

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
PROPOSED WASTE DISCHARGE PERMIT NO. WA-002465-1

**PORT OF SEATTLE  
SEATTLE-TACOMA INTERNATIONAL AIRPORT**

**RESPONSE TO COMMENTS**

Public Meeting Held:  
Criminal Justice Training Center  
Burien, WA  
March 31, 2003

Public Hearing Held:  
Criminal Justice Training Center  
Burien, WA  
March 31, 2003

*Prepared and Compiled by Ed Abbasi, P.E.*

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## INTRODUCTION

The Department of Ecology has issued National Pollutant Discharge Elimination System (NPDES) Permit No. WA-002465-1 to the Port of Seattle for discharge of treated industrial wastewater associated with airport industrial activities and general stormwater runoff, and construction runoffs from Seattle-Tacoma International Airport (SEATAC Airport).

Public Notice of Application (PNOA) was published on **September 4, 2001; September 11, 2001; July 3, 2002; and September 10, 2002 in the *Seattle Times*** to inform the public that an application had been submitted and to invite comment on the reissuance of the permit.

The Department published a Public Notice of Draft (PNOD) on **February 28, 2003, in the *Seattle Times and King County Journal*** to inform the public that a draft permit and fact sheet were available for review.

A Public Meeting was held at the **Burien Criminal Justice Training Center Main Auditorium on Monday, March 31, 2003**, for the public to ask questions and find out more about the permit, and to receive formal public testimony regarding the draft permit. Public Notice of the public meeting and public hearing were published with the Public Notice of Draft. **The written comment period on the permit closed 21 days after the public hearing on April 21, 2003.**

As a result of questions and concerns raised in the public meeting, public hearing, and written comments, the draft permit was reexamined and some revisions were made to the permit and fact sheet. This Responsiveness Summary is intended to reflect substantive comments, concerns, and recommendations on the proposed permit raised during the public hearing and written comment period, and to state the Department of Ecology's response to those same substantive comments, concerns, and recommendations.

## ORGANIZATION OF THE RESPONSIVENESS SUMMARY

Letters in response to the draft permit and comments made in the public hearing may have contained general comments, similar questions, or addressed similar issues with the draft permit. We have organized this Responsiveness Summary to respond to each individual and distinct comment. The comments letters and transcript have not been attached to this Responsiveness Summary in order to conserve paper and mailing costs and in keeping with Washington State's sustainability goals. The comment letters and emails received during the comment period along with the transcript of the comments made during the public hearing are available for viewing at the Department of Ecology's Northwest Regional Office, 3190 160<sup>th</sup> Avenue SE in Bellevue, WA [call (425) 649-7190 to make an appointment] and at the Burien Public Library. Copies of these items can be obtained upon request and upon payment of necessary fees.

## **ACRONYMS**

AKART – All known, available and reasonable methods of prevention and treatment

ACC – Airport Communities Coalition

ACEC – Acute critical effluent concentration

AOMA – Airport Operations and Maintenance Area

BM P – Best Management Practices

BOD – Biochemical oxygen demand

BOD<sub>5</sub> – Five day biochemical oxygen demand

CASE – Citizens Against Airport Expansion

CCEC – Chronic critical effluent concentration

CWA – Clean Water Act

DAF – Dissolved air flotation

DMR – Discharge monitoring report

DO – Dissolved oxygen

FOG – Fats, oil and grease

IWS – Industrial wastewater system

IWTP – Industrial wastewater treatment plant

LAET – Lowest apparent effects threshold

MGD – million gallons per day

MTCA – Model Toxics Control Act

NPDES – National Pollutant Discharge Elimination System

POS – Port of Seattle

RCAA – Regional Commission on Airport Affairs

RCW – Revised Code of Washington

RPZ – Runway protection zone

SDS – Stormwater drainage system

SEPA – State Environmental Policy Act

SWPPP – Stormwater Pollution Prevention Plan

TBD – To be determined

TPH – Total petroleum hydrocarbons

WET – Whole effluent toxicity

## RESPONSE TO QUESTIONS AND COMMENTS

### Port of Seattle:

**Response to comments. These responses are following similar issue numbers as appeared in the original public comments document.**

#### **Part I:**

- 1) The permit shall be changed to incorporate the comment.
- 2) The applicability and compliance date of the proposed BOD<sub>5</sub> limits shall remain unchanged with exception of the monthly average limit. The Port of Seattle consulting engineer and the Port's engineer in a meeting with Ecology, prior to approval of the AKART Engineering Report, clearly expressed the proposed technology ability to meet the daily maximum limit and also the monthly average limit as presented in the proposed permit. As stated in the permit, the daily maximum limit is AKART, but the monthly average limit is BPJ based on aforementioned confirmation. The BPJ is an appropriate way of setting limits in such cases. However, in this particular case, the monthly average limit may be replaced with the U.S. EPA, Multi Sector General Permit recommendation. The monitoring was adjusted to exclude monthly average limit, but to include benchmark monthly maximum monitoring cutoff concentration for BOD and COD per EPA's guideline. A new condition shall also be added in the permit to require the Permittee to modify its SWPPP annually to implement new pollution prevention measures to ensure meeting the benchmark cutoff concentrations in case of its consistent exceedances. The benchmark cutoff concentration is monthly averages, and for the Air-Transportation Industry as indicated in the EPA, MSGP documents, the BOD and COD concentration shall be 30 mg/L and 120 mg/L, respectively.

The monitoring frequency shall be based on 24-hour composite samples and samples shall be taken once per week. The daily maximum limit shall remain the same. Any exceedances of the daily maximum limit will be considered violation of this permit. Exceedances of the benchmark monthly maximum monitoring cutoff concentration will not be a violation of this permit but must be considered by SWPPP. The annual update of the SWPPP must address the benchmark exceedances and shall provide viable options to improve and bring the IWTP effluent quality to below the benchmark criteria within a reasonably shortest practicable time.

The language in footnote "c" was modified to six months after the AKART construction is completed.

- 3) The pH shall stay the same.
- 4) The permit shall be changed to incorporate the comment.

- 5) The week is defined as Monday through Sunday in this permit. When the treatment plant is operated for less than 7 days during the week (i.e., 6, 5, 4, 3, 2, or just 1 day), taking one sample per week does not seem to be impossible.
- 6) Reporting of oil and grease in  $\mu\text{g/L}$  is not an error. However, it is changed to  $\text{mg/L}$  but the sampling frequency remains the same.
- 7) Agreed. Changes shall be made accordingly.
- 8) The acute and chronic toxicity testing shall be performed according to the proposed permit. However, sampling shall be taken when the effluent BOD concentration is at, or below,  $250 \text{ mg/L}$  to simulate post AKART situation.
- 9) A more definitive date is more preferable. However, the submittal dates may be moved ahead to give the Permittee more preparation time.
- 10) Changes shall be made accordingly.
- 11) The permit shall be changed to incorporate the comment.
- 12) The permit shall be changed to incorporate the comment.
- 13) When Ecology approved the Port of Seattle proposed AKART Engineering Report and its amendment, it clearly explained that the proposed AKART shall be implemented irrespective of the third runway project completion date. In fact, the AKART approval letter said, “**The proposed AKART shall be implemented irrespective of the third runway project completion date.**” This permit is consistent with the basis by which the document was approved. Considering the fact that the AKART implementation schedule was originally scheduled for completion in 2004, we do not believe the provisional approval was excessive and unreasonable. Therefore, further delay is not justifiable.

