual listed in subsection A or pristine natural water of sufficient quality for good control performance.

6. The whole effluent toxicity tests shall be run on an unmodified sample of final effluent, except modifications required by testing protocol.

7. The Permittee may choose to conduct a full dilution series test during compliance monitoring in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the ACEC, if known.

8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing and do not comply with the acute statistical power standard of 29% as defined in WAC 173-205-020 must be repeated on a fresh sample with an increased number of replicates to increase the power.

S9. CHRONIC TOXICITY - INDUSTRIAL WASTEWATER

A. Effluent Characterization

The Permittee shall conduct chronic toxicity testing on the IWS final effluent. The three chronic toxicity tests listed below shall be conducted on each sample taken for effluent characterization.

Testing shall begin within sixty (60) days after the startup date of the new IWS Waste Treatment System required in Special Condition S4. A written report shall be submitted to the Department within sixty (60) days after the sample date. A

S9. CHRONIC TOXICITY - INDUSTRIAL WASTEWATER (CONTINUED)

final effluent characterization summary report shall be submitted to the Department within ninety (90) days after the last monitoring test results are final. This summary report shall include a tabulated summary of the individual test results and any information on sources of toxicity, toxicity source control, correlation with effluent data, and toxicity treatability which is developed during the period of testing.

Effluent testing for chronic toxicity shall be conducted quarterly for one (1) year or until an acute critical effluent concentration (ACEC) is determined, if that determination takes longer than one year (see S8.C, Effluent Limit for Acute Toxicity, for a definition of the ACEC). The Permittee shall conduct chronic toxicity testing during effluent characterization on a series of at least five concentrations of effluent in order to determine appropriate point estimates. The chronic no observed effects concentration (NOEC) will also be determined for comparison to the ACEC when the ACEC is known. If the ACEC is determined before the one year of characterization is over, the Permittee shall include the ACEC in the concentration series of all subsequent tests and compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001. If the ACEC is unknown at the end of one year of effluent characterization, the Permittee shall continue the effluent characterization until an ACEC has been determined. Toxicity testing conducted during an effluent characterization extended past one year until an ACEC has been determined shall be performed using each one of the tests listed below on a rotating basis.

Chronic toxicity tests shall be conducted with the following three species and the most recent version of the following protocols:

Saltwater Chronic Toxicity Test Species		Method
Topsmelt or Silverside minnow	*Atherinops affinis* or *Menidia beryllina*	EPA/600/R-95/136 or EPA/600/4-91/003
Mysid shrimp	*Holmesimysis costata* or *Mysidopsis bahia*	EPA/600/R-95/136 or EPA/600/4-91/003
Pacific oyster or Mussel	*Crassostrea gigas or Mytilus sp.*	EPA/600/R-95/136

The Permittee shall use the West Coast fish (Topsmelt, *Atherinops affinis*) and Mysid (*Holmesimysis costata*) for toxicity testing unless the lab cannot obtain a sufficient quantity of a West Coast species in good condition in which case the East Coast fish (Silverside minnow, *Menidia beryllina*) or Mysid (*Mysidopsis bahia*) may be substituted.

S9. CHRONIC TOXICITY - INDUSTRIAL WASTEWATER (CONTINUED)

The Pacific oyster and mussel tests shall be run in accordance with EPA/600/R-95/136 and the bivalve development test conditions in the Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof.

B. Effluent Limit for Chronic Toxicity

After completion of effluent characterization, the Permittee has an effluent limit for chronic toxicity if any test conducted for effluent characterization shows a significant difference between the control and the ACEC at the 0.05 level of significance using hypothesis testing (Appendix H, EPA/600/4-89/001) and shall complete all applicable requirements in subsections C, D, and F.

If no significant difference is shown between the ACEC and the control in any of the chronic toxicity tests, the Permittee has no effluent limit for chronic toxicity and only subsections E and F apply.

The effluent limit for chronic toxicity is no toxicity detected in a test concentration representing the chronic critical effluent concentration (CCEC).

The CCEC means the maximum concentration of effluent allowable at the boundary of the mixing zone assigned in Special Condition S1.C of this permit. The CCEC shall be defined by the Department upon approval of the Engineering Report required in Special Condition S4.

In the event of failure to pass the test described in subsection C of this section for compliance with the effluent limit for chronic toxicity, the Permittee is considered to be in compliance with all permit requirements for chronic whole effluent toxicity as long as the requirements in subsection D are being met to the satisfaction of the Department.

C. Monitoring for Compliance With an Effluent Limit for Chronic Toxicity

Monitoring to determine compliance with the effluent limit shall be conducted monthly for the remainder of the permit term using each of the species listed in subsection A above on a rotating basis and performed using at a minimum the CCEC, the ACEC, and a control. The Permittee shall schedule the toxicity tests in the order listed in the permit unless the Department notifies the Permittee in writing of another species rotation schedule.

The Permittee may petition for less frequent testing if all species demonstrate low sensitivity. If one species demonstrates more sensitivity, the Permittee may petition to limit testing to this species and discontinue the rotational testing schedule between species.

S9. CHRONIC TOXICITY - INDUSTRIAL WASTEWATER (CONTINUED)

Compliance with the effluent limit for chronic toxicity means no statistically significant difference in response between the control and the test concentration representing the CCEC. The Permittee shall immediately implement subsection D if any chronic toxicity test conducted for compliance monitoring determines a statistically significant difference in response between the control and the CCEC using hypothesis testing at the 0.05 level of significance (Appendix H, EPA/600/4-89/001). If the difference in response between the control and the CCEC is less than 20%, the hypothesis test shall be conducted at the 0.01 level of significance.

In order to establish whether the chronic toxicity limit is eligible for removal from future permits, the Permittee shall also conduct this same hypothesis test (Appendix H, EPA/600/4-89/001) to determine if a statistically significant difference in response exists between the ACEC and the control.

D. Response to Noncompliance With an Effluent Limit for Chronic Toxicity

If a toxicity test conducted for compliance monitoring under subsection C determines a statistically significant difference in response between the CCEC and the control, the Permittee shall begin additional compliance monitoring within one week from the time of receiving the test results. This additional monitoring shall be conducted monthly for three (3) consecutive months using the same test and species as the failed compliance test. Testing shall be conducted using a series of at least five effluent concentrations and a control in order to be able to determine appropriate point estimates. One of these effluent concentrations shall equal the CCEC and be compared statistically to the nontoxic control in order to determine compliance with the effluent limit for chronic toxicity as described in subsection C. The discharger shall return to the original monitoring frequency in subsection C after completion of the additional compliance monitoring.

If the Permittee believes that a test indicating noncompliance will be identified by the Department as an anomalous test result, the Permittee may notify the Department that the compliance test result might be anomalous and that the Permittee intends to take only one additional sample for toxicity testing and wait for notification from the Department before completing the additional monitoring required in this subsection. The notification to the Department shall accompany the report of the compliance test result and identify the reason for considering the compliance test result to be anomalous. The Permittee shall complete all of the additional monitoring required in this subsection as soon as possible after notification by the Department that the compliance test result was not anomalous. If the one additional sample fails to comply with the effluent limit for chronic toxicity, then the Permittee shall proceed without delay to complete all of the additional monitoring required in this subsection. The one additional test result shall replace the compliance test result upon determination by the Department that the compliance test result was anomalous.

