Issuance Date: February 7, 2002
Effective Date: March 15, 2002
Expiration Date: March 15, 2007

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT No. WA0037953

State of Washington
DEPARTMENT OF ECOLOGY
Olympia, Washington 98504-8711

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.

Cascade Pole and Lumber Company
Post Office Box 1469
Tacoma, Washington 98401

Facility Location:	Receiving Water:	
1640 Marc Street Tacoma, Washington 98421	Outfall 001: Blair Waterway via Lincoln Avenue Ditch Outfall 002: Puyallup River	
Water Body I.D. No.:	Discharge Location	
Outfall 001: WA-10-0020 Outfall 002: WA-05-1003	Outfall 001:	Latitude: 47° 15' 18" N Longitude: 122° 24' 30" W
Industry Type:	Outfall 002:	Latitude: 47° 15' 20" N Longitude: 122° 24' 51" W
Wood Preserving		

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

This document has been formatted for PDF viewing.

Original signed by:
Kelly Susewind
Water Quality Section Manager
Southwest Regional Office
Washington State Department of Ecology

SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S1.E	Notification on Diffuser Modification	1/permit cycle	Within 3 years of the permit effective date
S3.	Discharge Monitoring Report	Monthly	30th day of the month following completed monitoring period
S4.B.3	Dioxins, Furans and 2,3,4,6-trichlorophenol testing	1/permit cycle in the fourth year of the permit term	Within 60 days of completion of the tests
S5.A.	Operations and Maintenance Manual	1/permit cycle	Within 180 days of the effective date of the permit
S5.B.1	Report on authorized storm water bypass	As necessary	Within 30 days of bypass
S6.	Modification to Solid Waste Plan	As necessary	Within 30 days of modification
S7.	Spill Plan	As necessary	Within 30 days of modification
S8.A.	Acute Toxicity Characterization Data for Outfall 001	1/2months in the second year of permit term	Within 60 days of sampling date
S8.A.	Acute Toxicity Tests Characterization Summary Report for Outfall 001	1/permit cycle	90 days following the last characterization sampling event
S8.C.	Toxicity Identification/Reduction Evaluation Plan for Outfall 001	As Necessary	Within 60 days of establishing toxicity as per Condition S8.B
S9.A.	Acute Toxicity Characterization Data for Outfall 002	1/2months in the fourth year of permit term	Within 60 days of sampling date
S9.A.	Acute Toxicity Tests Characterization Summary Report for Outfall 002	1/permit cycle	90 days following the last characterization sampling event
S9.D.	Toxicity Identification/Reduction Evaluation Plan for Outfall 002	As Necessary	Within 60 days of establishing non-compliance with acute toxicity limitation
S10.A.	Chronic Toxicity Characterization Data for Outfall 002	1/2months in the fourth year of permit term	Within 60 days of sampling date

Permit Section	Submittal	Frequency	First Submittal Date
S10A.	Chronic Toxicity Tests Characterization Summary Report for Outfall 002	1/permit cycle	90 days following the last characterization sampling event
S910D.	Toxicity Identification/Reduction Evaluation Plan for Outfall 002	As Necessary	Within 60 days of establishing non-compliance with acute toxicity limitation
S11.	Outfall Evaluation	Annually	Within 30 days of completion of the inspection
S12.A1	Letter notifying Ecology that a copy of SWPPP has been submitted to the local municipal operator	1/permit cycle	Within 180 days of the permit effective date
S12.A2 S16.A1	SWPPP Modifications	As necessary	At least 30 days prior to implementation of proposed changes
S12.B2	Notification of Unpermitted non-stormwater to *Stormwater Drainage System*	As necessary	Immediate notification and a written report within 30 days of becoming aware of the unpermitted discharge
S13.A	Letter of intent to conduct Chromium Assessment Study	1/permit cycle	within 6 months of permit effective date
S13.D	Data on Chromium Assessment Study	1/permit cycle	At least 180 days before permit renewal, as per condition S13
S14.	Sediment Sampling and Analysis Plan	1/permit cycle	within 3 years of permit effective date
S15.	Notice of Intent to Conduct Effluent Mixing Study	1/permit cycle	within 60 days of permit effective date
S15.	Effluent Mixing Study Plan	1/permit cycle	within 90 days of permit effective date
S15.	Draft Effluent Mixing Study Report	1/permit cycle	within 16 months of the permit effective date
S15.	Final Effluent Mixing Study Report	1/permit cycle	within 18 months of the permit effective date
S17.	Notice of Intent to Prepare P2 Engineering Report or Implement Additional BMPs	1/permit cycle	within 60 days of permit effective date
S17.A1.	SWPPP Update	1/permit cycle	within 3 months of the permit effective date
S17.A2	Phase I Pollution Prevention Engineering Report	1/permit cycle	within 6 months of the permit effective date

Permit Section	Submittal	Frequency	First Submittal Date
S17.A3	Phase II Pollution Prevention Engineering Report	1/permit cycle	within one year of the permit effective date
S17.C3	Phase I Pollution Prevention Engineering Report Draft Study Plan	1/permit cycle	Within 30 days of the permit effective date
S17.C3	Phase I Pollution Prevention Engineering Report Final Study Plan	1/permit cycle	within 15 days of receipt of the Department comments on Draft
S17.D	Phase II Pollution Prevention Engineering Report Draft Study Plan	1/permit cycle	within 90 days of the permit effective date
S17.D	Phase II Pollution Prevention Engineering Report Final Study Plan	1/permit cycle	within fifteen days of receipt of Department comments on Draft
S18	Compliance Progress Reports	1/year	By January 15 of each calendar year until the permittee attains compliance with the final effluent limits contained in Special Condition No. 1.
G1.	Notice of Change in Authorization	As necessary	
G4.	Permit Application for Substantive Changes to the Discharge	As necessary	at least 60 days prior to any proposed changes
G5.	Engineering Report for Construction or Modification Activities	As necessary	at least 180 days prior to planned start of construction unless approved otherwise.
G7.	Application for permit renewal	1/permit cycle	at least 180 days before permit expiration date
G8.	Notice of Permit Transfer	As necessary	
G21.	Notice of Planned Changes	As necessary	
G22.	Report Anticipating Noncompliance	As necessary	

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 pollutants more frequently than, or at a concentration in excess of, authorized by this permit shall constitute a violation of the terms and conditions of this permit. The Storm Season for purposes of this permit is defined as September through August.

A. Process Wastewater

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee shall not discharge process wastewater to the waters of the state.

Process wastewater is defined as: all wastewater generated as a result of conditioning wood prior to or during the treatment process; any wastewater generated as a result of preservative formulation, recovery or regeneration; any wastewater generated as a result of process area cleaning operations including but not limited to, wastewater from the drip pad, retort and tank farm maintenance operations; and any storm water associated with the process area including the tank farm, retort, drip pad and any other area across which treated product is moved prior to its having ceased dripping.

B. Treated and Untreated Product Storage Area Storm Water Discharge to Lincoln Avenue Ditch via City of Tacoma Storm Sewer (Outfall 001).

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge (at Outfall 001) treated storm water collected from primarily the creosote and pentachlorophenol treated wood storage area subject to meeting the following limitations.