#### **Part II – Nonconstruction Stormwater Runoff:**

- 14) Discharges to the state’s water with potential to violate water quality must be limited, and eventually eliminated. The nonconstruction stormwater runoffs from the Port of Seattle general areas are potentially contaminated and may exceed the water quality standards. The receiving waters where these outfalls are discharging into are considered waters of the state, and therefore, those outfalls must comply with the water quality criteria. Since we do not have any AKART determination and no mixing zones granted yet and there is no appropriate BMPs in place yet; one time exceedance of the criteria is adequate to justify having the reasonable potential to violate water quality criteria. The Port must comply with the Pollution Control Hearing Board (PCHB) requirements to ensure appropriate installation of BMPs, or enhanced BMPs, where necessary. As for the effluent limits, these limits are actually water quality-based limits which are based on hardness of  $100 \text{ mg/L}$  as  $\text{CaCO}_3$ . We based these effluent limits on Best Professional Judgment (BPJ) since site specific hardness has not been determined yet. The Port may develop site specific hardness for the receiving waters and may evaluate the mixing zones should they wish to have site specific water quality-based effluent limits.

This permit may be reopened at any time to accommodate the Port with site specific effluent limits. However, if this is the case, a report shall be submitted to the Department in advance with adequate time to review prior to the compliance schedule date, as appeared in Section S9 (B). Additionally, if the Port can show consistent compliance for any outfall for twelve (12) months, the Port may request monitoring reduction for these outfalls.

- 15) The purpose of this language is to prevent dilution. If the current language is not practical and causes the Port to sample Port's and non-Port's effluent mixtures, the Port should separate the Port's stormwater flow from that of other non-Port's flow as soon as possible.
- 16) The two sections are modified to be more consistent. In case of outfall consolidations, permit may have to be modified. In such case, the Department may have to public notice the modified permit to announce the new outfalls prior to publishing it.
- 17) To accommodate your request, under Table 1, Part II, we can include a similar language as footnote #1 of Table 2, Part II, to give the Port flexibility for reduced monitoring in case of outfalls with less likelihood of industrial contaminations.
- 18) The once/month frequency was selected to ensure consistency with other monitoring frequencies specified in this permit, to reduce confusion, and to better serve the citizens in case of public disclosure requests. We do not believe taking three samples per quarter is representative if the Permittee prefers not to sample the first few storms of the season, and instead prefers to take three samples consecutively during the latter days of the quarter. Sampling once per month is more likely to be accurate representation of the stormwater discharges to the receiving water.
- 19) We have included under Table 1, Part II, a modified version of the language as footnote #1 of Table 2, Part II, to provide the Port with more flexibility and to account for reduced frequency.
- 20) The permit shall be changed to incorporate the comment.
- 21) In case of stormwater pollution, turbidity is an appropriate water quality parameter.
- 22) The sampling type for turbidity monitoring is grab.
- 23) The sample type for oil and grease is appropriate. However, the analytical method was clearly specified.
- 24) A footnote shall be inserted and a sentence will be included to indicate that the total glycol is the sum of ethylene and propylene glycol. The footnote shall include appropriate language to indicate that the monitoring shall be conducted during deicing or anti-icing months.
- 25) The permit shall be changed to incorporate the comment.
- 26) The permit was changed to indicate that the "point of discharge" is the indicated receiving water, which is "Lake Reba prior to discharge to the Miller Creek."
- 27) There will be adequate language to provide you with an opportunity for reduced frequency.

- 28) Please refer to our response to issue no. 18. The Department is obligated to respond to public disclosure requests promptly and accurately. The purpose of this section is to ensure the Department is responsive to those inquiries in a most efficient manner.
- 29) The language in the permit is clear.
- 30) The permit shall include a language to define “no discharge event” as per the Section S1.C3 and 4.
- 31) The permit shall be changed to incorporate the comment.
- 32) The permit shall be changed to incorporate the comment.
- 33) The permit shall be changed to incorporate the comment.
- 34) The permit shall be changed to incorporate the comment.
- 35) The permit shall be changed to incorporate the comment.
- 36) The permit shall be changed to incorporate the comment. The DMR forms shall be received no later than the 30<sup>th</sup> day of the month following the completed monitoring period.
- 37) The permit shall be changed to incorporate the comment.
- 38) The current permit language will be modified to ensure that it is applicable to stormwater management.
- 39) The current language in the proposed permit appears to be adequate. It will be partially adjusted for further clarification.
- 40) The permit language was partially adjusted to allow more flexibility to the Permittee to not require BIBI for the receiving waters where, due to physical limitation of sampling locations, or other factors, the scientific authenticity of the sample may become questionable. However, the Permittee must scientifically and technically justify their decision.
- 41) The permit language is flexible to provide the Permittee with that choice.
- 42) The permit shall be changed to incorporate the change to the maximum extent.
- 43) If the physical location of any applicable outfalls prohibits appropriate sampling, the pre-sampling study plan must clearly describe it. The pre-sampling plan must also propose an alternative sampling location(s) to assess discharges from this outfall. Not sampling of an outfall without providing any scientific and technical justification may not be an alternative.
- 44) There is no reason to believe that the runoff has no reasonable potential to exceed water quality criteria. The annual stormwater report (2001) did indicate presence of glycol in majority of samples. Secondly, lead is typically found in almost all general runoff and the Port’s runoffs cannot be an exemption. Temperature is also a parameter of interest in stormwater studies and its impact must be understood.



- 45) The permit shall be changed to incorporate the comment to the maximum extent.
- 46) The language is adequate.
- 47) The permit shall be changed to incorporate the comment to the extent possible.
- 48) The permit shall be changed to incorporate the comment to the extent possible.
- 49) The intent of the draft permit was to conduct Sublethal Toxicity Tests Using Early Life Stages of Salmonid Fish. The permit will be modified to incorporate this change.
- 50) This language was not simply transferred from the boiler plate. Appropriateness of this language was checked earlier by the Department's Toxicologist, and modified appropriately before it was transferred. However, we are in agreement with your comment that this language was included into the permit as a direct result of the decision made by the PCHB.
- 51) The permit shall be changed to incorporate the comments to the extent possible.
- 52) The dates as presented under Section S9 are final with minor adjustment to provide further flexibility. These dates are developed to ensure design and development and implementation of adequate BMPs to ensure compliance with no ambiguity. However, under Section S9 (C) the requirement for submittal of a draft engineering report was deleted to incorporate more flexibility into the compliance schedules.
- 53) The language is adequate.
- 54) According to the EPA, "the Water Effect Ratio (WER) is a criteria adjustment factor accounting for the effect of site specific water characteristics on pollutant bioavailability and toxicity to aquatic life." To accommodate your comment, the draft permit language may be modified to read as "Conduct Site Specific Study, e.g., Water Effect Ratio, which is a criteria adjustment factor accounting for the effect of site specific water characteristics on pollutant bioavailability and toxicity to aquatic life."
- 55) Specific dates are more appropriate. This date may be slightly adjusted if the final permit issuance is delayed significantly.