S9. CHRONIC TOXICITY - INDUSTRIAL WASTEWATER (CONTINUED)

If all of the additional compliance monitoring conducted in accordance with this subsection complies with the permit limit, the Permittee shall search all pertinent and recent facility records (operating records, monitoring results, inspection records, spill reports, weather records, production records, raw material purchases, pretreatment records, etc.) and submit a report to the Department on possible causes and preventive measures for the transient toxicity event which triggered the additional compliance monitoring.

If toxicity occurs in violation of the chronic toxicity limit during the additional compliance monitoring, the Permittee shall submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to the Department within sixty (60) days after test results are final. The TI/RE plan shall be based on WAC 173-205-100(2) and shall be implemented in accordance with WAC 173-205-100(3).

E. Monitoring When There Is No Permit Limit for Chronic Toxicity

If the IWS effluent has been characterized as specified in subsection A and no permit limit for acute toxicity is required, then the Permittee shall test final effluent once in the last summer and once in the last winter prior to submission of the application for permit renewal. All species used in the initial chronic effluent characterization or substitutes approved by the Department shall be used and results submitted to the Department as a part of the permit renewal application process. If less than one summer and winter are available between final characterization and the due date of the permit renewal application, the Permittee shall contact the Department for clarification of further effluent WET testing.

F. Sampling and Reporting Requirements

1. All reports for effluent characterization or compliance monitoring shall be submitted in accordance with the most recent version of Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* in regards to format and content. Reports shall contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data on floppy disk for electronic entry into the Department's database, then the Permittee shall send the disk to the Department along with the test report, bench sheets, and reference toxicant results.

2. Testing shall be conducted on composite effluent samples. Samples taken for toxicity testing shall be cooled to 4 degrees Celsius while being collected and shall be sent to the lab immediately upon completion. The lab shall begin the toxicity testing as soon as possible but no later than 36 hours after sampling was ended.

S9. CHRONIC TOXICITY - INDUSTRIAL WASTEWATER (CONTINUED)

3. All samples and test solutions for toxicity testing shall have water quality measurements as specified in Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof.

4. All toxicity tests shall meet quality assurance criteria and test conditions in the most recent versions of the EPA manual listed in subsection A. and the Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If test results are determined to be invalid or anomalous by the Department, testing shall be repeated with freshly collected effluent.

5. Control water and dilution water shall be laboratory water meeting the requirements of the EPA manual listed in subsection A or pristine natural water of sufficient quality for good control performance.

6. The whole effluent toxicity tests shall be run on an unmodified sample of final effluent, except modifications required by testing protocol.

7. The Permittee may choose to conduct a full dilution series test during compliance monitoring in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the ACEC and the CCEC.

8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing and do not comply with the chronic statistical power standard of 39% as defined in WAC 173-205-020 must be repeated on a fresh sample with an increased number of replicates to increase the power.

S10. ACUTE TOXICITY - STORMWATER

A. Effluent Characterization

The Permittee shall conduct acute toxicity testing on stormwater to determine the presence and amount of acute (lethal) toxicity. The two acute toxicity tests listed below shall be conducted on each sample taken for effluent characterization.

Effluent characterization for acute toxicity shall be conducted twice at each of the following outfalls: Outfall 002, 005, 006, and 011. Alternative outfalls with similar drainage basin characteristics may be substituted with Department's approval. Acute toxicity testing shall follow protocols, monitoring requirements, and quality assurance/quality control procedures specified in this section. A dilution series consisting of a minimum of five concentrations and a control shall be used to estimate the concentration lethal to 50% of the organisms (LC_{50}). The percent survival in 100% effluent shall also be reported.

S9. CHRONIC TOXICITY - INDUSTRIAL WASTEWATER (CONTINUED)

Testing shall be completed within one (1) year of the permit effective date. A written report shall be submitted to the Department within sixty (60) days after each sample date. A final effluent characterization summary report shall be submitted to the Department within ninety (90) days after the last monitoring test results are final. This summary report shall include a tabulated summary of the individual test results and any information on sources of toxicity, toxicity source control, correlation with effluent data, and toxicity treatability which is developed during the period of testing.

Acute toxicity tests shall be conducted with the following species and protocols:

1. Fathead minnow, *Pimephales promelas* (96-hour static-renewal test, method: EPA/600/4-90/027F)

2. Daphnid, *Ceriodaphnia dubia*, *Daphnia pulex*, or *Daphnia magna* (48-hour static test, method: EPA/600/4-90/027F). The Permittee shall choose one of the three species and use it consistently throughout effluent characterization.

B. Sampling and Reporting Requirements

1. All reports for effluent characterization shall be submitted in accordance with the most recent version of Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* in regards to format and content. Reports shall contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data on floppy disk for electronic entry into the Department's database, then the Permittee shall send the disk to the Department along with the test report, bench sheets, and reference toxicant results.

2. Testing shall be conducted on composite stormwater samples. Composite samples shall be taken over the first one-inch of the storm event or the entire storm event if the total rainfall is less than one inch. Samples taken for toxicity testing shall be cooled to 4 degrees Celsius while being collected and shall be sent to the lab immediately upon completion. The lab shall begin the toxicity testing as soon as possible but no later than 36 hours after sampling was ended.

3. All samples and test solutions for toxicity testing shall have water quality measurements as specified in Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof.

S10. ACUTE TOXICITY - STORMWATER (CONTINUED)

4. All toxicity tests shall meet quality assurance criteria and test conditions in the most recent versions of the EPA manual listed in subsection A. and the Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If test results are determined to be invalid or anomalous by the Department, testing shall be repeated with freshly collected effluent.

5. Control water and dilution water shall be laboratory water meeting the requirements of the EPA manual listed in subsection A or pristine natural water of sufficient quality for good control performance.

6. The whole effluent toxicity tests shall be run on an unmodified sample of final effluent, except modifications required by testing protocol.

7. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing and do not comply with the acute statistical power standard of 29% as defined in WAC 173-205-020 must be repeated on a fresh sample with an increased number of replicates to increase the power.

S11. SEDIMENT MONITORING (MARINE)

A. Sediment Sampling and Analysis Plan

The Permittee shall submit to the Department for review and approval a Sediment Sampling and Analysis Plan for sediment monitoring no later than one (1) year after permit effective. The purpose of the plan is to re-characterize sediment quality in the vicinity of Outfall 001. The Permittee shall follow the guidance provided in the Department of Ecology's Sediment Source Control Standards User Manual, Appendix B: Sediment Sampling and Analysis Plan (1995).

The Permittee may either cooperate with the Midway Sewer District to perform this baseline study or conduct its own study.