Parameter	Outfall 001 Maximum Daily Limit[1]	
	Final Limitations	Interim Limitations[3]
Arsenic [2], µg/L	360	
Chromium [2,3], µg/L	138	660
Copper [2,3], µg/L	159	310
Pentachlorophenol[3] µg/L	81	215
Oil and Grease, mg/L	10	
pH	6 to 9	
Polynuclear Aromatic Hydrocarbons, µg/L	100	
Total Suspended Solids (TSS), mg/L	50	

1. The maximum daily effluent limitation is defined as the highest allowable daily discharge.
2. All metals are expressed as total recoverable metals.
3. A compliance schedule of one year from the effective date of the permit is allowed for complying with the final effluent limitation for copper, chromium and pentachlorophenol. During the compliance schedule the Permittee shall comply with the interim limitations for copper, chromium and pentachlorophenol.

C. Treated and Untreated Product Storage Area Storm Water Discharge to Puyallup River (Outfall 002)

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge storm water (at Outfall 002) collected from primarily the CCA treated wood and white wood storage areas subject to meeting the following limitations.

Parameter	Outfall 002 Maximum Daily Limit[1]	
	Final Limit	Interim Limit[3]
Arsenic [2,3], µg/L	360	650
Chromium [2,3], µg/L	137	1030
Copper [2,3], µg/L	156	390
Pentachlorophenol[3], µg/L	20	63
Oil and Grease, mg/L	10	
pH	6 to 9	
Polynuclear Aromatic Hydrocarbons[3], µg/L	100	
Total Suspended Solids (TSS)[3], mg/L	50	
Toxicity	No acute or chronic toxity[4]	

1. The maximum daily effluent limitation is defined as the highest allowable daily discharge.
2. All metals are expressed as total recoverable metals.
3. A compliance schedule of twelve months from the effective date of the permit is allowed for complying with the final effluent limitation for polynuclear aromatic hydrocarbons, arsenic, pentachlorophenol and total suspended solids. A compliance schedule of three years from the effective date of the permit is allowed for copper, and chromium. During the compliance schedules the Permittee shall comply with the interim limitations for arsenic, copper, chromium, and pentachlorophenol.
4. As described in Special Provisions S9B and S10B.

Ecology may propose alternative final effluent limits based upon the results of the effluent mixing study required under Special Condition 17 (S17) and other factors. The critical conditions Ecology is specifying in S17 are equivalent to the conditions Ecology used to calculate final effluent limits. Had the results of such a study been available, Ecology would have used the results to set final effluent limits in this permit. Ecology will seek public comment on any proposal to set alternative final effluent limits.

D. Dilution Factor and Mixing Zone Description

i. For discharge at Outfall 001, the Permittee is allowed a 1 to 9 dilution factor in the City of Tacoma storm sewer prior to discharging to the Lincoln Avenue Ditch via the City of Tacoma Outfall.

ii. For discharges to the Puyallup River from Outfall 002 in the fourth year of the permit and thereafter, the Permittee is allowed a 1 to 10 dilution factor in the Puyallup River. The maximum boundaries of the mixing zone is defined as follows:
(a) In any horizontal direction from the discharge port(s), the mixing zone will extend a distance not greater than $1/10^{th}$ of the sum of two hundred feet plus the depth of water over the discharge port(s) as measured or calculated during mean lower low water with river flow at the 7Q10 or equivalent seasonal flows as determined by the Department; and
(b) In the direction transverse to river flow, the mixing zone will not extend a distance that exceeds twenty-five percent of the width of the water body as measured or calculated

during mean lower low water with river flow at the 7Q10 or equivalent seasonal flows as determined by the Department.

E. Diffuser Modification Notification

Within three years of the effective date of the permit, the Permittee shall modify the diffuser for Outfall 002 in the Puyallup River if necessary to meet water quality standards outside of the mixing zone described in D.ii above and notify the Department of any such modification.

S2. MONITORING REQUIREMENTS

A. Monitoring Schedule

1. The Permittee shall monitor the storm water discharge according to the following schedule.

Category	Parameter	Units	Sample Point*	Minimum Sampling Frequency[1]	Sample Type[2]
Storm water Effluent	Arsenic[3,4]	µg/L	Outfall 001& 002	1/month	Grab
	Chromium[3,4]	µg/L	Outfall 001& 002	1/month	Grab
	Copper[3,4]	µg/L	Outfall 001& 002	1/month	Grab
	Pentachlorophenol[3,4]	µg/L	Outfall 001& 002, treatment system influent	1/month	Grab
	Total PAH[5]	µg/L	Outfall 001& 002	1/month	Grab
	TSS[4]	mg/L	Outfall 001& 002	1/month	Grab
	Oil & Grease[4]	mg/L	Outfall 001& 002	1/month	Grab
	pH	s.u.	Outfall 001& 002	1/month	Grab
	Flow[6]	GPM	Outfall 001& 002	1/month	Estimate
City Outfall[7] (At Lincoln Avenue Ditch)	Arsenic[3,4]	µg/L	City Outfall	1/month[8]	Grab
	Chromium[3,4]	µg/L	City Outfall	1/month[8]	Grab
	Copper[3,4]	µg/L	City Outfall	1/month[8]	Grab
	Pentachlorophenol[3,4]	µg/L	City Outfall	1/month[8]	Grab

Category	Parameter	Units	Sample Point*	Minimum Sampling Frequency[1]	Sample Type[2]
	Flow[6]	GPM	City Outfall	1/month[8]	Estimate
Puyallup River	Salinity	ppt.	20 ft downstream of Outfall 002	1/month[9]	grab
WET Testing	As specified in Condition S8, S9 and S10				

* Samples from Outfalls 001 and 002 are to be tested separately, not combined.

1. The monitoring frequency for Outfall 001 (discharge to Lincoln Avenue Ditch) and 002 (discharge to Puyallup River) shall be once a month for the months of September through August for a total of twelve samples per sampling season.

   All samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inch in magnitude and that occurs at least 48 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. The grab sample shall be taken during the first 60 minutes of discharge. If the collection of a grab sample is impractical within the first 60 minutes of a rainfall event, a grab sample can be taken during the first two hours of discharge, and the Permittee shall submit with the monitoring report a description of why a grab sample was not possible during the first hour.

   If the Permittee is unable to collect a sample due to insufficient rainfall, lack of a qualifying rain event, or due to adverse climatic conditions, the Permittee shall submit in lieu of sampling data an explanation of why samples were not collected. Adverse climatic conditions which may prohibit the collection of samples includes weather conditions that create dangerous conditions for personnel or otherwise make collection of a sample impracticable.

2. A grab sample is an individual discreet sample.

3. The method detection level (MDL) for arsenic is 1 µg/L using graphite furnace atomic absorption spectrometry (GFAA) and EPA method number 206.2 from 40 CFR Part 136. The quantification level (QL) for arsenic is 5 µg/L (5 x MDL). EPA method number 206.3 or 200.7 may be used if the effluent arsenic concentration is five times above the method detection limit of the method.

   The method detection level (MDL) for chromium is 1 µg/L using graphite furnace atomic absorption spectrometry (GFAA) and EPA method number 218.2 from 40 CFR Part 136. The quantification level (QL) for chromium is 5 µg/L (5 x MDL). EPA method number 218.1 or 200.7 may be used if the effluent chromium concentration is five times above the method detection limit of the method.

   The method detection level (MDL) for copper is 1 µg/L using graphite furnace atomic absorption spectrometry (GFAA) and EPA method number 220.2 from 40 CFR Part 136. The quantification level (QL) for copper is 5 µg/L (5 x MDL). EPA method number 220.1 or 200.7 may be used if the effluent copper concentration is five times above the method detection limit of the method.