**Part III – Construction Stormwater:**

- 56) The permit shall be changed to incorporate the comment.
- 57) The permit shall be changed to incorporate the comment. Footnote will be added to the table to account for the change.
- 58) The permit shall be changed to incorporate the comment.
- 59) The permit shall be changed to incorporate the comment.

- 60) The permit shall be changed to incorporate the comment to the extent possible. This permit authorizes discharges of construction stormwater runoff and dewatering water at Miller Creek, Des Moines Creek, Walker Creek, and Gilliam Creek.
- 61) Effluent limitation for turbidity, in case of nonchemically treated construction runoffs, is justifiable. The intent of the sampling is in-stream sampling, i.e., at the point of complete mix. The point of complete mix may be determined via standard mixing modeling using models such as Rive Plume for side bank discharge.
- 62) The AKART is often determined based on current practices. There are cities in this state enforcing similar turbidity limits for the chemically treated construction runoff. Also, there are construction companies in this state who are meeting this limit easily. However, to ensure compliance and to allow the Permittee to incorporate other technologies, or to improve the current technology, the daily maximum per batch limit was changed to daily maximum average limits. This limit will be based on the number of treated batches per day. This decision is based on best professional judgment of the permit writer.
- 63) Effluent limitation for oil and grease is justifiable, and the limit is appropriate.
- 64) As above.
- 65) Effluent limitation for arsenic is justifiable. The sites are on the list of the potentially contaminated sites. The sampling and testing are required to monitor and limit this contaminant potential release into the receiving water. However, the monitoring and testing can be limited to undisturbed areas being considered for construction activities. The permit will be modified to incorporate this change.
- 66) Effluent limitation for pH is justifiable. The intent of the sampling is in-stream sampling. In case of nonchemically treated construction runoffs, the downstream sampling location shall be at the point of complete mix for turbidity, as determined by the Port and as explained above. In case of chemically treated construction stormwater runoffs, the pH monitoring shall be at the end of the pipe.
- 67) The construction activities on this site are not unique and therefore, introducing a three-year study will not serve any purpose but delay the compliance.
- 68) The permit shall be changed to incorporate the change.
- 69) The Table 3 of Part III was modified to incorporate the comment.
- 70) The permit shall be changed to incorporate the following changes. The intent of the sampling is in-stream sampling, i.e., at the point of complete mix. The point of complete mix may be determined using standard mixing modeling techniques. This change was incorporated under Table 2 of Part III.
- 71) Please see above.
- 72) Partially agreed with your comment. The permit shall include the following note: arsenic monitoring is only required for construction stormwater generated from historically undisturbed locations. Monitoring of arsenic on a particular project site can be discontinued after three months of consistent compliance with arsenic effluent limit.

- 73) The permit shall be changed to incorporate the change.
- 74) Visible sheen shall not be used as the unit for Total Petroleum Hydrocarbons (TPH).
- 75) This permit applies to the construction runoffs irrespective of how it may reach the receiving water – via a pipe, or sheet flow. Accepting this comment may imply that disposal of the construction runoffs to the receiving water via sheet flow is permissible under this permit, which is not.
- 76) Monitoring shall remain unchanged.
- 77) Reporting shall remain unchanged.
- 78) The permit shall be changed to incorporate the comment.
- 79) The permit shall be changed to incorporate the comment. However, you need to attach a spreadsheet summarizing the sampling results during the previous month showing the date and magnitude of exceedances.
- 80) The permit shall be changed to incorporate the comment.
- 81) The permit shall be changed to incorporate the comment.

## **Response to RCAA:**

**Response to comments. These responses follow similar order as they appeared in the original public comments document.**

### **Fact Sheet:**

- 1) The fact sheet shall be changed to incorporate the comment. The fact sheet will contain a discussion to cover the compliance status of the Port of Seattle with the current NPDES permit.

### **Permit – IWS:**

#### ***General Comments***

- 2) The Port under their 1998 permit was obligated to conduct AKART to identify the required technology that would limit its BOD load to the Puget Sound. Under this permit, the AKART will be implemented. The AKART project is a massive project that cannot be built overnight. It needs appropriate planning for engineering design and review to ensure its long-term success. The permit contains definitive and enforceable deadlines to ensure proper AKART implementation.

#### ***S1. Discharge Limitations***

- 3) This permit prohibits any discharges from the IWS basin to the local freshwater stream that may cause exceedance of the water quality criteria and any such actions may be subject to enforcement.

#### ***S2. Monitoring Requirements***

- 4) The flow weighted composite is an appropriate sampling technique for assessing the stormwater impact.

#### ***S3. Acute Toxicity***

- 5) The draft permit requires the Port of Seattle to comply with Whole Effluent Toxicity (WET) Washington Administrative Code, WAC 173-205. This requirement has been consistently applied to all permittees throughout the state.

#### ***S6. Compliance and Maintenance***

- 6) The Comprehensive Receiving Water and Stormwater Runoff Study, under Part II, were designed to study impact of the Port general runoff to the receiving water. The monitoring parameters under Section S.6 will be modified to include BOD and COD. The Benthic Index of Biological Integrity (BIBI) shall be conducted for outfalls discharging to waters of the state. However, applicability of this test quite limited and it shall be conducted where the physical characteristics and other factors associated with each outfall allows such testing. The sampling plan shall identify such limitations and provide alternatives.

As for the damages to the ecosystem, the purpose of the reasonable potential evaluation is to understand whether the discharge has a reasonable potential to exceed water quality criteria, and hence any damages to the ecosystem.

***S10. Compliance Schedule – IWS***

- 7) The AKART requirement of 1994 was submitted to the Department in 1995. This report went through extensive review and, it subsequently amended in April 1998 and again amended in April 2002. Among many reasons, one reason could be partially due to the Department of Ecology inadequate staffing. However, the AKART is at its final stage and the permit contains nonnegotiable deadlines for its completion.

**Part II – Nonconstruction Stormwater Runoff:**

***General Comments***

- 8) Based on historical evidences, Department of Ecology has made this conclusion that the Northwest Pond is waters of the state. As a result, the list of the direct discharging outfalls was expanded to include those outfalls discharging to the Northwest Pond. Those newly added outfalls are SDS2, SDS3, SDS5, SDS6, and SDS7.