B. Sediment Data Report

Following Department approval of the Sediment Sampling and Analysis Plan, sediments will be collected and analyzed. The Permittee shall submit to the Department a Sediment Data Report containing the results of the sediment sampling and analysis within three (3) years after permit effective. The Sediment Data Report shall conform with the approved Sampling and Analysis Plan.

S12. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR AIRPORT OPERATIONS

The Permittee shall continue to maintain the existing SWPPP in accordance with the relevant and appropriate requirements of this special condition, including, but not limited to, maintaining a Pollution Prevention Team, self-inspections, annual review of the SWPPP, and updates as necessary, employee training, and recordkeeping.

A. Objectives

1. To eliminate the discharges of unpermitted industrial wastewater, domestic wastewater, non-contact cooling water, or other illicit discharges to the storm drainage system;

2. To implement and maintain Best Management Practices (BMPs) to identify, reduce, eliminate, and/or prevent the discharge of stormwater pollutants;

3. To prevent violations of water quality, ground water quality, or sediment management standards; and

4. To prevent adverse water quality impacts on beneficial uses of the receiving water by controlling peak rates and volumes of stormwater runoff at the Permittee's outfalls and downstream of the outfalls.

B. General Requirements

1. Submission and Retention

The Permittee shall submit an updated SWPPP to the Department for review and comment at least twice during the term of this permit. An updated SWPPP shall be submitted no later than November 30, 1998, and again with the application for permit renewal required in General Condition G7. The Permittee shall include an evaluation of whether measures to reduce pollutant loadings identified in the SWPPP are adequate and properly implemented in accordance with the terms of the permit or whether additional controls are needed. The evaluation shall specifically include, but is not limited to, fecal coliform, copper, lead, and zinc. The updated SWPPP shall include a summary of the results of the inspections required in subsection C, any incidents of noncompliance, and a certification, in accordance with General Condition G1, that the facility is in compliance with the plan.

The Permittee shall also submit that portion of the SWPPP which addresses the discharge to the City of SeaTac stormwater system to the City of SeaTac if it is modified.

The SWPPP shall be retained on-site or within reasonable access to the site.

S12. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR AIRPORT OPERATIONS (CONTINUED)

2. Modifications

   a. The Permittee shall modify the SWPPP whenever there is an alteration of airfield facilities or their operation or maintenance which causes the SWPPP to be less effective in controlling pollutants.

   b. Whenever a self-inspection reveals that the description of potential pollutant sources or the pollution prevention measures and controls identified in the SWPPP are inadequate, due to the discharge of, or the potential to discharge, a significant amount of pollutant, the SWPPP shall be modified, as appropriate, within two (2) weeks of such inspection for noncapital BMPs, and within six (6) months of such inspection for capital BMPs. The proposed capital modifications shall be submitted to the Department at least thirty (30) days in advance of implementing the proposed changes in the plan unless the Department approves immediate implementation. The Permittee shall provide for implementation of any modifications to the SWPPP in a timely manner.

3. The Permittee may incorporate applicable portions of plans prepared for other purposes. Plans or portions of plans incorporated into a SWPPP become enforceable requirements of this permit. If other plans are referenced in the SWPPP, they must be made available per the requirements of Special Condition S3.G.

4. The Permittee shall prepare the SWPPP in accordance with the guidance provided in the *Stormwater Pollution Prevention Planning for Industrial Facilities*. The plan shall contain the following elements:

   a. Assessment and description of existing and potential pollutant sources,

   b. A description of selected operational BMPs,

   c. A description of selected source-control BMPs,

   d. A description of selected erosion and sediment control BMPs,

   e. A description of selected treatment BMPs, and

   f. An implementation schedule.

5. Applicability of Current and Future Editions of the Stormwater Management Manual for the Puget Sound Basin (SWMM):

S12. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR AIRPORT OPERATIONS (CONTINUED)

BMPs shall be selected from the most recent published edition of the SWMM, or other manuals determined to be equivalent by the Department, available at least one hundred twenty (120) days before the selection of the BMPs. The Permittee may develop site-specific BMPs that are appropriate for airport industrial activities with approval of the Department.

C. Implementation

The Permittee shall conduct at least four inspections per year: three during the wet season (October 1 - June 30) and one during the dry season (July 1 - September 30).

1. The wet season inspections shall be conducted during a rainfall event by personnel named in the Stormwater Pollution Prevention Plan (SWPPP) to verify that the description of potential pollutant sources required under this permit is accurate; the site map as required in the SWPPP has been updated or otherwise modified to reflect current conditions; and the controls to reduce pollutants in stormwater discharges associated with industrial activity identified in the SWPPP are being implemented and are adequate. The wet-weather inspections shall include observations of the presence of floating materials, suspended solids, oil and grease, discolorations, turbidity, odor, etc., in the stormwater discharges.

2. The dry season inspection shall be conducted by personnel named in the SWPPP. The dry season inspection shall determine the presence of unpermitted non-stormwater discharges such as domestic wastewater, non-contact cooling water, or industrial wastewater to the stormwater drainage system. If an unpermitted, non-stormwater discharge is discovered, the Permittee shall immediately notify the Department.

S13. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION ACTIVITIES

A SWPPP for construction activity, including construction dewatering, shall be prepared and implemented prior to the commencement of any construction activity which disturbs five (5) or more acres of total land area (or other minimum land area to be determined by federal regulation). Construction activities included in this requirement include clearing, grading, filling, and excavation activities except operations that result in the disturbance of less than five acres of total land area which are not part of a larger common plan of development or sale. For construction projects that discharge solely to ground water, the SWPPP for construction activities shall be protective of ground water quality. With approval of the Department, a SWPPP shall not be required for construction projects that discharge to the IWS.

S13. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION ACTIVITIES (CONTINUED)

A. Objectives

1. To implement Best Management Practices (BMPs) to minimize erosion and sediments from rainfall runoff at construction sites, and to identify, reduce, eliminate, or prevent the pollution of stormwater.

2. To prevent violations of surface water quality, ground water quality, or sediment management standards.

3. To prevent, during the construction phase, adverse water quality impacts including impacts on beneficial uses of the receiving water by controlling peak rates and volumes of stormwater runoff at the Permittee's outfalls and downstream of the outfalls.

4. To eliminate the discharges of unpermitted process wastewater, domestic wastewater, illicit discharges, and non-contact cooling water to stormwater drainage systems and surface waters of the state.

B. General Requirements

1. The Permittee shall be responsible for the implementation of a SWPPP. The Erosion and Sediment Control Plan shall be attached to bid packages when seeking contractors to allow the contractor sufficient time to plan implementation. At construction sites for which a lease, easement, or other use agreement has been obtained from the Permittee, the Permittee shall be responsible for the implementation of a SWPPP.

2. The Permittee shall implement procedures for reviewing the SWPPP with contractors and subcontractors prior to initiating construction activities. The Permittee shall implement procedures for addressing changes in plans and construction activities and resolving disagreements on the interpretation of the SWPPP.