   The method detection level (MDL) for pentachlorophenol is 1 µg/L using EPA method 604 (GC/ECD method). However, other equivalent approved methods (40 CFR Part 136) may be used.

   Oil & Grease and TSS shall be measured using approved methods (40 CFR Part 136).

4. If the measured effluent concentration is below the QL, the Permittee shall report less than QL and include the QL for the method used.

Category	Parameter	Units	Sample Point*	Minimum Sampling Frequency[1]	Sample Type[2]

5. Total polynuclear aromatic hydrocarbons (PAH) are defined as the summation of the 16 following PAHs:

Naphthalene	Acenaphthylene
Acenaphthene	Fluorene
Phenanthrene	Anthracene
Fluoranthene	Pyrene
Benzo(a)anthracene	Chrysene
Benzo(b)fluoranthene	Benzo(k)fluoranthene
Benzo(a)pyrene	Dibenzo(a,h)anthracene
Benzo(ghi)perylene	Indeno(1,2,3-cd)pyrene

Each of the 16 priority pollutant PAHs identified above, shall be quantified and reported separately using EPA Method 610, HPLC option with UV and fluorescence detection or other equivalent approved method. The 16 individual PAHs shall be summed to arrive at a Total PAH value. A non-detect value may be reported as zero for the purposes of determining compliance with the Total PAH limit.

6. Flow shall be estimated for each outfall and storm event sampled based upon rainfall measurements or estimates, storm water collection area for each outfall and an estimate of the runoff coefficient of the drainage area.

7. Sampling from the City of Tacoma storm sewer outfall to the Lincoln Avenue Ditch shall be conducted on the same date **but following** the Permittee's sampling of Outfall 001.

8. The first sampling event for a year for the City of Tacoma storm sewer fall shall coincide with the "first flush" of the season in September. The sampling frequency shall be once **every month** for the first year of the permit term, for a total of **twelve** samples. The number of samples collected thereafter would be three each year (the first to coincide with the first flush in September, the second in January, and the third in May of each year).

9. Salinity measurement of the receiving water at outfall 002 (in Puyallup River) shall be done for the months of September through August for the first year of the permit term for a total of twelve samples. At each sampling event, three depths (surface, middle, and bottom) shall be sampled for each of the four tidal stages (low tide, mid tide, high tide, and mid ebb). At the end of the first year of permit term, vertical average salinity would be determined and effluent limitations may be changed , if necessary, through a permit modification.

2. The Permittee shall monitor any bypass of storm water discharge to the Puyallup River via Outfall 002 according to the following schedule. The reporting shall be in accordance with Condition S5.B.1.

Category	Parameter	Units	Sample Point	Minimum Sampling Frequency[1]	Sample Type[2]
Bypass	Arsenic[3,4]	µg/L	Outfall 002	each bypass	Grab
	Chromium[3,4]	µg/L	Outfall 002	each bypass	Grab
	Copper[3,4]	µg/L	Outfall 002	each bypass	Grab
	Pentachlorophenol[3,4]	µg/L	Outfall 002	each bypass	Grab
	Total PAH[5]	µg/L	Outfall 002	each bypass	Grab
	TSS[4]	mg/L	Outfall 002	each bypass	Grab
	Oil & Grease[4]	mg/L	Outfall 002	each bypass	Grab
	pH	s.u.	Outfall 002	each bypass	Grab
	Flow and Duration[6]	GPM, Hours	Outfall 002	each bypass	Estimate

1. Samples shall be collected upon release of bypass at outfalls 002.
2. A grab sample is an individual discreet sample.
3. The analytical methods and detection levels are defined as above in footnote 3 of Condition S2.A.1
4. If the measured effluent concentration is below the QL, the Permittee shall report less than QL and include the QL for the method used.
5. Total polynuclear aromatic hydrocarbons (PAH) are defined as in footnote 5 of Condition S2.A.1
6. Flow shall be estimated or measured for each bypass

B. 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 of Ecology (Department).

C. 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. Crops, soils and hazardous waste data are exempted from this requirement pending accreditation of laboratories for analysis of these media by the Department.

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

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 monitoring period, unless otherwise specified in this permit. The report(s) shall be sent to the Department of Ecology, Southwest Regional Office, P.O. Box 47775, Olympia, Washington 98504-7775

Discharge Monitoring Report forms must be submitted monthly whether or not the facility was discharging. If there was **no flow at the outfalls** during a given monitoring period, submit the form as required with the words **"no flow"** entered in place of the monitoring results.

B. Records Retention

The Permittee shall retain records of all monitoring information for a minimum of three 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.

C. 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.

D. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by this permit using test procedures specified by Condition S2 or S4 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.

E. 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, correct the problem and, if applicable, repeat sampling and analysis of any violation immediately and submit the results to the Department within 30 days after becoming aware of the violation;

2. Immediately notify the Department of the failure to comply; and

3. Submit a detailed written report to the Department within thirty days (5 days for 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. DIOXIN, FURAN AND 2,3,4,6-TRICHLOROPHENOL TESTING

A. Testing Requirements

The Permittee shall conduct chemical analyses of representative samples of storm water at Outfalls 001 and 002. The Permittee shall conduct chemical analyses in accordance with protocols, monitoring requirements, and QA/QC procedures specified in this section.

Storm water samples shall be analyzed for:

2,3,4,6-Tetrachlorophenol

Dioxins:
2,3,7,8-Tetrachlorodibenzo-p-dioxin
Tetrachlorodibenzo-p-dioxins
Pentachlorodibenzo-p-dioxins
Hexachlorodibenzo-p-dioxins
Heptachlorodibenzo-p-dioxins
Octachlorodibenzo-p-dioxins

Furans:
Tetrachlorodibenzofurans
Pentachlorodibenzofurans
Hexachlorodibenzofurans
Heptachlorodibenzofurans
Octachlorodibenzofurans

B. Monitoring Requirements

1. Samples shall be collected in the fourth year of the permit term.

2. Grab samples of storm water runoff shall be collected from the treated wood storage yard Outfall No. 001, and Outfall 002, from the first measurable storm event (greater than 0.1 inches of rainfall) of the season. The storm season is

defined for the purposes of this permit as September through August. In the event that the first storm event of the season does not produce sufficient runoff to sample, the first storm event of the season producing sufficient runoff shall be sampled. Sample collection, storage and analysis shall follow the protocols in S4.C below.

3. The results of the study shall be submitted to the Department within 60 days of completion of all tests. The report shall include: quality assurance and quality control procedures for sample collection, transport and analysis dates, the magnitude and duration of the storm event sampled, the time since the last storm event and the magnitude of the last storm event.

C. Protocols

1. Sampling for dioxins and furans shall be in accordance with appendix B of the USEPA/Paper Industry Cooperative Dioxin Screening Study (EPA 440/1-88-025, March 1988).

2. In accordance with 40 CFR 122.41(j)(4), Dioxins and furans shall be analyzed using either:

EPA Method 1613: Tetra- through Octa- chlorinated Dioxins and Furans by Isotope Dilution;

or

NCASI Procedures for the Preparation and Isomer Specific Analysis of Pulp and Paper Industry Samples for 2,3,7,8-TCDD and 2,3,7,8-TCDF: Technical Bulletin No 551;

or

An equivalent approved in writing in advance by the Department.

S5. OPERATION AND MAINTENANCE

The Permittee shall, at all times, properly operate and maintain all facilities or systems of treatment and control (and related appurtenances) which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

A. Operations and Maintenance Manual

An Operations and Maintenance (O&M) Manual shall be prepared by the Permittee in accordance with WAC 173-240-150 and be submitted to the Department for approval within 180 days after permit effective date. The 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 approved Operations and Maintenance Manual shall be kept available at the permitted facility and all operators shall follow the instructions and procedures of this manual.