***S3. Compliance with Standards***

- 9) Those four outfalls you are referring to, and the others that we have already added to the list, have effluent limits which are based on the Best Professional Judgment (BPJ) of the permit writer, which are adopted from the Multi-Sector General Permit issued by the EPA for industrial general runoffs. They are, in fact, water quality-based limits and are evaluated based on assumed receiving water hardness of 100 mg/L as CaCO<sub>3</sub>.

***S4. Operation and Maintenance***

- 10) As appeared in the permit, the Department will study the bypass request prior to granting any permission (or issuance of the administrative order). As said earlier, bypass here is defined as bypass of the treatment system. It does not mean bypass of the intended receiving water.

***S5. Stormwater Pollution Prevention Plan (SWPPP) for Industrial Facilities***

- 11) The Port shall continue to send all submittals to the Burien and Sea-Tac libraries as before. The fact sheet will have a discussion on this regard.

***S6. Comprehensive Receiving Water & Stormwater Runoff Study***

- 12) Please refer to my earlier response for BIBI for the Des Moines Creek. About arsenic, we believe the arsenic, if present as a result of the dust deposition, may exist within the top layer of the soil. Therefore, it is reasonable to expect the Port to test for arsenic contamination when they are performing construction activities on an undisturbed site.

The issue of Port and non-Port's discharges need be clarified. This issue is very important and quite complicated. In regards to sampling and characterizations of the discharge, the testing need be performed over a reasonably long period of time to ensure statistical significance. The apparent delay and long schedule is primarily due to extended sampling and characterizations process.

Sublethal toxicity testing shall be conducted for all outfalls discharging directly to the waters of the state. The permit contains specific implementation schedule dates for certain activities. In case of TI/RE, since it is not known when noncompliance may occur, assigning a specific date may not be appropriate.

### ***S9. Compliance Schedules***

- 13) The compliance schedules were carefully designed for successful implementation and completion of AKART and all other BMPs required under this permit. Due to enormity of this project, it is not possible to make it any earlier without undermining the design integrity of the project.

## **Part III – Construction Stormwater Discharge Limitations and Monitoring:**

### ***General***

#### ***S1.A.1 Construction Stormwater Runoff Outfalls and Effluent Limitations***

- 14) We have provided, in Part III of the permit, a general description and direction for the locations of various construction outfalls for easier identification of outfall locations. However, an accurate map detailing all outfalls is not available at this time.

#### ***S1.A.2 Effluent Limitations***

- 15) It is very unusual to include such limits for construction sites. The typical pollutants associated with construction runoffs are turbidity, pH, and oil & grease. The permit has also effluent limits for the arsenic, which is as an exception. It is included here since it is the pollutant of concern due to the Asarco deposition.

### ***Additional Comments***

- 16) The permit shall require the Port of Seattle to submit their annual stormwater report to the Department.

## **Response to Smith & Lowney, P.L.L.C.:**

**Response to comments. These responses follow similar order as they appeared in the original public comments document.**

### **Fact Sheet:**

- 1) The fact sheet shall be changed to incorporate your comment.

### **Part I – Industrial Wastewater Provisions:**

#### ***A. Effluent Limitations***

- 2) The compliance schedules were carefully designed for successful implementation and completion of AKART and all other BMPs required by this permit. Due to the enormity of this project, expecting the Port earlier compliance may be undermining the design integrity of the massive project. The reason for delay to comply with the previous schedule could partially be due to lengthy review process, and most likely, due to the Department's inadequate staffing. However, the AKART is at its final stage now and the permit contains nonnegotiable and enforceable deadlines for its completion.
- 3) Please see our response to the Port of Seattle comment number 2. According to EPA, MSGP, the BOD and COD are to be used as benchmark cutoff monthly average concentrations and this permit is employing a similar approach.
- 4) The mixing zones are usually applicable in case of toxic pollutants with near-field effects. According to IWS Engineering Report, Addendum #2, "The effluent mixing zone study demonstrated that a daily average effluent limit of 250 mg/L BOD will produce maximum oxygen sag of only 0.05 mg/L, well within the requirements of the water quality standard of 0.2 mg/L." Also, it was shown that it takes up to 1000 mg/L of BOD to have oxygen sag of about 0.2 mg/L, which would take about four (4) days to attain after release from the diffuser. We agree with you about granting the mixing zones to the Port prior to AKART implementation. Please note that granting of the mixing zones prior to AKART implementation is not to forgo the final compliance schedule, which is the primary focus of this permit. Had we not granted the mixing zones, the permit would have been issued, per your suggestion, with interim effluent limits and with a compliance schedule for meeting the final effluent water quality-based limits. Please note that issuing the permit with an interim effluent limit, which in this case would have been performance-based limits, would not have served water quality since deriving performance-based effluent limits based on such a highly variable data set would have resulted in unrealistic limits. In order to protect the water quality against this shortcoming, we have required the Port to continue with whole effluent toxicity (WET) testing when the effluent BOD concentration is at, or below, 250 mg/L to simulate post AKART situations. If, in case, any toxicity observed, it is, however, duty of the Permittee to follow up the procedure as described in the permit to identify and eliminate sources of toxicity. We believe following this procedure is not only more appropriate for this situation, it is even more protective than issuing the permit with unrealistic interim effluent limits.

The WAC 173-201A-160-4, **Allowance for compliance schedules**, discusses this issue.

It reads as follows:

- “(a) Permits, orders, and directives of the department for existing discharges may include a schedule for achieving compliance with water quality criteria contained in this chapter. Such schedules of compliance shall be developed to ensure final compliance with all water quality-based effluent limits in the shortest practicable time. Decisions regarding whether to issue schedules of compliance will be made on a case-by-case basis by the department. Schedules of compliance may not be issued for new discharges. Schedules of compliance may be issued to allow for:
- (i) construction of necessary treatment capability;
  - (ii) implementation of necessary best management practices;
  - (iii) implementation of additional storm water best management practices for discharges determined not to meet water quality criteria following implementation of an initial set of best management practices;
  - (iv) completion of necessary water quality studies; or
  - (v) resolution of a pending water quality standards' issue through rule-making action.
- (b) For the period of time during which compliance with water quality criteria is deferred, interim effluent limitations shall be formally established, based on the best professional judgment of the department. Interim effluent limitations may be numeric or nonnumeric (e.g., construction of necessary facilities by a specified date as contained in an ecology order or permit).
- (c) Prior to establishing a schedule of compliance, the department shall require the discharger to evaluate the possibility of achieving water quality criteria via nonconstruction changes (e.g., facility operation, pollution prevention). Schedules of compliance may in no case exceed ten years, and shall generally not exceed the term of any permit.”

Failure of the Port of Seattle to meet the compliance schedule would put them in enforceable noncompliance status.