3. The Permittee shall designate a contact person who will be available 24 hours a day to respond to emergencies, and to inquiries or directives from the Department. The contact person shall have authority over the SWPPP implementation. For construction of projects identified in the Proposed Master Plan Update, the Permittee shall establish and fund an independent qualified construction pollution control officer to advise on and determine compliance with applicable water quality standards. These names shall be listed in the SWPPP.

4. The Permittee shall retain the SWPPP on-site or within reasonable access to the site and make it available per the requirements of Special Condition S3.G.

S13. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION ACTIVITIES (CONTINUED)

5. The Permittee shall retain the SWPPP and copies of inspection reports and all other reports required by this permit for at least three (3) years after the date of final stabilization of the construction site. The Permittee shall make these documents available per the requirements of Special Condition S3.G.

6. Reports on incidents, such as discharge of spills and other noncompliance notification, shall be included in the records.

7. Modifications

   a. The Department may notify the Permittee when the SWPPP does not meet one or more of the requirements of this special condition. Upon notification by the Department, the Permittee shall take appropriate action(s) to come into compliance with this special condition.

   b. The Department may require SWPPP and BMP modifications if compliance with State of Washington Surface Water Quality Standards (chapter 173-201A WAC), Sediment Management Standards (chapter 173-204 WAC), Ground Water Quality Standards (chapter 173-200 WAC), and human health based criteria in the National Toxics Rule (Federal Register, Vol. 57, No. 246, Dec. 22, 1992, pages 60848-60923) is not being achieved.

   c. The Permittee shall modify the SWPPP whenever there is a change in design, construction, operation, or maintenance of any BMP which cause(s) the SWPPP to be less effective in controlling the pollutants.

   d. Whenever a self-inspection reveals that the description of pollutant sources or the BMPs identified in the SWPPP are inadequate, due to the actual discharge of or potential to discharge a significant amount of any pollutant, the SWPPP shall be modified, as appropriate. The Permittee shall provide for implementation of any modifications to the SWPPP in a timely manner.

8. BMPs shall be selected from the most recent published edition of the Stormwater Management Manual for the Puget Sound Basin (SWMM), that has been available for at least one hundred twenty (120) days prior to BMP selection, or other equivalent manuals available at the time of BMP selection or when the selection of additional BMPs is necessary.

S13. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION ACTIVITIES (CONTINUED)

9. The Permittee may request in writing that the Department approves the use of an experimental BMP. The request shall be submitted to the Department at least thirty (30) days prior to the proposed use of the experimental BMP. Once the Department has approved the use of an experimental BMP for a particular airport construction project, that BMP is automatically authorized for use on other airport projects as a non-experimental BMP, unless the Department specifies otherwise in writing at the time of authorizing the use of the experimental BMP. The Department reserves the right to reassess, modify, or revoke the authorization to use experimental BMPs.

   The request shall include, but need not be limited to, a description of:

   a. The experimental BMP;

   b. Why the experimental BMP is being requested;

   c. Why the BMPs in the SWMM are not appropriate;

   d. Applicable construction techniques;

   e. The characteristics of the site or sites at which use of the experimental BMP is proposed;

   f. Design criteria for the experimental BMP and the expected results;

   g. Maintenance procedures;

   h. Cost estimates;

   i. Monitoring procedures and duration; and

   j. If appropriate, an approved BMP that could be used if the experimental BMP fails.

C. <u>SWPPP Contents and Requirements</u>

The SWPPP shall consist of and make provision for the following:

1. An Erosion and Sediment Control Plan

   The Erosion and Sediment Control Plan shall describe stabilization and structural practices, both of which shall be implemented to minimize erosion and the transport of sediments.

S13. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION ACTIVITIES (CONTINUED)

a. Stabilization Practices

The Erosion and Sediment Control Plan shall include a description of stabilization BMPs, including site-specific scheduling of the implementation of the practices. Stabilization practices may include: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, commercially available soil stabilization products, and other appropriate measures. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated shall be included in the plan. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased.

The plan shall ensure that the following requirements are satisfied:

i) All exposed and unworked soils shall be stabilized by suitable and timely application of BMPs.

ii) Existing vegetation should be preserved where attainable. Areas which are not to be disturbed, including setbacks, sensitive/critical areas and their buffers, trees and drainage courses, shall be marked or flagged on site before construction activities are initiated. These areas should not be harmed when measures under the SWPPP and/or construction activities are undertaken.

iii) Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes shall be stabilized in accordance with the requirements of this subsection.

iv) Stabilization adequate to prevent erosion of outlets and adjacent stream banks shall be provided at the outlets of all conveyance systems.

v) All storm drain inlets made operable during construction shall be properly maintained.

vi) Wherever construction vehicle access routes intersect paved roads, provisions must be made to minimize the transport of sediment (mud) onto the paved road. If sediment is transported onto a road surface, the roads adjacent to the construction site shall be cleaned on a regular basis. Street washing shall be allowed only after other methods to prevent the transport or removal of the sediments are unsuccessful.

S13. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION ACTIVITIES (CONTINUED)

b. Structural Practices

In addition to stabilization practices, the Erosion and Sediment Control Plan shall include a description of structural BMPs to divert flows from exposed soils, store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site to the degree attainable. Such practices may include silt fences, earth dikes, drainage swales, sediment traps, check dams, sub-surface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and sediment basins. Structural practices should be placed on upland soils to the degree attainable. The installation of these devices may be subject to Section 404 of the Federal Clean Water Act. The plan shall ensure that the following requirements are satisfied:

i) Prior to leaving the site, stormwater runoff shall pass through a sediment pond or sediment trap, or other appropriate BMPs.

ii) Properties adjacent to the project site shall be protected from sediment deposition.

iii) Sediment ponds and traps, perimeter dikes, sediment barriers, and other BMPs intended to trap sediment on-site shall be constructed as a first step in grading. These BMPs shall be functional before land disturbing activities take place. Earthen structures used for sediment control such as dams, dikes, and diversions shall be stabilized as soon as possible.

iv) Properties and waterways downstream from the construction site shall be protected from erosion due to increases in volume, velocity, and peak flow of stormwater runoff from the project site.

v) All temporary erosion and sediment control BMPs shall be removed within thirty (30) days after final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment shall be removed or stabilized on-site. Disturbed soil areas resulting from removal shall be permanently stabilized.

S13. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION ACTIVITIES (CONTINUED)

c. Inspection and Maintenance

All BMPs shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function. All on-site erosion and sediment control measures shall be inspected at least once every seven days and within 24 hours after any storm event of greater than 0.5 inches of rain per 24 hour period.

d. Recordkeeping

Reports summarizing the scope of inspections, the personnel conducting the inspection, the date(s) of the inspection, major observations relating to the implementation of the SWPPP, and actions taken as a result of these inspections shall be prepared and retained as part of the SWPPP.

e. Format

The Erosion and Sediment Control Plan shall consist of two parts: a narrative and a set of site plans. The Permittee may refer to Chapter II-4 of the Department's SWMM for guidance on the content and format.