The following information shall be summarized in the O&M Manual.

1. Maintenance procedures and schedules for all oil/water separators on site.

2. Maintenance procedures and schedules for any catch basin inserts.

3. Maintenance procedure for the mixed media filters and granulated activated carbon filters including procedures for filter media replacement and disposal.

4. Maintenance procedure and operation of the pH sensor/controller system including frequency and procedure for regular calibration.

5. The procedure for allowing a bypass, resulting from a severe storm shall be described in the plan.

6. A description of any regularly scheduled maintenance or repair activities at the facility which would affect the volume or character of storm water discharge and a plan for monitoring and treating/controlling the discharge of maintenance-related materials (such as cleaners, degreasers, solvents, etc.).

B. Bypass Procedures

The bypass of stormwater from any portion of the collection and/or treatment system prohibited unless one of the following conditions applies:

1. Bypass of storm water is authorized only under severe storm events that causes an exceedence of the design capacity of the diffuser and the capacity of the onsite collection and storage system. The permittee shall submit a report to the Department within 30 days of the bypass indicating the magnitude of the storm event(s) that caused the bypass, how long the bypass lasted, and the quality of the bypass (as per Condition S2.A.2).

2. 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 condition S3.E "Noncompliance Notification."

3. 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 notify the Department at least 30 days before the planned date of bypass. The notice 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) if a water quality criteria exceedence is unavoidable, a request for modification of water quality standards 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 facilities plan and 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.

   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.

4. 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.

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 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. The Permittee shall apply for a permit or permit modification as may be required for such discharges to state ground or surface waters.

C. Solid Waste Control Plan

The Permittee shall review its solid waste control plan on an annual basis and submit all proposed revisions or modifications to the solid waste control plan to the Department within 30 days of the proposed changes. The Permittee shall comply with any plan modifications.

S7. SPILL PLAN

The Permittee shall review the existing Spill Plan at least annually and update the Spill Plan as needed. Changes to the plan shall be sent to the Department within 30 days of the modification. The plan and any supplements shall be followed throughout the term of the permit.

Plans and manuals required by 40 CFR Part 112, contingency plans required by Chapter 173-303 WAC, or other plans required by other agencies which meet the intent of this section may be submitted.

S8. ACUTE TOXICITY (OUTFALL 001)

A. Effluent Characterization

The Permittee shall conduct acute toxicity testing on the final effluent at Outfall 001 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 every other month, beginning in September and continuing through May of the following year or until five samples have been collected and tested. Test shall begin at the first measurable rainfall event (a rainfall event with at least 0.1-inch of rain) in September of the second year of the permit term. Acute toxicity testing shall follow protocols, monitoring requirements, and quality assurance/quality control procedures specified in this Section.

A written report shall be submitted to the Department within 60 days after the sample date. A final effluent characterization summary report shall be submitted to the Department within 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).

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. One of the dilution series must be at and one of the dilution series below *the critical sample concentration* defined below:

A *critical sample concentration* is defined as a sample dilution equivalent to the proportion of Cascade Pole's discharge in the combined flow at the City outfall as defined in Condition S1.D for Outfall 001. This is equivalent to approximately 11% effluent. This shall be prepared using laboratory dilution water.

The lab shall be instructed to use its standard dilution water to prepare the concentration series and to test with at least four replicates per concentration. The results of a single comparison hypothesis test comparing survival in *the critical sample concentration* to control survival shall be reported for each test. These tests are not being required to determine compliance with an effluent limit. This permit contains no effluent limit for acute whole effluent toxicity.

The Permittee shall immediately implement subsection B if any acute toxicity test determines a statistically significant difference in survival between the control and the *critical sample concentration* 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 *critical sample concentration* is less than 10%, the hypothesis test shall be conducted at the 0.01 level of significance.

B. Response to Significant Toxicity in critical sample concentration

The Permittee shall begin additional compliance monitoring within one week from the time of receiving test results showing a statistically significant difference in survival between the control and the *critical sample concentration* as described in subsection A above. This additional monitoring shall be conducted weekly for the next four weeks having sufficient rainfall to provide a sample and using the same test and species that showed a statistically significant reduction in survival in the *critical sample concentration*. The additional monitoring shall be conducted using a series of at least five effluent concentrations of which one concentration must be at and one less than the *critical sample concentration*. The lab shall be instructed to use its standard dilution

water to prepare the concentration series and to test with at least four replicates per concentration. The results of a single comparison hypothesis test comparing survival in *critical sample concentration* to control survival shall be reported for each test.

The Permittee shall immediately implement subsection C. if any of the additional monitoring tests shows a statistically significant difference in survival between the control and *critical sample concentration* 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 *critical sample concentration* is less than 10%, the hypothesis test shall be conducted at the 0.01 level of significance. These tests are not being required to determine compliance with an effluent limit. This permit contains no effluent limit for acute whole effluent toxicity.

C. Toxicity Identification/Reduction Evaluation (TI/RE)

The Permittee shall submit a Toxicity Identification/Reduction Evaluation (TI/RE) plan to the Department within 60 days from the time of receiving test results showing a statistically significant difference in survival between the control and *critical sample concentration* during the additional monitoring described in subsection B above. 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). In addition, the TI/RE plan for this discharge may consider factors not applicable to other TI/RE plans. These factors are explained in the permit Fact Sheet.

D. Requirements if No Significant Toxicity is Found in the Effluent Characterization

If none of the effluent characterization tests required in subsection A above shows a statistically significant reduction in survival in *critical sample concentration* relative to the control, then the Permittee shall be considered to have no regulatorily important acute whole effluent toxicity. No further acute WET testing will be required during this permit term unless significant changes occur in facility operations, which might, in the Department's opinion, increase effluent toxicity.

E. Sampling and Reporting Requirements

1. All reports for effluent characterization or additional 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 grab samples. The 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.

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.

7. All whole effluent toxicity 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. ACUTE TOXICITY (OUTFALL 002)

A. Effluent Characterization

The Permittee shall conduct acute toxicity testing on the final effluent at Outfall 002 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 every other month, beginning in September and continuing through May of the following year or until five samples have been collected and tested. Test shall begin at the first measurable rainfall event (a storm event with at least 0.1-inch of rain) in September of the fourth year of the permit term. 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.

A written report shall be submitted to the Department within 60 days after the sample date. A final effluent characterization summary report shall be submitted to the Department within 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) Rainbow Trout, *Oncorhynchus mykiss,* (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. 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.

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).

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.

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 is authorized in Section S1.D of this permit. The ACEC equals 10% effluent.

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

Monitoring to determine compliance with the effluent limit shall be conducted once every three months between September through May 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.

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 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 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 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

The Permittee shall test final effluent 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.

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 grab 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 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.

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.

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.

S10. CHRONIC TOXICITY (OUTFALL 002)

The Permittee may propose and the Department may approve an alternative to items A. through E. below for sub-lethal effects testing using a species within the genus *Oncorhynchus* instead of Fathead Minnow and the Daphnid.

A. Effluent Characterization

The Permittee shall conduct chronic toxicity testing on the final effluent at Outfall 002 to determine the presence and amount of sub-acute (sub-lethal) toxicity. The two chronic toxicity tests listed below shall be conducted on each sample taken for effluent characterization.