- 5) The critical condition is typically described for the water quality-based limits, such as for the toxic pollutants. In case of BOD, water quality-based limits may be derived when the receiving water is oxygen deficit, in which case, critical conditions may be defined. There is no reason to believe that the Puget Sound is oxygen deficit. Therefore, the BOD limit, in this case, is a technology-based limit and is based on AKART.
- 6) It is not believed that the Puget Sound is oxygen deficit. The typical maximum size of mixing zones in such a receiving water is about 200 feet from each diffuser port on each side plus the depth of the water over the discharge ports at Mean Lower Low Water (MLLW), or about 356 feet in this case. As indicated in the Engineering Report AKART Analysis, First Addendum (April 1998), based on the water quality modeling, the expected oxygen sag in the outfall plume, as it is being transported away from the outfall, is about 0.05 mg/L when the BOD<sub>5</sub> of the effluent is 250 mg/L and the receiving water natural oxygen concentration is at 7 mg/L. The maximum DO sag cannot be more than 0.2 mg/L [WAC 173-201A-30(1)(ii-B)]. The maximum daily limit of 250 mg/L is protective of the water quality and it would not cause loss of sensitive or important habitat, or substantially interfere with the existing or characteristic uses of the water body, or result in damages to ecosystem, or adversely affect the public health. Please also see number 4 above.



- 7) Considering the treatment technology employed by the Port, the Dissolved Air Flootation (DAF) uses polymer, which is the primary chemical in chemical treatment of turbidity. The polymer lowers the plant effluent turbidity considerably by coagulating the suspended material in the water.
- 8) There is no reason to believe that pH violates the water quality criteria considering the buffering capacity of the receiving water. The pH limit, as indicated in the permit, is based on technology-based limits. The pH limit of 6.5-8.5 is water quality criteria and it is to be met at the edge of the mixing zones.
- 9) The limit is for a composite sample, which is, in a way, daily average limits and the Permittee must report the maximum of these daily averages over a month. The Permittee will also be asked to report the number of times it exceeded daily average limit of 250 mg/L during each month.
- 10) As number 5 above.
- 11) The Whole Effluent Toxicity (WET) testing will help calibrate the computer modeling-based predetermined mixing zones (and as a result, the dilution factors, i.e., ACEC and CCEC). If WET testing fails at this ACEC and CCEC, the size of the mixing zones shall be reevaluated. This may result in a new reasonable potential evaluation and different limits.
- 12) I disagree with you. I do not believe when two facilities share the same outfalls, and discharge similar pollutants, they must share similar effluent limitations. The Midway's limit is based on biological treatment system; whereas, the Port's treatment system is based on separation process. They do not have to be comparable.
- 13) The discrepancy will be corrected. The flow capacity of the outfall is about 12,500 gpm (18 MGD). The 8.3 MGD is the hydraulic capacity of the IWTP. Exceedance of 2500 gpm (or 3.6 MGD) will not be considered violation if combined flow from IWTP and Midway does not exceed 16.8 MGD, which is 90% of the 18 MGD.
- 14) The design criterion was modified.

***B. Monitoring Requirements***

- 15) The permit requires the Port to report daily maximum and monthly average. In addition, the total processed for the whole month shall also be reported.
- 16) Please refer to my response under number 3 above.
- 17) We can ask the Port, under Part II, to conduct the toxicity monitoring during deicing events. However, under Part I, the toxicity monitoring shall be conducted when the IWTP effluent BOD concentration is at, or below, 250 mg/L, which corresponds to post AKART BOD concentration.

***C. Compliance Schedule***

- 18) We will clarify the fact sheet to remove discrepancies between the permit and fact sheet.

**Part II – Stormwater Associated With Industrial Activity:**

- 19) The CSMP is the Port's stormwater management manual for their proposed constructions. This manual is a guideline and the Port should follow it for its construction activities. For new construction activities, the Port shall use the latest version of the State of Washington Stormwater Management Manual or its equivalent. We can only enforce the law, not a guideline. It is the Port's ultimate responsibility to update their guideline, to ensure compliance with provisions of this permit. The final effluent limits and compliance schedule will be used as an enforcement tool in this case.
- 20) This is outside the scope of this permit at this time. This matter will be discussed when the facilities are built, or when the Port is ready to discharge from these new facilities.

21) Comment noted.

***A. Effluent Limits***

22) Comment noted.

23) The Northwest Pond is waters of the state. After further review of the historic documents, Ecology has determined that the Northwest is waters of the state and it shall be protected accordingly. Therefore, it has expanded the list of the direct discharging outfalls to include those outfalls discharging to Northwest Ponds. Those newly added outfalls are SDS2, SDS3, SDS5, SDS6, and SDS7.

24) Please see our response to number 23 above.

25) Please see our response to number 23 above.

26) Please see our response to number 23 above.

27) Please see our response to number 23 above.

28) Please see our response to number 23 above.

29) We agree with you entirely. This permit contains enforceable compliance condition to ensure compliance.

30) The permit contains a compliance schedule for effective design and implementation of the BMPs/enhanced BMPs as required by the PCHB.

31) The permit contains relevant effluent limits for all outfalls directly discharging to the waters of the state.

32) The permit shall have a section requiring the Port to report annual usage of anti-icing and deicing chemical used on their site.

***Reporting and Record Keeping Requirements***

33) The permit shall have a section requiring the Port to report annual stormwater flow accounting for the flows from Part I, II, and III.

34) The flow weighted composite, or Event Mean Concentration, is appropriate in assessing the impact of a stormwater event to receiving water.

- 35) This permit does not control shear and drip. It simply states shear and drip is not considered industrial wastewater. If the runoffs from these areas that receive shear and drip causes contamination of the receiving water to the extent that causes water quality criteria exceedances, that discharge is in violation of this permit irrespective of its source.
- 36) This information is beyond the scope of this permit.
- 37) Comment noted. Permit will be clarified to further explain the sampling locations. The intent of the permit is to sample prior to its entering the receiving water but after receiving appropriate treatment. Please note that these sampling are not in-stream sampling.
- 38) Comment noted. Site here may be defined as the intended drainage, including applicable BMPs.
- 39) Comments noted. Permit will be clarified to ensure the bypass overflow shall be sampled properly and reported accordingly.

***C. Stormwater Pollution prevention Plan (SWPPP) for Industrial Facilities***

- 40) The permit has instruction for the Port to update their SWPPP as it is necessary. The Department reserves the right to ask for these documents during inspection and/or any other time.
- 41) The BMPs for the Port's proposed construction is based on CSMP. Please also see my response to number 19.