2. Control of Pollutants Other Than Sediment on Construction Sites

All pollutants other than sediment that occur on-site during construction shall be handled and disposed of in a manner that does not cause contamination of stormwater. Chapter II-3 of the SWMM can be referenced for guidance in controlling other potential pollutants.

3. Coordination with Local Requirements

This permit does not relieve the Permittee of compliance with any more stringent requirements of local government.

Also, as required by the Puget Sound Water Quality Management Plan, local governments within the Puget Sound Basin are to adopt requirements for construction which are at least equivalent to the requirements listed in Chapter I-2 of the Department's SWMM. Where the Department has determined such requirements to be equivalent, compliance with these requirements meets the SWMM requirements of this permit.

S13. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR CONSTRUCTION ACTIVITIES (CONTINUED)

4. Construction Stormwater/Dewatering Monitoring

A monitoring plan for stormwater and construction dewatering discharges shall be submitted to the Department for review and approval at least thirty (30) days prior to the start of construction. The plan shall be deemed approved if Ecology does not respond to the plan at least five (5) days prior to the scheduled date of construction.

5. SWPPP Contents for Discharges of Construction Stormwater to Gilliam Creek and tributaries and Walker Creek and tributaries

a. The SWPPP shall at a minimum incorporate Special Condition S2.C.2.

b. Stormwater Detention – Unless otherwise authorized in writing by Ecology, any new diversion ditch or channel, pond, trap, impoundment or other detention or retention BMP constructed at the site for treatment of construction stormwater shall be designed, constructed, and maintained to contain and provide treatment for the peak flow for the 10-year, 24-hour precipitation event estimated from data published by the National Oceanic and Atmospheric Administration.

c. Vehicle Trackout – Vehicles shall be cleaned of mud, rock, and other material before entering a paved public highway to prevent visible tire tracks.

S14. STORMWATER DRAINAGE DETENTION

All construction actions taken by the Permittee shall provide sufficient detention and/or shall use existing available detention capacity, in accordance with the Stormwater Management Manual for the Puget Sound Basin or its approved equivalent, to prevent an increase in the peak flow rate or flooding frequency of Miller Creek and Des Moines Creek. All detention facilities owned and/or operated by the Permittee shall be inspected, maintained, and repaired as needed to assure continued performance of their intended function.

The Permittee shall submit to the Department within three (3) months of the effective date of this permit an Operations and Maintenance Plan for the Lake Reba Detention Facility.

S15. IWS HYDROGEOLOGIC STUDY

The Permittee shall perform a hydrogeologic study in the vicinity of the Industrial Waste Treatment Plant and Lagoons to evaluate the potential for the Industrial Wastewater Facility operations to impact ground water quality. The IWS Hydrogeologic Study shall include an assessment of the current condition of the hydrogeologic environment in the vicinity of the Industrial Waste System Treatment plant and lagoons. The IWS Hydrogeologic Study shall comply with the requirements contained in WAC 173-200 and make appropriate reference to the Implementation Guidance for the Ground Water Quality Standards (Ecology Publication # 96-02).

S15. IWS HYDROGEOLOGIC STUDY (CONTINUED)

The Permittee shall submit a scope of work for the IWS Hydrogeologic Study to the Department for review and approval within six (6) months of the effective date of this permit. A report of the study results shall be submitted to the Department no later than twenty-one (21) months from Ecology's approval of the scope of work, but in no event later than September 1, 2001. This condition is not applicable to any cleanup of residual contamination due to releases of industrial wastewater or contaminants, which are regulated under the MTCA and are not regulated under this permit. Ongoing discharges of industrial wastewater or contaminants are regulated under this permit.

S16. SANITARY SEWER PROHIBITED DISCHARGES

A. General Prohibitions

The Permittee shall not introduce into the POTW pollutant(s) which cause pass through or interference.

B. Specific Prohibitions

In addition, the following shall not be introduced into the POTW:

1. Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than 60° C (140° F) using the test methods specified in 40 CFR 261.21;

2. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference;

3. Any pollutant, including oxygen-demanding pollutants (BOD, etc.), released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;

4. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40° C (104° F) unless the approval authority, upon request of the POTW, approves alternative temperature limits;

5. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

6. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

7. Any trucked or hauled pollutants, except at discharge points designated by the POTW;

S16. SANITARY SEWER PROHIBITED DISCHARGES (CONTINUED)

8. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0 or greater than 12.0, unless the works is specifically designed to accommodate such discharges.

C. Prohibited Unless Approved

1. Any of the following discharges are prohibited unless approved by the Department under extraordinary circumstances (such as a lack of direct discharge alternatives due to combined sewer service or a need to augment sewage flows due to septic conditions):

   a. Non-contact cooling water in significant volumes.

   b. Stormwater and other direct inflow sources.

   c. Wastewaters significantly affecting system hydraulic loading, which do not require treatment or would not be afforded a significant degree of treatment by the system.

2. Unless specifically authorized in this permit, the discharge of dangerous wastes as defined in Chapter 173-303 WAC, is prohibited.

GENERAL CONDITIONS

G1. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to the Department shall be signed and certified.

A. All permit applications shall be signed by either a principal executive officer of at least the level of vice president of a corporation, a general partner of a partnership, or the proprietor of a sole proprietorship.

B. All reports required by this permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Department, and

2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

C. Changes to authorization. If an authorization under paragraph B.2. above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of B.2. must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G2. RIGHT OF ENTRY

The Permittee shall allow an authorized representative of the Department, upon the presentation of credentials and such other documents as may be required by law:

A. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit;

B. To have access to and copy at reasonable times any records that must be kept under the terms of the permit;

C. To inspect at reasonable times any monitoring equipment or method of monitoring required in the permit;

D. To inspect at reasonable times any collection, treatment, pollution management, or discharge facilities; and

E. To sample at reasonable times any discharge of pollutants.

G3. PERMIT ACTIONS

This permit shall be subject to modification, suspension, or termination, in whole or in part by the Department for any of the following causes:

A. Violation of any permit term or condition;

B. Obtaining a permit by misrepresentation or failure to disclose all relevant facts;

C. A material change in quantity or type of waste disposal;

D. A material change in the condition of the waters of the state; or

E. Nonpayment of fees assessed pursuant to RCW 90.48.465.

The Department may also modify this permit, including the schedule of compliance or other conditions, if it determines good and valid cause exists, including promulgation or revisions of regulations or new information.

G4. REPORTING A CAUSE FOR MODIFICATION

The Permittee shall submit a new application, or a supplement to the previous application, along with required engineering plans and reports, whenever a material change in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application shall be submitted at least sixty (60) days prior to any proposed changes. Submission of this application does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G5. PLAN REVIEW REQUIRED

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications shall be submitted to the Department for approval in accordance with Chapter 173-240 WAC. Engineering reports, plans, and specifications should be submitted at least one hundred and eighty (180) days prior to the planned start of construction. Facilities shall be constructed and operated in accordance with the approved plans.

G6. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in the permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G7. DUTY TO REAPPLY

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit.