Effluent characterization for chronic toxicity shall be conducted every other month, beginning in September and continuing through May of the following year or until five samples have been collected and tested. Test shall begin at the first measurable rainfall event (a rainfall event with at least 0.1-inch of rain) in September of the fourth year of the permit term. Chronic toxicity testing shall follow protocols, monitoring requirements, and quality assurance/quality control procedures specified in this Section.

A written report shall be submitted to the Department within 60 days after the sample date. A final effluent characterization summary report shall be submitted to the Department within 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.

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. This series of dilutions shall include the ACEC. The Permittee shall 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.

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

1) Fathead Minnow, *Pimephales promelas*. (EPA/600/4-91/002)

2) Water flea, *Ceriodaphnia dubia*. (EPA/600/4-91/002).

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.

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.

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 determined pursuant to WAC 173-201A-100. The CCEC for chronic toxicity testing is 1.1% effluent.

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

Monitoring to determine compliance with the effluent limit shall be conducted once every three months between September and May 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.

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 on the next three discharge events 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 Permittee 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.

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. The TI/RE plan submittal shall be within 60 days after the sample date for the third additional compliance monitoring test. If the Permittee decides to forgo the rest of the additional compliance monitoring tests required in this subsection because one of the first two additional compliance monitoring tests failed to meet the chronic toxicity limit, then the Permittee shall submit the TI/RE plan within 60 days after the sample date for the first additional monitoring test to violate the chronic toxicity limit. 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

The Permittee shall test final effluent 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.

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 grab samples. Composite 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. Grab samples must be shipped on ice to the lab immediately upon collection. If a grab sample is received at the testing lab within one hour after collection, it must have a temperature below 20° C at receipt. If a grab sample is received at the testing lab within 4 hours after collection, it must be below 12° C at receipt. All other samples must be below 8° C at receipt. The lab shall begin the toxicity testing as soon as possible but no later than 36 hours after sampling was ended. The lab shall store all samples at 4° C in the dark from receipt until completion of the test.

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.

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.

S11. OUTFALL EVALUATION

The Permittee shall inspect, on an annual basis, the submerged portion of Outfall 002 line and diffuser to document its integrity and continued function. If conditions allow for a photographic verification, it shall be included in the report. The inspection shall be done during the period of July through September of each year. The inspection report shall be submitted to the Department within 30 days of completion of the inspection.

S12. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

The definitions of terms used in this section are provided in the guidance document entitled *Stormwater Pollution Prevention Planning for Industrial Facilities*, which is published by the Department of Ecology.

The Permittee shall implement all the elements of the existing SWPPP including all operational, treatment and source control BMPs, as well as any erosion and sediment control BMPs determined necessary.

A. General Requirements

1. Submission, Retention and Availability:

The Permittee shall retain the SWPPP on-site or within reasonable access to the site and submit a copy of the SWPPP to Ecology and to the municipal operator of the storm sewer system whenever the Permittee modifies the SWPPP. In the submittal to Ecology, the permittee shall indicate that a copy of the SWPPP has been submitted to the local municipal operator. The SWPPP and all of its modifications shall be signed in accordance with General Condition G1.

2. Modifications:

The Permittee shall modify the SWPPP whenever there is a change in design, construction, operation or maintenance, which causes the SWPPP to be less effective in controlling the pollutants. Whenever the description of potential pollutant sources or the pollution prevention measures and controls identified in the SWPPP are inadequate, the SWPPP shall be modified, as appropriate, within two (2) weeks of such determination. The proposed modifications to the SWPPP shall be submitted to the Department at least 30 days in advance of implementing the proposed changes in the plan unless Ecology 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.

4. The Permittee shall prepare the SWPPP and all modifications 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 the operational BMPs,
   c. A description of selected source-control BMPs,
   d. When necessary, a description of the erosion and sediment control BMPs,
   e. When necessary, a description of the treatment BMPs, and
   f. An implementation schedule.

B. Implementation

The Permittee shall conduct two inspections per year; one during the wet season (September 1 - May 31) and the other during the dry season (June 1 - August 31).

1. The wet season inspection 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 inspection shall include observations of the presence of floating materials, suspended solids, oil and grease, discolorations, turbidity, odor, etc. in the stormwater discharge(s).

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, noncontact cooling water, or process wastewater (including *leachate*) to the *stormwater drainage system*. If an unpermitted, non-stormwater discharge is discovered, the Permittee shall immediately notify the Department and follow up with a written report on the characteristics of the discharge within 30 days of the discovery.

C. Plan Evaluation

The Permittee shall evaluate 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. A record shall be maintained summarizing the results of inspections and a certification, in accordance with General Condition G1, that the facility is in compliance with the plan and this permit and identifying any incidents of noncompliance.

S13. CHROMIUM ASSESSMENT STUDY

A. The Permittee may elect to study the various species (hexavalent and trivalent forms) of chromium potentially present at Outfalls 001 and 002. Before commencing such a study, a letter of intent must be submitted to Ecology no later then 6 months from the effective date of the permit.

B. If this study is undertaken, all sampling protocols contained in Condition S2 of this permit shall be followed. Analytical methods consistent with those listed in 40 CFR Part 136, or other methods approved by Ecology shall be followed.

C. For this study, the Permittee shall monitor both the hexavalent and trivalent forms of chromium at both Outfalls 001 and 002 on a monthly basis for at least 2 winter seasons prior to the expiration date of the permit.

D. All data collected for this study shall be submitted to Ecology along with application for permit renewal, at least 180 days prior to the expiration date of the permit or at least 180 days prior to a permit modification.

E. Based on an evaluation of the data, Ecology may include separate effluent limitations for hexavalent and trivalent chromium in the next permit cycle or as a permit modification.

S14. SEDIMENT MONITORING

A. Sediment Sampling and Analysis Plan

Within three years of the effective date of this permit, the Permittee shall submit to the Department for review and approval a Sediment Sampling and Analysis Plan and implementation schedule for sediment monitoring. The purpose of the plan is to characterize sediment quality in the vicinity of the Permittee's bypass. The Permittee shall follow the guidance provided in the Sediment Source Control Standards User Manual, Appendix B: Sediment Sampling and Analysis Plan (Ecology, 1995).

The discharger need not submit or implement this plan if the Department has approved an implementation schedule to remove the bypass discharge from the Puyallup River.

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 no later than 90 days after Department approval of the sediment sampling and analysis plan. The Sediment Data Report shall conform with the approved Sampling and Analysis Plan.

S15. EFFLUENT MIXING STUDY

Within 60 days of the effective date of this permit, the permittee will notify the Department of its intent to conduct the mixing zone study described under this condition. If the permittee does not so notify the Department, then it need not comply with this special condition and the Department

will not consider setting revised final effluent limits. If the permittee does so notify the Department, the Permittee will comply with this special condition and the Department may propose revised final effluent limits if it approves the Study Plan and Final Effluent Mixing Zone Report described below.

A. General Requirements

The Permittee shall determine the degree of effluent and receiving water mixing which occurs within the mixing zone defined in permit condition S1.Dii. The degree of mixing shall be determined during critical conditions, as defined in WAC 173-201A-020 Definitions-"Critical Condition," or as close to critical conditions as reasonably possible.

The degree of mixing shall be determined during critical receiving water conditions by using the stormwater flow rate generated by the two-year, 72-hour storm event. For the acute analysis, the permittee shall use the peak one-hour flow rate. For the chronic analysis, the permittee shall use an estimate of the average run-off rate.