***D. Comprehensive Receiving Water & Stormwater Runoff Study***

- 42) The main purpose of this section is to verify the impact of the stormwater to the area creeks. If the study indicates impact is occurring, or has occurred, the permit may be reopened to incorporate additional requirements and compliance schedule. The compliance with the standards will be verified via effluent limits and other means.
- 43) Please refer to our response above to COD monitoring requirements.
- 44) All outfalls discharging to the waters of the state are to be considered be included in the study.
- 45) Outfalls discharging into the Des Moines Creek are to be included in the study.
- 46) The flow weighted composite, or Event Mean Concentration, is appropriate in assessing impact of a stormwater event. The sampling of the first flush, i.e., the rising limb of the hydrograph, may only indicate concentration during this time period but it will not elaborate on total impact of an event, which is of interest here.
- 47) The delay is mainly due to the extended sampling and characterizations. Sampling and characterizations of the discharge must be performed over a reasonably long period of time to ensure statistical significance.

***E. Acute Toxicity***

- 48) The permit will emphasize sampling, which shall be collected during storm events to ensure representative sample collections and testing.

- 49) All outfalls discharging directly into the waters of the State, including SDS3, will require testing and monitoring.
- 50) Please see the pertaining section in the permit. There is adequate language to direct the Permittee in case the whole effluent toxicity testing fails.

**F. Sublethal Toxicity**

- 51) The permit will emphasize sampling, which shall be collected during storm events to ensure representative sample collections and testing.
- 52) All outfalls discharging directly into the waters of the State, including SDS3, will require testing and monitoring.
- 53) Please see the pertaining section in the permit. There is adequate language to direct the Permittee in case the whole effluent toxicity testing fails.

**G. Compliance Schedule**

- 54) For all those outfalls discharging directly to the waters of the state, the intent of the BMP is compliance with the water quality criteria in accordance with the compliance schedule presented in Section S9B. Those outfalls discharging indirectly to the waters of the state via Lake Reba, the intent is to install BMPs using these effluent limits as benchmarks for design basis. The intent of using benchmarks is to have uniform and adequate sizing criteria for various BMPs to ensure eventual compliance with the water quality criteria.
- 55) The compliance schedules were carefully designed for successful implementation and completion of AKART and required BMPs under this permit. Due to the enormity of this project, expecting compliance earlier may undermine the design integrity of the project.
- 56) December 2007 is the date set in Section S9 (B), Part II, as compliance deadlines for meeting the effluent limits. Under Section S9(C), Part II, the date for complete installation of approved BMPs is July 31, 2007. The primary intent of this permit is to have the Permittee install appropriate pollution prevention devices to ensure water quality criteria is met in the shortest practicable time. In response to your question concerning more frequent monitoring, we believe monitoring more frequently than required is excessive and may not be as helpful as having the Port actually install appropriate source control devices.
- 57) Discrepancy will be clarified.

**Construction – Related Stormwater**

- 58) The chemical used is polymer. It is scientifically proven that excess amount of polymer will contribute to excessive turbidity. Meeting the limit as specified for chemically treated stormwater runoff will ensure prevention of excessive polymer usage.

### **Conclusion**

- 59) The main purpose of water quality criteria is to prevent water quality degradation. This permit is primarily a water quality-based permit in most cases. As indicated in WAC 173-201 A, the water quality is to be maintained and met at the edge of the mixing zones. This is to say, the water quality may be exceeded within the boundaries of acute, or chronic zones, but it shall be met at the edge of the boundary irrespectively. Compliance with water quality-based effluent limits presume the antidegradation policy has been met. The WAC 173-201A-070 reads in part, “Antidegradation. The antidegradation policy of the state of Washington, as generally guided by chapter 90.48 RCW, Water Pollution Control Act, and chapter 90.54 RCW, Water Resources Act of 1971, is stated as follows:
- (1) Existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses shall be allowed.
  - (2) Whenever the natural conditions of said waters are of a lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria.
  - (3) Water quality shall be maintained and protected in waters designated as outstanding resource waters in WAC 173-201A-080.
  - (4) Whenever waters are of a higher quality than the criteria assigned for said waters, the existing water quality shall be protected and pollution of said waters which will reduce the existing quality shall not be allowed, except in those instances where:
    - (a) It is clear, after satisfactory public participation and intergovernmental coordination, that overriding considerations of the public interest will be served;
    - (b) All wastes and other materials and substances discharged into said waters shall be provided with all known, available, and reasonable methods of prevention, control, and treatment by new and existing point sources before discharge. All activities which result in the pollution of waters from nonpoint sources shall be provided with all known, available, and reasonable best management practices; and
    - (c) When the lowering of water quality in high quality waters is authorized, the lower water quality shall still be of high enough quality to fully support all existing beneficial uses.
  - (5) Short-term modification of water quality may be permitted as conditioned by WAC 173-201A-110.”

In addition, the WAC 173-201A-160 (4) reads in part “Allowance for compliance schedules –

(a) Permits, orders, and directives of the department for existing discharges may include a schedule for achieving compliance with water quality criteria contained in this chapter. Such schedules of compliance shall be developed to ensure final compliance with all water quality-based effluent limits in the shortest practicable time. Decisions regarding whether to issue schedules of compliance will be made on a case-by-case basis by the department. Schedules of compliance may not be issued for new discharges. Schedules of compliance may be issued to allow for: (i) construction of necessary treatment capability; (ii) implementation of necessary best management practices; (iii) implementation of additional storm water best management practices for discharges determined not to meet water quality criteria following implementation of an initial set of best management practices; (iv) completion of necessary water quality studies; or (v) resolution of a pending water quality standards' issue through rule-making action.

(b) For the period of time during which compliance with water quality criteria is deferred, interim effluent limitations shall be formally established, based on the best professional judgment of the department. Interim effluent limitations may be numeric or nonnumeric (e.g., construction of necessary facilities by a specified date as contained in an ecology order or permit).

(c) Prior to establishing a schedule of compliance, the department shall require the discharger to evaluate the possibility of achieving water quality criteria via nonconstruction changes (e.g., facility operation, pollution prevention). Schedules of compliance may in no case exceed ten years, and shall generally not exceed the term of any permit.”

We believe this policy has been considered in writing this permit. We have established a compliance schedule to ensure installation of AKART.

## **Response to Senator Ms. Karen Keiser – 33<sup>rd</sup> Legislative District:**

**Response to comments. These responses follow similar order as they appeared in the original public comments document.**

This permit is an NPDES, or a 402 permit. The 401 permit and the Ecology's testimony are already well published. The fact sheet discusses major conditions and requirements of the permit and their legal basis. The 401 and 402 permits are two separate permits and were both written to have the Port comply with the water quality criteria but issues in each permit may be different. However, there will be a minor discussion included in the fact sheet to ensure clarity.

### **Section I – Industrial Wastewater System:**

The deadline to complete the project is December 2006. The Port has six (6) months to test the newly installed facility. The deadline to comply with the AKART is July 2007. It is not 2008. This is an enforceable deadline.

### **Section II – Nonconstruction Stormwater Runoff:**

The design, installation, and implementation of these outfalls require time. The compliance schedules were carefully designed for successful implementation and completion of AKART, and all other BMPs required under this permit. Due to enormity of this project, it is unreasonable to expect compliance any sooner without undermining its design integrity.