G8. PERMIT TRANSFER

This permit is automatically transferred to a new owner or operator if:

A. A written agreement between the old and new owner or operator containing a specific date for transfer of permit responsibility, coverage, and liability is submitted to the Department;

B. A copy of the permit is provided to the new owner; and

C. The Department does not notify the Permittee of the need to modify the permit.

Unless this permit is automatically transferred according to section A. above, this permit may be transferred only if it is modified to identify the new Permittee and to incorporate such other requirements as determined necessary by the Department.

G9. REDUCED PRODUCTION FOR COMPLIANCE

The Permittee, in order to maintain compliance with its permit, shall control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G10. REMOVED SUBSTANCES

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

G11. TOXIC POLLUTANTS

If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant and that standard or prohibition is more stringent than any limitation upon such pollutant in the permit, the Department shall institute proceedings to modify or revoke and reissue the permit to conform to the new toxic effluent standard or prohibition.

G12. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G13. ADDITIONAL MONITORING

The Department may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G14. PAYMENT OF FEES

The Permittee shall submit payment of fees associated with this permit as assessed by the Department. The Department may revoke this permit if the permit fees established under Chapter 173-224 WAC are not paid.

G15. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be and be deemed to be a separate and distinct violation.

PORT OF SEATTLE, SEATTLE-TACOMA INTERNATIONAL AIRPORT
NPDES PERMIT NUMBER WA-002465-1
ADDENDUM TO FACT SHEET
MAJOR MODIFICATION
MAY 29, 2001

This is an addendum to the fact sheet accompanying NPDES Permit No. WA-002465-1 issued to the Port of Seattle for the discharge of treated industrial wastewater and stormwater from Seattle-Tacoma International Airport to waters of the State of Washington.

MODIFICATIONS IN RESPONSE TO REQUEST FROM THE PORT OF SEATTLE

On October 20, 2000, the Port of Seattle submitted to the Department of Ecology a request for a major permit modification to NPDES Permit No. WA-002465-1 (Port of Seattle, Seattle-Tacoma International Airport). The Port of Seattle requested the permit modification to extend permit coverage to stormwater and uncontaminated construction dewatering discharges associated with construction projects at Seattle-Tacoma International Airport and the Third Runway and Master Plan Update projects. The modified permit will authorize discharges from construction activities to Walker Creek and its tributaries, Gilliam Creek and its tributaries, Des Moines Creek, the City of SeaTac storm sewer, the IWS and Miller Creek .

The Department modified the NPDES Permit No. WA-002465-1 as follows and as a response to public comment.

NPDES Permit

Page 1, Receiving Water
The listing of receiving water has been modified to include new water bodies (vi), (vii):

(i) Puget Sound (Industrial Wastewater)
(ii) Des Moines Creek, (Stormwater).
(iii) Miller Creek (Stormwater)
(iv) City of SeaTac Storm Sewer, tributary to Gillian Creek and the Green River (Stormwater).
(v) Midway Sewer District Sanitary Sewer, (Miscellaneous Blowdown)
(vi) Walker Creek and tributaries (Construction Stormwater)
(vii) Gilliam Creek and tributaries (Construction Stormwater)

Page 8, **S1. DISCHARGE LIMITATIONS**

The permit language has been modified to better define the authorized discharges by listing each discharge and eliminating the reference to Figure 2. :

The permit now authorizes the discharge of treated industrial wastewater, construction and non-construction stormwater, and uncontaminated construction dewatering water to waters of the state of Washington and/or to municipal storm drains from airport construction sties, including construction of the SR 509 and SR 518 interchange improvements.

Page 12, **S1.G. Construction Related Discharges**

The permit language has been modified to better define the authorized construction project discharges at the airport.

Page 17, S2.C. **Construction Stormwater/Dewatering Monitoring**

Lists specific monitoring requirements that must be included in the monitoring plans for discharges to Gilliam and Walker Creeks. Pollutants characterized for construction stormwater discharges are turbidity, pH and oil and grease.

Page 17, S3.C. **Construction Stormwater/Dewatering Monitoring**

Submission of monitoring results for the new receiving waters of Gilliam and Walker Creeks is now required every other month.

Page 48, S13.C.5. **SWPPP Contents for Discharges of Construction Stormwater to Gilliam Creek and Tributaries and Walker Creek and Tributaries.**

New detention and retention design requirements are required for discharges to Gilliam and Walker Creeks.

RESPONSIVENESS SUMMARY FOR THE PORT OF SEATTLE SEATTLE-TACOMA INTERNATIONAL AIRPORT MODIFICATION

The Department received comments from the City of Burien, Dan Caldwell, Peter J. Eglick and Kevin L. Storck of Helsell Fetterman on behalf of the five cities (Burien, Des Moines, Federal Way, Normandy Park, Tukwila) and the Highline School district that comprise the Airport Communities Coalition (ACC) Greg Wingard, Peter Willing, Water Resources Consulting , L.L.C., John A. Strand, Ph.D. with Columbia Biological Assessments on behalf of the Airport communities Coalition (ACC), Peter Willing, Ph.D. on behalf of the Airport Communities Coalition, Arlene Brown, Andrea Grad, Rick Poulin of Smith and Lowney, Al Furney, Arlene Brown, Derek Wentorf of the Puget Soundkeeper Alliance, Jim Bartlemay, JoAn E. Cox, Senator Dow Constantine, Senator Tracey Eide, Senator Julia Patterson, Representative Karen Keiser, Representative Joe McDermott, Representative Mark Miloscia, Representative Erik Poulsen and Representative Shay Schual-Berke.

1. Specific outfalls are not listed on the first page of the permit for the added construction sites as they are on page 2 for the permanent outfalls which list latitude and longitude. Only water bodies are listed not specific outfalls. Water body I.D. numbers are not listed. The exact outfalls are necessary for the public to comment on and is crucial information for commenting on understanding the impacts. The permit allows a discharge of unknown pollutant, in unknown amounts, at unspecified locations, into unspecified receiving water at unknown times in the future. Water Body (viii) Named and unnamed tributaries, storm drains and other waters of the United States tributary to the receiving water identified in (ii) - (vii) above does not allow specific comments on the outfalls or receiving waters.

Response: The receiving water bodies are listed. Water body I.D. numbers for Walker and Gilliam Creeks are added. The Department is transitioning from the water body I.D. numbering system to a numbering system based on the longitude and latitude of water courses. Geographical Information Systems support the shift to this system using what are labeled LLID numbers. Walker and Gilliam Creeks were not catalogued in the old WBID system, but now have identification numbers in the new system. The new LLID numbers are displayed on Page 1 of the final permit modification.

It is difficult to predict the exact location of stormwater discharges for projects that are in early stages of design. Further, the schedule of construction projects cannot be predicted during the 5 year term of the permit term. Special Condition S13.C.4. requires a monitoring plan for stormwater and construction dewatering discharges submitted to the Department for review and approval at least 30 days prior to the start of construction. The outfalls for construction storm water discharges will be identified at that time. The receiving water bodies for the to be determined outfalls have been identified as Des Moines Creek, Miller Creek, Gilliam Creek including tributaries and Walker Creek including tributaries. Through the standing public disclosure request the Airport Communities Coalition will be notified of the precise points of discharge.