The critical condition scenarios shall be established in accordance with *Guidance for Conducting Mixing Zone Analyses* (Ecology, 1996). The dilution ratio shall be measured in the field with dye using study protocols specified in the *Guidance*, section 5.0 "Conducting a Dye Study," as well as other protocols listed in subpart C. Protocols. The use of mixing models is an acceptable alternative or adjunct to a dye study if the critical ambient conditions necessary for model input are known or will be established with field studies; and if the diffuser is visually inspected for integrity or has been recently tested for performance by the use of tracers. The *Guidance* mentioned above shall be consulted when choosing the appropriate model. The use of models is also required if critical condition scenarios that need to be examined are quite different from the set of conditions present during the dye study.

Validation (and possibly calibration) of a model may be necessary and shall be done in accordance with the *Guidance* mentioned above - in particular subsection 5.2 "Quantify Dilution." The resultant dilution ratios for acute and chronic boundaries shall be applied in accordance with directions found in Ecology's *Permit Writer's Manual* (Ecology publication 92-109, most current version) - in particular Chapter VI.

A Plan of Study shall be submitted to the Department for review and approval 30 days prior to the initiation of the effluent mixing study.

B. Specific Requirements

The purpose of the effluent mixing study is to establish a dilution factor so that Ecology can calculate alternative, final effluent limits to meet water quality standards.

The effluent mixing study will conform to Ecology guidance for establishing mixing zones in estuaries. Critical conditions will be as described in Ecology Guidance. The critical river flow for the effluent mixing study will be the 7Q10 or seasonal critical river flows. The seasonal, semi-annual critical river flow will be the 7Q20 and the seasonal, quarterly critical river flow will be the 7Q40 as described in draft EPA guidance and the 1994 Puyallup River TMDL addendum.[1]

[1] USEPA. 1984. Technical Guidance Manual for Performing Waste Load Allocations, Book IX, Innovative Waste Load Allocations (Draft).

In calculating seasonal critical river flows, Cascade Pole will reduce all average daily discharge data by the mean seasonal discharge from the Puget Sound Energy Lake Tapps Diversion at Dieringer to account for the effects of hydropower operations. Cascade Pole will calculate river flow statistics using data from the USGS Puyallup River at Puyallup gage for the period of record 1928-1998.

The Effluent Mixing Study will utilize existing data (USGS data, City of Tacoma Puyallup River outfall study data) and salinity data collected under this permit. Cascade Pole will use existing data, the effluent mixing model and supplemental hydraulic models to evaluate the extent to which the effluent mixing analysis will benefit from additional data collection.

As part of the effluent mixing study, the permittee shall examine the combined effect of Outfall 002 and the bypass. The purpose of this part of the study is to ensure that the combined discharge does not result in a violation of receiving water quality standards more frequently than once every three years or occupy a mixing zone larger than that allowed under WAC 173-201A-100.

The mixing zone study report shall describe the diffuser siting requirements needed to meet receiving water standards outside of the mixing zone.

Cascade Pole will complete a dye study as part of the effluent mixing evaluation and will present results from the dye study in the final report. . In general, dye studies are useful to evaluate far-field effects of discharges and compliance with chronic compliance boundaries. Use of a dye study is appropriate in this instance to estimate reflux concentrations at the design condition, to confirm the dilution credit granted for whole effluent testing, and to evaluate potential impacts to waters under the jurisdiction of the Puyallup Tribe of Indians upstream of the Lincoln Avenue Bridge.

The permittee shall comply with all conditions in the attendant Agreed Order.

C. Reporting Requirements

If the Permittee has information on the background physical conditions or background concentration of chemical substances (for which there are criteria in Chapter 173-201A WAC) in the receiving water, this information shall be submitted to the Department as part of the Effluent Mixing Report.

The results of the effluent mixing study shall be included in a Final Effluent Mixing Report, which shall be submitted to the Department for approval no later than 18 months following the effective date of the permit. The permittee shall submit a draft report within 16 months of the permit effective date and will address any comments from the Department in the final report provided such comments are made at least 30 days prior to the final report due date. If Ecology submits comments on the draft report later than 30 days before the due date for the final report, the permittee may delay issuance of the final report with the approval of the Department. If Ecology does not grant an extension to the due date, the permittee will issue the final report and address Ecology's comments in an addendum due 30 days following receipt of comments.

Pelletier, G. 1994. Addendum to the 1993 Puyallup River TMDL Report. Washington State Department of Ecology.

If the results of the mixing study, toxicity tests. and chemical analysis indicate that the concentration of any pollutant(s) exceeds or has a reasonable potential to exceed the State Water Quality Standards, Chapter 173-201A WAC, the Department may issue a regulatory order to require a reduction of pollutants or modify this permit to impose effluent limitations to meet the Water Quality Standards.

The Permittee shall use some method of fixing and reporting the location of the outfall and mixing zone boundaries (i.e., triangulation off the shore, microwave navigation system, or using Loran or Global Positioning System (GPS) coordinates). The method of fixing station location and the actual station locations shall be identified in the report.

D. Protocols

The Permittee shall determine the dilution ratio using protocols outlined in the following references, approved modifications thereof, or by another method approved by the Department:

-Akar, P.J. and G.H. Jirka, *Cormix2: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Multiport Diffuser Discharges*, USEPA Environmental Research Laboratory, Athens, GA, Draft, July 1990.
-Baumgartner, D.J., W.E. Frick, P.J.W. Roberts, and C.A. Bodeen, *Dilution Models for Effluent Discharges,* USEPA, Pacific Ecosystems Branch, Newport, OR, 1993.
-Doneker, R.L. and G.H. Jirka, *Cormix1: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Submerged Single Port Discharges,* USEPA, Environmental Research Laboratory, Athens, GA. EPA/600-3-90/012, 1990.
-Ecology, *Permit Writer's Manual*, Water Quality Program, Department of Ecology, Olympia WA 98504, July 1994, including most current addenda.
-Ecology, *Guidance for Conducting Mixing Zone Analyses*, Permit Writer's Manual, (Appendix 6.1), Water Quality Program, Department of Ecology, Olympia WA 98504, October, 1996.
-Kilpatrick, F.A., and E.D. Cobb, Measurement of Discharge Using Tracers, Chapter A16, *Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics,* USGS, U.S. Department of the Interior, Reston. VA, 1985.
-Wilson, J.F., E.D. Cobb, and F.A. Kilpatrick, Fluorometric Procedures for Dve Tracing, Chapter A12, *Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics,* USGS, U.S. Department of the Interior. Reston, VA, 1986.

S16. COMPLIANCE WITH ECOLOGY STORMWATER MANUAL; ADDITIONAL OPERATIONAL BMPS

Within 60 days of the effective date of the permit for operational BMPs, and with 180 days of the permit effective date for structural BMPs, the permittee will comply with all Applicable Operational BMPS and Applicable Structural Source Control BMPs for Wood Treatment Areas in the Department of Ecology's Stormwater Management Manual for Western Washington , Volume IV, (Source Control BMPS) page 2-67 and 2-68. Those Applicable requirements are:

A. Applicable Operational BMPs

- Dedicate equipment that is used for treatment activities to prevent the tracking of treatment chemicals to other areas of the site.

- Eliminate non-process traffic on the drip pad. Scrub down non-dedicated lift trucks on the drip pad.
- Immediately remove and properly dispose of soils with visible surface contamination (green soil) to prevent the spread of chemicals to ground water and/or surface water via stormwater runoff.
- If any wood is observed to be contributing chemicals to the environment in the treated wood storage area, relocate it on a concrete chemical containment structure until the surface is clean and until it is drip free and surface dry.