### **Section III – Construction Stormwater Discharge Limitations and Monitoring:**

The primary concern in stormwater management is acute criteria since chronic criteria require continuous discharge of at least four days. Requiring arsenic chronic water quality criteria is unnecessary since having four days of continuous flow is unusual for stormwater outfalls. About cadmium and lead, sampling does not appear to be warranted since the major contaminant here is arsenic. Lead and cadmium may be present as a result of arsenic. If arsenic limits are violated, the Port may be asked to also sample for lead and cadmium. Based on preliminary sampling conducted by the Port of Seattle, the amount of arsenic leached out of the soil is unlikely to cause exceedances of water quality criteria.

## **Response to State Representative Mr. Dave Upthegrove, Assistant Majority Whip – 33<sup>rd</sup> District:**

**Response to comments. These responses follow similar order as they appeared in the original public comments document.**

The proposed permit contains requirements for proper design and installation of BMPs/enhanced BMPs with ability to prevent dissolved metal from entering the receiving water. The permit contains enforceable and definitive dates to ensure compliance.

### **Section I – Industrial Wastewater System:**

The deadline to complete the project is December 2006. The Port has six (6) months to test the newly installed facility. The deadline to comply with the AKART is July 2007.

### **Section II – Nonconstruction Stormwater Runoff:**

The design, installation, and implementation of these outfalls require time. The compliance schedules were carefully designed for successful implementation and completion of AKART, and all other BMPs required under this permit. Due to enormity of this project, expecting earlier compliance may undermine the design integrity of the project.

### **Section III – Construction Stormwater Discharge Limitations and Monitoring:**

The AKART for the construction stormwater runoff is flocculation. In this permit we referred to the construction stormwater treatment process generically as chemical treatment. However, where such treatment is necessary, the permit contains appropriate limits to ensure water quality protection. In response to your comment, the permit, Section Part III, was modified and clarified.

The primary concern in stormwater management is the acute criteria since chronic criteria require continuous discharge of at least four days. It is unlikely there will be four days of continuous flow, which is necessary for chronic criteria exceedance determination. Therefore, requiring arsenic chronic water quality criteria is unnecessary.

About cadmium and lead, since the major contaminant is arsenic, sampling does not appear to be warranted. Lead and cadmium may be present as a result of arsenic. If arsenic limits are violated, the Port may be asked to also sample for lead and cadmium. Based on preliminary sampling conducted by the Port of Seattle, the amount of arsenic leached out of the soil is unlikely to cause exceedances of water quality criteria, and therefore, presence of lead and cadmium is unlikely.



**Response to Individual Comments Received During the Hearing Conducted on March 31, 2003 and by Mail, or Email:**

Ms. Pat Pompayo: This is also response to your comments received by mail.

The compliance schedule we required of the Port is not unreasonable. The design, installation, and implementations of these outfalls require time. The compliance schedules were carefully designed for successful implementation and completion of AKART, and installation of all other BMPs required under this permit. Due to the enormity of this project, it is unreasonable to expect earlier compliance without undermining the design integrity of the project.

The Northwest Pond is considered waters of the state and therefore, those outfalls discharging to the Northwest Ponds were included to the list of direct discharging outfalls. These outfalls must comply with the effluent limits as specified in the permit.

Mr. Stewart Weiss: This is also response to your comments received by mail.

As you referred to the pipeline to Puget Sound, the current outfall that is shared with the Midway Sewer District does exactly what you are asking. This pipeline was in place to transfer the treated effluent from the IWTP to the Puget Sound. The primary purpose of the proposed permit is to eliminate potential discharge and runoffs to the area creeks. We believe this permit contains strong languages to achieve that. About putting water back to the aquifer, I agree with you, but I believe it must be focus of the next permit. I believe tertiary-treated water from Midway Sewer District can be reclaimed to compensate some of the creeks, lost water due to impervious surface formation, and other losses.

The Northwest Pond is considered waters of the state and therefore, those outfalls discharging to it were included to the list of direct discharging outfalls. These outfalls must comply with the effluent limits. This permit does not control shear and drip. It simply states that sheer and drip is not considered industrial wastewater. If the runoffs from the areas that receive sheer and drip convey contaminated stormwater to the waters of the state to the extent that causes water quality criteria, that discharge is in violation of this permit irrespective of its source.

Ms. Audrey Richter:

The compliance schedule we required of the Port is not unreasonable. The design, installation, and implementations of these outfalls and their associated BMPs require time. The compliance schedules were carefully designed for successful implementation and completion of AKART and all other BMPs required under this permit. Due to enormity of this project, it is unreasonable to expect earlier compliance without undermining the design integrity of the project.

The Northwest Pond is considered waters of the state and therefore, those outfalls discharging to it were included to the list of direct discharging outfalls. These outfalls must comply with the effluent limits.

Mr. Carl Nealy:

The primary focus of NPDES permit is to eliminate pollutants. I agreed with your statement about water quantity. However, in regard to putting the water back into the aquifer, I believe this matter should be the focus of the next permit. I believe tertiary-treated water from Midway Sewer District can be reclaimed to compensate some of the creeks' lost water due to impervious surface formation and other losses.

Mr. John Merz:

There will be human health reasonable potential calculations conducted and the result will be reflected in the fact sheet. Our original preliminary assessment did not reveal any conclusive evidence of presence of any reasonable potential for human health criteria exceedances. Please note that in order for us to make a determination of whether water quality or human health-based criteria is exceeded, we need to have a basis. In case of water quality criteria, the basis is parameters specified under the WAC 173-201A. Without such basis, any determination may be perceived arbitrary.

The AKART project is to transport contaminated runoffs from IWTP to the Renton, King County, Sewage Treatment Plant (STP) for further processing. The diversion to the Renton STP shall take place when the BOD concentration of the IWTP effluent is greater than 250 mg/L.

Mr. Mike Anderson: This is also response to your comments received by mail.

The compliance schedule is not unreasonable. The design, installation, and implementations of these outfalls require time. The compliance schedules were carefully designed for successful implementation and completion of AKART and all other BMPs required under this permit. Due to the enormity of this project, it is not possible to expect earlier compliance without undermining the design integrity of the project.

The Northwest Pond is considered waters of the state and therefore, those outfalls discharging to it were included to the list of direct discharging outfalls. These outfalls must comply with the effluent limits.

Mr. Greg Wingard:

We have included outfalls discharging to the Northwest Ponds to the list of direct discharging outfalls. These outfalls must comply with the effluent limits as specified in the permit.

Regarding your comment on toxicity, the permit requires the Port to sample all outfalls discharging to the waters of state for toxicity.

About construction runoff monitoring for arsenic, cadmium, and lead, we believe cadmium and lead may be present as a result of arsenic contamination and they should be monitored only if there is reason to believe that presence of arsenic may be causing exceedances of the water quality criteria, which we don't know that yet. Arsenic appears to be the main contaminants as a result of Asarco deposition. Based on preliminary sampling conducted by the Port of Seattle, the amount of arsenic that could potentially leach out of the soil appears to be well below the water quality criteria.