Also, the Water Body *(viii) Named and unnamed tributaries, stormdrains and other waters of the United States tributary to the receiving water identified in (ii) - (vii) above* will be eliminated.

In most cases construction permits do not list temporary outfalls. This is the case for the National Pollutant Discharge Elimination System for Stormwater Discharges Associated with Construction Activities. This permit is the most common permit issued for sites similar to the construction activities for the Third Runway and Master Plan Updates projects.

Construction stormwater discharges are characterized for turbidity, pH and oil and grease.

2. The comment period must be extended so the public can comment on unnamed tributaries and outfalls and until the relationship with the pending 401 certification request has been clarified.

Response: Based on this request the comment period closing was extended from February 26, 2001 to March 12, 2001. The Department is amending the final modification by narrowing its application and language. Also, Water Body *(viii) Named and unnamed tributaries, stormdrain and the waters of the United States tributary to the receiving water* authorization has been eliminated.

3. The Construction Stormwater Pollution Prevention Plans are inconsistent, confusing does not allow the public to precisely and easily identify facilities and outfall locations and isn't in the standard format provided by the NPDES permit.

Response: The stormwater pollution prevention plan (SWPPP) requirements under Condition S13 for construction activities follows the standard format for large construction sites NPDES permits. Specific identifications are listed in the temporary erosion and sediment control stormwater monitoring plans. For example the discharge points and upstream and downstream points in receiving waters for the Delta Airlines Ground Service Equipment Building Seattle-Tacoma International Airport dated December 17, 1999 were listed as:

- Site Discharge: the west inflowing pipe into Manhole 4-982
- Upstream: Manhole SDE4-977
- Downstream: Manhole 4-996

These are precise and easily identified facilities and outfall locations. Maps with specific locations are included.

4. The permit does not list the construction projects.

Response: The construction projects are listed in the Master Plan Improvement Projects for development of the site. Permit conditions do not change for each project since construction stormwater and uncontaminated dewatering water will have the same characteristics regardless of the project.

5. Walker Creek has never been subject to NPDES permit related discharges from the airport. It is a largely pristine waterway with fairly intact (for an urban waterway) habitat. It joins Miller Creek shortly upstream from the estuary with Puget Sound and there will be a significant increase in pollution loading and flows in the lower reaches of Miller Creek, the focus of a number of habitat improvement related projects which are jeopardized by the proposed permit modification. TSS is at 96 milligrams per liter from Outfall 012 discharging to Gilliam Creek.

Response: Monitoring will ensure state criteria and the pristine waterway and habitat are protected from pollutant discharges of turbidity, pH and total petroleum hydrocarbons. This will include upstream downstream monitoring of each outfall for direct comparison to the criteria and monitoring for oil and grease and no visible sheen. If state criteria are attained the water bodies are protected.

6. The creation of new outfalls will vastly increase airport caused pollutant loading and will also impact Chinook salmon which have been identified in the lower reach of Gilliam Creek. The Port and Ecology have previously claimed no impact from the proposed third runway. Yet the NPDES major modification approves such projects and outfalls related to the third runway and Master Use Plan, even though there has been no consideration of the related impacts under the National Environmental Policy Act, the 401 Certification/404 Permit process or the Endangered Species Act under the FAA consultation with NWMFS. The permit does not protect habitat for salmon and salmon prey species.

Response: Threaten species under the Endangered Species Act are protected by the state criteria for aquatic life listed in WAC 173-201A. The criteria protects characteristic uses such as salmonid migration, rearing, spawning and harvesting in Gilliam, and Walker Creeks. The monitoring, recording and reporting requirements provided in the NPDES permit will ensure protection of characteristic uses. Certification under Section 401 of the Act will address the impacts from construction.

7. Low flow conditions from increase impervious surface in the water shed as a result of construction will impact Gilliam Creek a small creek with relatively low flows.

Response: The low flow impacts from added impervious surfaces are addressed in the extensive analysis and extensive and complete review of the *Comprehensive Stormwater Management Plan, Master Plan Update Improvements, Seattle-Tacoma International Airport.* December, 2000.

8. The NPDES permit and the permit modifications currently under consideration for the SeaTac International Airport, fail to require the new construction related outfalls to meet the water quality standards. As such, the airport's NPDES permit itself and the proposed modifications to that permit are out of conformity with the requirements of the CWA. The language for S2.E. needs to be modified to require the data to be presented in such a fashion as to allow a determination of compliance with the water quality standards.

Response: Turbidity, pH and total petroleum hydrocarbons are the criteria characterized for construction stormwater discharges and are included in the monitoring plans for each construction activity falling under S13 discharging to surface waters of the state. These monitoring requirements have been added to Condition S2 for the added receiving water bodies of Walker and Gilliam Creeks. The permit will require turbidity, oil and grease and pH in the units of the standard for direct comparison.

9. The permanent stormwater outfalls violate toxic metals criteria and the permit itself does not require the Permittee to meet water quality standards. The permit only states the criteria as an objective.

Response: The permit modification is limited to temporary construction outfalls not the permanent stormwater outfalls. Compliance with state criteria is required for the temporary construction outfalls whether or not it is included in the permit and whether or not it is listed as an objective.

10. The Department has established the need to monitor and sample construction related discharges on a statewide basis due to the inability of BMP implementation to meet water quality standards.

Response: The monitoring requirements required under the permit go beyond the requirements at most construction sites in the state. This is the case for the NPDES General Permit for Stormwater Discharges Associated with Construction Activities, by far the most common permit for construction sites. No monitoring is required under the General Construction permit.

11. The Northwest Ponds are illegally used for treatment without Ecology enforcement.

Response: The Northwest Ponds are not used to treat construction stormwater and are outside the scope of the permit modification.

12. Imported contaminated fill soils and numerous contaminated structures and areas of contaminated soils that are disturbed during construction will cause a discharge of toxics without specific monitoring requirements.

Response: The Department will ensure the fill meets the requirements listed in the 1999 Airfield Project Soil Fill Acceptance Criteria prior to the application. There is no known area of contaminated soils within the footprint of the Third runway. Furthermore, the majority of the site will be paved minimizing contact between stormwater and soils.

13. The Port is out of compliance with the Model Toxic Cleanup Act Agreed Order dated May 25, 1999.

Response: This is outside the scope of the modification of the NPDES permit for construction sites.

14. Ecology is allowing discharge of metals including copper, lead and zinc and other toxics such as commercial formulation of glycols at levels known to threaten, harm or harass listed species such as the Chinook Salmon which inhabit Gilliam Creek. This is a take under the Endangered Species Act.

Response: The discharges from construction sites are not characterized for heavy metals or glycols.