B. Applicable Structural Source Control BMPs

- Dedicate equipment that is used for treatment activities to prevent the tracking of treatment chemicals to other areas of the site.
- Cover and/or enclose, and contain with impervious surfaces, all wood treatment areas. Slope and drain areas around dip tanks, spray boots, retorts, and any other process equipment in a manner that allows return of treatment chemicals to the wood treatment process.
- Cover storage areas for freshly treated wood to prevent contact of treated wood products with stormwater. Segregate clean stormwater from process water. Ensure that all process water is conveyed to an approved treatment system.
- Seal any holes or cracks in the asphalt areas that are subject to wood treatment chemical contamination.
- Elevate stored, treated wood products to prevent contact with stormwater run-on and runoff.
- Place dipped lumber over the dip tank, or on an inclined ramp for a minimum of 30 minutes to allow excess chemical to drip back to the dip tank.
- Place treated lumber with from dip tanks or retorts in a covered paved storage area for at least 24 hours before placement in outside storage. Use a longer storage period during cold weather unless the temporary storage building is heated. The wood shall be drip free and surface dry before it is moved outside.

C. Additional Operational BMPs

Within 60 days from the effect date of the permit, the permittee shall comply with the following BMPs at the facility as an alternative to developing the Pollution Prevention Engineering Report of Special Condition 17.

- The permittee will completely top and side wrap all treated dimensional lumber bundles with no lumber leaving covered drying or storage areas until it has been so wrapped; or completely cover or otherwise completely isolate from contact from rainfall and stormwater runoff all bundled dimensional lumber.
- The permittee will completely cover or otherwise completely isolate from contact from rainfall and stormwater runoff all other treated wood products and newly stored treated wood products. Newly stored refers to treated products that Cascade Pole brings on site for storage and/or re-sale.
- The permittee will install, inspect on a regular basis and maintain in working condition catch basin inserts in all catch basins to minimize the discharge of floating and settleable pollutants.
- The permittee will maintain outdoor areas such that they are free of treated wood debris that is exposed to rainfall and stormwater runoff.

- The permittee will adopt protocols to prevent tracking of process wastewater contaminants from process areas into storage areas. Protocols will include use of boot covers for all employees working in process areas, or a similar measure or measures, and dedicated vehicles in process areas. When vehicles other than dedicated vehicles must access process areas, the permittee will decontaminate these vehicles prior to exit to minimize tracking of pollutants out of the process area.
- The permittee will divert to recycle all stormwater from drainage basins that contain fixed process equipment.

S17. POLLUTION PREVENTION ENGINEERING REPORT FOR TOXICS

The Permittee shall develop a Pollution Prevention Engineering Report (P2 Engineering Report-Phase I and Phase II) for sources of toxic water pollutants. The report shall be prepared following the requirements of WAC 173-240. The objectives of the P2 Engineering Report are to identify pollution prevention opportunities and implement those opportunities that are technically and economically achievable to minimize discharges of pollutants in stormwater discharged to receiving waters.

As an alternative to developing the P2 Engineering Report and implementing controls that the Report or the Department determines are feasible (items A-G, below), the discharger may implement an alternative set of operational best management practices (Special Condition 16C).

Within 60 days of the effective date of this permit, the permittee will notify the Department of its intent to either a) prepare the Pollution Prevention Engineering Report described under this condition or b) implement best management practices (Special Condition 16C).

A. Plan Development and Implementation

1. Within three months of the effective date of the final permit, the Permittee shall:
   - modify its Stormwater Pollution Prevention Plan (SWPPP) to reflect current conditions and to meet the requirements of C.1 and C.2 below; and submit the revised SWPPP to the Department for review and approval.
2. Within six months of the effective date of the final permit, the Permittee shall:
   - develop a Phase I Pollution Prevention Engineering Report to meet the requirements of C.3 below and submit it the Department for review and approval
3. Within one year of the effective date of the final permit, the Permittee shall:
   - develop a Phase II P2 Engineering Report to meet the requirements of paragraph D. below and submit it to the Department for review and approval.
4. The Permittee shall implement selected pollution prevention opportunities according to the timeframes specified in the approved Phase I and Phase II P2 Engineering Reports.

B. General Requirement

The P2 Engineering Report shall be retained onsite.

C. Specific Requirements – Phase I P2 Engineering Report and SWPPP

1. Description of Current P2 Activities.

The SWPPP shall include a description of the existing P2 measures employed at the facility to prevent, reduce, eliminate, control or treat releases of pollutants to influent wastewater streams, stormwater, and/or waters of the state as required under permit condition S12.

2. Description of Potential Pollutants and Sources.

The SWPPP shall include a detailed description of the processes or activities that contribute or potentially contribute pollutants to influent wastewater streams, stormwater, groundwater, and wetlands. Minor incidental waste streams to stormwater, such as landscaping fertilizers, do not have to be included.

The SWPPP shall identify the materials and amounts processed, stored, treated, or disposed of at the facility and the pollutants that are generated or potentially generated or released. The level of detail provided in the plan should be sufficient to help identify and understand how and why materials are used and pollutants generated or released. Process flow diagrams and/or material input/output information shall be included on a process unit basis. The Permittee shall include in the SWPPP all materials which may become pollutants or cause pollution upon reaching state waters, including materials which, when spilled or otherwise released into the environment, would be designated Dangerous Waste by the procedures set forth in WAC 173-303-070.

3. Identification, Preliminary Evaluation, Prioritization and Early Implementation of Pollution Prevention Opportunities.

Within thirty (30) days of the effective date of this permit, Cascade Pole and Lumber Company submit a Draft Study Plan for the Phase I Report. The Department of Ecology will review the Phase I Draft Study Plan and submit comments to Cascade Pole and Lumber Company. Cascade Pole should revise and re-submit the study plan (Final Study Plan) within fifteen (15) days of receipt of the Department's comments. Revisions should be made and submitted to the Department such that the Department can approve Cascade Pole's Final Study Plan within ninety (90) days of the permit effective date.

The Phase I P2 Engineering Report shall identify pollution prevention opportunities and provide a preliminary evaluation of each opportunity's technical feasibility (including safety considerations), economic cost, and potential for reducing discharges of toxic pollutants. In evaluating Phase I pollution prevention opportunities, the Permittee will consider a) partial wrapping of product as now practiced; b) complete top and side wrap; c) temporary protection for treated lumber products; and other source control measures that may be used to reduce pollutant discharges.

Based upon this evaluation, the Permittee shall prioritize the P2 opportunities considering pollutant loading, toxicity and the potential to achieve the greatest reduction with respect to time and costs. The permittee shall schedule for implementation those Phase I P2 opportunities that are technically and economically feasible; and shall remove from further consideration, with concurrence from Ecology, those opportunities that are not technically or economically feasible.

D. Specific Requirements – Phase II P2 Engineering Report

Within ninety (90) days of the effective date of this permit, Cascade Pole and Lumber Company submit a Draft Study Plan for the Phase II Report. The Department of Ecology will review the Phase II Draft Study Plan and submit comments to Cascade Pole and Lumber Company. Cascade Pole should revise and re-submit the study plan (Final Study Plan) within fifteen (15) days of receipt of the Department's comments. Revisions should be made and submitted to the Department such that the Department can approve Cascade Pole's Final Study Plan within one hundred and eighty (180) days of the permit effective date.