15. WDOE should not adopt the proposed permit modification. Instead WDOE should require the Port to treat each of the major stormwater outfalls to Miller Creek, Des Moines Creek and Gilliam Creeks prior to final approval of another modification of the NPDES Permit. Each of the major stormwater outfalls should be tested for metals, glycols dissolved oxygen(CO), biological oxygen demand, turbidity, fecal coliforms, etc. as well as periodic toxicity testing, both above and below the sources of stormwater, should be included in the new permit. The existing outfalls violate state criteria for metals. Sediments exceed the Lower Effects Levels for lead and zinc from the Guidelines for the Protection and Management of Aquatic Sediment in Ontario Guidelines. Lead and zinc concentrations found in cutthroat trout in the upper reach.

Response: Dissolved oxygen, biochemical oxygen demand, metals, glycol and fecal coliform are not characterized for construction sites and uncontaminated construction dewatering water. The permit modification is limited to the construction areas, not the existing stormwater outfalls.

16. The Port no longer measures metals concentrations in water or sediments below its outfalls nor does it model the fate of metal in its stormwater and receiving water. Copper, lead and zinc could persist over the entire length of each creek to their outfalls to Puget Sound.

Response: It is not anticipated that the construction storm water discharges to Walker and Gilliam Creeks will contain metals. However, metals monitoring is required for non construction stormwater and industrial wastewater.

17. Although not monitored routinely turbidity in area streams traceable to construction at STIA continues to be a problem.

Response: Discharge and upstream and downstream monitoring is part of the monitoring plans submitted by the Port for each construction phase. See Condition S2. Monitoring for the added receiving waters of Walker and Gilliam Creek will include minimum monitoring requirements to determine compliance with the turbidity standards in WAC 173-201A.

18. Increased discharges of deicers will result from the increased impervious surface as a result of the deicers. These are highly toxic to aquatic life at relatively low concentrations.

Response: Deicers are not discharged from the construction sites and are not characterized for construction stormwater discharges. Permanent discharge locations are currently monitored for deicers.

19. Good science requires that monitoring occur both above and below each outfall during wet season and at all outfalls both permanent and temporary (construction-related).

Response: The Department agrees. When reviewing monitoring plans the Department considers this monitoring protocol

20. Metals reporting should not be obscured with median values and hardness should be inserted into Section S2.A.

Response: Metals reporting is outside the scope of this permit modification. Hardness is also outside the scope since the toxicity of pollutants characterized for construction sites are not hardness dependent. The pollutants that are characterized for construction sites will be reported in the units of the state criteria for direct comparison.

21. Limitations and monitoring need to be established for common pollutants from construction areas (TSS, turbidity, etc.) so as not to destroy the ecosystem for the receiving water. The permit does not impose the minimum requirement of the King County Surface Water Manual to remove 80 percent of TSS.

Response: The Department concurs. The Department will establish specific monitoring requirements for Gilliam and Walker Creeks. Turbidity is a measure of light defraction

of smaller lighter harder to control solids. Total suspended solids is a weight determination dominated by heavier particles. If turbidity is controlled than the more easily controlled solids will also be controlled. TSS will not therefore be monitored.

22. A mention should be made concerning Best Management Practices limiting the sediment and other pollutants that enter the water as a result of this work.

Response: The Department agrees. Pollutants must always be minimized in discharges. Condition S14. requires sufficient detention in accordance with the Stormwater Management Manual for the Puget Sound Basin or equivalent for all construction. S13. will be changed to increase the stringency of new facility design for discharges to Walker and Gilliam Creeks to the peak flow for the ten year 24 hour design storm.

23. Monitoring plans for construction stormwater discharges should always be approved within 5 days prior to the scheduled date of construction and not deemed approved as S2.C. allows.

Response: The Department believes the monitoring plan approval system in S2.C. is appropriate. The Department prefers to review each plan and return comments. Staffing does not allow the necessary inspections for each project and monitoring location. Also, many of the plans are similar.

24. The AKART report in S4. for the Industrial Waste Water Treatment should include milestones. The permit should require training of IWS operators. The number of tests and standards for testing should be included in S8.C. for the IWS.

Response: The IWS is outside the scope of the modification for added construction sites. They do not discharge to the IWS.

25. The Permittee should be required to have an operator-training course and the operator should be required to meet certain qualifications set forth by Ecology.

Response: Port of Seattle stormwater staff are certified by the Washington State Department of Transportation sponsored through the *Construction Site Erosion and Spill Control Certification Course.*

26. S8.C. allows the Permittee to petition for less frequent testing if "both species demonstrate low sensitivity."

Response: S8.C. Acute Toxicity - Industrial Wastewater does not apply to construction stormwater.

27. Copies of the SWPPPs should be kept by the Department and updated with inspection reports.

Response: The SWPPP listed in S12 and S13 requires the Permittee to conduct seasonal inspections and updates to the SWPPP. The Department will review SWPPPs during inspections of the construction sites. Condition S3.B. will be changed to require routine submission of monitoring reports for Gilliam and Walker Creeks to aide in determining implementation of adequate SWPPPs.

28. The embankment is unsafe and dam safety analysis is ignored, construction traffic is unknown, construction air pollution has reduced visibility, earthquakes will cause a risk of stormwater pond failure, only in-basin mitigation for wetland impacts should be considered, a new airport should be considered, the airport was caught and fined numerous times in 1999, the port made misleading comments on costs of third runway and the Port stole water.

Response: These are outside the scope of the permit modification for construction sites.

29. Stormwater ponds take 20 years to function properly.

Response: Stormwater ponds are effective immediately after construction. They fail if not maintained after startup. Maintenance is required under Special Condition S13.C.1.c. Inspection and Maintenance to prevent pond failure.

30. Condition S1.E. exempts stormwater flow from the IWS and lagoons "due to stormwater flow in excess of the design criteria". Under Condition S5.B. overflow are not considered a bypass and will not constitute a violation. The permit needs to define a design storm to be enforceable.

Response: The IWS and associated lagoons are outside the scope of the modification to expand the construction sites. This concern may be revisited during the next permit renewal.

31. Condition S14. Requires compliance of the stormwater construction actions constructed in accordance with the stormwater Manual for the Puget Sound Basin . This is less stringent than the design for the Third Runway and Master Plan Update projects. The NPDES permit should be modified to define the "updated" detention standards as part of the permit language and to require that the updated standards be met for all new and retrofit construction.

Response: The Department agrees. The temporary erosion and sediment control ponds are designed to meet at least a ten year 24 hour design storm. A permit modification will

be added to require this updated design for the new detention facilities discharging to Walker and Gilliam Creeks covered by the modification.

32. The NPDES permit should not be modified for the expanded areas if the 401 and 404 permits are not issued for the Third Runway Project.

Response: The NPDES permit is issued under Title IV Section 402 of the Clean Water Act. State Certifications are issued under Title IV Section 401. Title IV Section 404 pertains to dredging issued by the Corps of Engineers. Section 401 and 402 are issued under independent sections of the Clean Water Act and in no particular sequence. Therefore they can be issued independently. Consistency will be maintained between the permits that are issued by the Department of Ecology.