The Phase II P2 Engineering Report shall provide a detailed analysis of technical and economical feasibility for the top ten pollution prevention opportunities (if more than ten opportunities were identified), as prioritized in the Phase I P2 Engineering Report. In evaluating and selecting pollution prevention opportunities, the Permittee shall give preference first to those that eliminate, avoid, or reduce the generation of water pollutants at the source, second to those that recycle or reuse the pollutants, and third to those that provide at-source or near-source treatment to remove pollutants or render them less toxic or harmful. Ecology will consider P2 opportunities that are technically and economically feasible to be "known, available, and reasonable."

The Phase II P2 Engineering Report will evaluate P2 measures to minimize discharges of pollutants to receiving waters. The Phase II P2 Engineering Report will consider, among other practices: a) source control practices used elsewhere in the industry; b) production techniques used elsewhere in the industry that have pollution prevention benefits; c) use of additional stormwater storage on-site to minimize volumes of bypassed stormwater; d) permanent covered product storage; e) off-site product storage for excess inventory; f) diversion of bypassed waters to the City of Tacoma storm sewer system and the Lincoln Avenue Ditch/Wetlands; and other source control measures that may be used to reduce pollutant discharges.

Based upon this evaluation, the permittee shall prioritize the P2 opportunities considering pollutant loading, toxicity and the potential to achieve the greatest reduction with respect to time and costs. The permittee shall schedule for implementation those Phase II P2 opportunities that are technically and economically feasible; and shall remove from further consideration, with concurrence from Ecology, those opportunities that are not technically or economically feasible.

The P2 Engineering Report shall include a schedule for implementation of each P2 opportunity that is technically and economically feasible. Ecology expects the Permittee to establish reasonable priorities and schedules for implementation to achieve the greatest reduction in pollutant quantity and toxicity, as well as for management and fiscal necessity.

The Department will solicit and consider public comment from the City of Tacoma, the Port of Tacoma, the Puyallup Tribe of Indians and other interested parties before approving any plan to divert waters to the City of Tacoma storm sewer and the Lincoln Avenue Ditch/Wetlands.

E. Considerations in Identifying, Evaluating, and Selecting P2 Measures

Cross-media shift of pollutants should be avoided, unless a clear net environmental benefit results, and compliance with standards applicable to other media or management programs would be maintained.

In determining if a pollution prevention measure is feasible, the permittee shall use the criteria and methods described in the Department's Permit Writer's Manual for determining Best Available Technology Economically Achievable (BAT) for toxic pollutants.

F. Incorporating Other P2 Plans

The Permittee may incorporate applicable portions of plans or reports prepared for other purposes. Plans or portions of plans incorporated into the P2 plan become enforceable requirements of this permit.

G. Plan Evaluation and Annual Reporting

The Permittee shall submit a progress report 24 months after the permit effective date and every year thereafter, that reports on P2 activities of the previous calendar year. The report shall contain the following elements:

a. A list of the estimated amounts, by weight, of each pollutant identified in C.2. released to the wastewater treatment system, stormwater, and/or waters of the state in the previous calendar year;
b. The implementation status of each pollution prevention opportunity selected for implementation;
c. The results of implementation actions performed in the previous calendar year (quantitative results shall be used whenever possible);
d. Any modifications or updates to the SWPPP.

S18. COMPLIANCE PROGRESS REPORTS

By January 15 of each year, the permittee will submit a report describing progress made in the previous calendar year towards meeting final effluent limits contained in Special Condition No. 1. For the previous calendar year, the reports will describe the structural and operational changes made at the facility that have a pollution prevention or control benefit, present in a summary table the compliance monitoring data, and summarize compliance with conditions contained in this permit.

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 responsible corporate 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.

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 paragraph B.2 above 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 INSPECTION AND 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 and at reasonable cost - any records required to be kept under the terms and conditions of this permit.

C. To inspect - at reasonable times - any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.

D. To sample or monitor - at reasonable times - any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G3. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon the Department's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

A. The following are causes for terminating this permit during its term, or for denying a permit renewal application:

1. Violation of any permit term or condition.

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

3. A material change in quantity or type of waste disposal.

4. A determination that the permitted activity endangers human health or the environment or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination [40 CFR part 122.64(3)].

5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge or sludge use or disposal practice controlled by the permit [40 CFR part 122.64(4)].

6. Nonpayment of fees assessed pursuant to RCW 90.48.465.

7. Failure or refusal of the permittee to allow entry as required in RCW 90.48.090.

B. The following are causes for modification but not revocation and reissuance except when the permittee requests or agrees:

1. A material change in the condition of the waters of the state.

2. New information not available at the time of permit issuance that would have justified the application of different permit conditions.

3. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.

4. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.

5. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR part 122.62.

6. The Department has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.

7. Incorporation of an approved local pretreatment program into a municipality's permit.

C. The following are causes for modification or alternatively revocation and reissuance:

1. Cause exists for termination for reasons listed in A1 through A7, of this section, and the Department determines that modification or revocation and reissuance is appropriate.

2. The Department has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G8) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.

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 to the facility or 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. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance 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 shall be submitted at least one hundred eighty (180) days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities shall be constructed and operated in accordance with the approved plans.

G6. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations. The permittee shall comply with WAC 173-303-675.

G7. DUTY TO REAPPLY

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

G8. TRANSFER OF THIS PERMIT

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Department.

A. Transfers by Modification

Except as provided in paragraph B below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

B. Automatic Transfers

This permit may be automatically transferred to a new Permittee if:

1. The Permittee notifies the Department at least 30 days in advance of the proposed transfer date.
2. The notice includes a written agreement between the existing and new Permittee's containing a specific date transfer of permit responsibility, coverage, and liability between them.
3. The Department does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under the subparagraph may also be minor modification under 40 CFR 122.63. If

this notice is not received, the transfer is effective on the date specified in the written agreement.

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. DUTY TO PROVIDE INFORMATION

The Permittee shall submit to the Department, within a reasonable time, all information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also submit to the Department upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

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.

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 ($10,000) 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 ($10,000) 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 deemed to be a separate and distinct violation.

G16. UPSET

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

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of the upset; 3) the Permittee submitted notice of the upset as required in condition S3.E; and 4) the Permittee complied with any remedial measures required under S5 of this permit.

In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G17. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G18. DUTY TO COMPLY

The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G19. TOXIC POLLUTANTS

The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G20. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this Condition, punishment shall be a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both.

G21. REPORTING PLANNED CHANGES

The Permittee shall, as soon as possible, give notice to the Department of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in: 1) the permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b); 2) a significant change in the nature or an increase in quantity of pollutants discharged; or 3) a significant change in the Permittee's sludge use or disposal practices. Following such notice, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G22. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee shall give advance notice to the Department by submission of a new application or supplement thereto at least one hundred and eighty (180) days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during non-critical water quality periods and carried out in a manner approved by the Department.

G23. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

G24. REPORTING REQUIREMENTS APPLICABLE TO EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGERS

The Permittee belonging to the categories of existing manufacturing, commercial, mining, or silviculture must notify the Department as soon as they know or have reason to believe:

A. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"

1. One hundred micrograms per liter (100 µg/l).

2. Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony.

3. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).

4. The level established by the Director in accordance with 40 CFR 122.44(f).

B. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following "notification levels:"

1. Five hundred micrograms per liter (500µg/L).

2. One milligram per liter (1 mg/L) for antimony.

3. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).

4. The level established by the Director in accordance with 40 CFR 122.44(f).

G25. COMPLIANCE SCHEDULES

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.