About AKART analysis, delays, and the engineering report, this report got delayed partially due to Ecology's inadequate follow up and staffing to keep up with multiple amendments. This permit contains enforceable, nonnegotiable compliance schedules to ensure project completion and compliance.

About turbidity, the permit Part III, turbidity monitoring and sampling, is slightly altered as a result of comments received. Under Section S6 of Part II, the Port has been asked to assess the effects of these outfalls. It is expected that this study will reveal information on cumulative effects, and if the cumulative effects become a concern, your recommendation should be employed to ensure water quality protection.

### Mr. Stuart Creighton:

The existing permit does not contain effluent limits for any outfalls discharging to the receiving freshwater streams, and also no such limits for construction activities. The compliance determination is basically based on submittals of various reports and studies that were scheduled to be submitted during the term of the permit. Therefore, records indicate the Port is in compliance according to the existing permit.

The PCHB's affirmed the 401 permit and added sixteen (16) more requirements to it. Among these 16, there are about five (5) which have implication on 402 (NPDES) permit. I can briefly describe those few points.

#### **Requirements for Enhanced Treatment**

Addressed under Section S9

#### **Sampling storm water above and below the discharge point to assess the effect on the receiving water**

Addressed under Section S6

#### **Whole Effluent Toxicity (WET) testing for mortality and sublethal toxicity effects on aquatic organisms**

Addressed under Sections S7 and S8

#### **100% retrofit of stormwater facilities at 50% project completion**

Addressed under Section S9

#### **Water Effect Ratio (WER)**

Addressed under Section S9

During the term of this permit, Department of Ecology will be conducting unannounced Class II inspections and would collect samples from various outfalls to ensure compliance. We appreciate your comments on compliance and the delays. We understood your comments but the process needs time to ensure lasting compliance. This permit contains enforceable and nonnegotiable compliance schedules to prevent delays any further.

Mr. Jim Bartlemay: This is also response to your comments received by mail.

About your comment on possible relationship between the AKART completion and the third runway project, this permit is written to ensure that AKART shall be completed and implemented irrespective of the third runway status. This permit was not intended to be tied to the third runway project completion.

Mr. Greg Pole:

This permit contains requirements and limits to protect water quality unlike any other facilities of its kind.

About the treatment BMPs, the Port is obligated to seek Ecology's approval of the design basis. We have also specifically asked the Port to use enhanced BMPs where necessary to ensure proper pollution prevention. It will be Ecology that would make the final decision on effectiveness of a BMP or enhanced BMP.

The upstream and downstream sampling was clearly described under Section S6, Part II. For new outfalls, especially those of Part II, the study conducted for the existing outfalls is good indication of what the new outfalls may need. Please remember that the effluent limits for direct discharging outfalls (and the benchmark for the indirect discharging outfalls) apply to existing and new outfalls.

About SDS3 and the Northwest Ponds, the Northwest Ponds is considered waters of the state and is protected accordingly. The final permit will have SDS3 included into the list of the outfalls that must receive whole effluent toxicity monitoring. If the Port fails its whole effluent toxicity tests, it will have to conduct TI/TR until eventually the source of toxicity is identified and eliminated.

The list of outfalls under Table 1 will be expanded to include all those outfalls discharging into the Northwest Ponds. The delay that you referred to in your comment is due to complexity of the process. The process needs time to ensure proper installation and establishment of long-term compliance. This permit contains enforceable and nonnegotiable compliance schedules to prevent delays any further.

Regarding criteria for BMPs, it is the Port's ultimate responsibility to ensure compliance with the permit. Ecology reserves the right to ask for additional BMPs when the Permittee fails to meet the permit's requirements. The Port of Seattle must submit their engineering report with that in mind.

Mr. David Wilson:

The Northwest Ponds is waters of the state and is protected accordingly.

The copper, lead, and zinc are typical heavy metals detected as part of general runoffs but unlike general runoffs from roads, they are not so typical in construction runoffs. The arsenic was included due to its historic depositions due to Asarco. Additionally, presence of other metals may also be a consequence of arsenic contamination. Their presence, however, may be investigated only after we have conclusive evidence that arsenic has potential to leach out of the soil at a rate that may pose water quality criteria exceedances. If so, other metals associated with Asarco would also be included into the permit via a permit modification. Numerous sampling and investigation conducted by the Port of Seattle did not justify presence of arsenic at a level that may cause exceedance of water quality criteria; hence, presence of other metals at a level that may pose water quality criteria exceedances is unlikely.

Mr. Larry Corval:

About AKART analysis and delays and the engineering report, this report got delayed partially due to Ecology's inadequate staffing to keep up with multiple amendments. However, this permit contains enforceable and nonnegotiable compliance schedules to ensure project completion and compliance. The AKART project implementation is independent of the third runway project completion. About the issue of mixing zone and the AKART analysis and engineering report, these documents were approved contingent upon successful completion and implementation of AKART. The Port of Seattle will be in noncompliance status should it fail to meet the compliance schedule.

Ms. Becky Stanley:

The Northwest Ponds is waters of the state and it is protected accordingly with all protective rules and regulations that go with this designation. The NPDES monitoring program is based on the honor system. However, we do conduct regular announced and unannounced inspection of facilities and take samples to verify the permit holder's monitoring program and reporting. The Port of Seattle is not an exemption. The Department will frequently conduct routine inspection of this facility and all its associated outfalls, with/without sampling, to ensure compliance.

Ms. Maggie Stannard:

The IWS effluent will be tested at the end of the pipe prior mixing with the receiving water. The IWS effluent by no means must find its way into the area freshwater streams.

Appropriate review time and reasonable compliance schedule is a necessity if the goal of the program is long-term compliance. We do understand your comments. However, this permit contains enforceable and nonnegotiable compliance schedules to ensure project completion and compliance. The NPDES monitoring program is based on the honor system. We do conduct regular announced and unannounced inspection of facilities and take samples to verify the permit holder's monitoring program.

Mr. Frank Jovanovich:

Appropriate review time and reasonable compliance schedules are a necessity if the goal of the permit is to establish long-term compliance. This permit contains enforceable, nonnegotiable compliance schedules to ensure project completion and compliance.

Ms. Arlene Brown:

This is also response to your comments received by mail.

Your comment on the third runway, in general, and on the quality of the dirt being supplied to the Port of Seattle, in particular, was very well understood. It is, however, outside the scope of this permit. This permit has a term of no more than five (5) years and is to protect water quality as a result of the stormwater runoff associated with contaminated sites. I recommend you contact Ms. Ann Kenny, Regional Environmental Planner, to receive a specific response to your questions. She can be reached at the following address:

WA State Department of Ecology  
3190 160<sup>th</sup> Avenue S.E.  
Bellevue, WA 98008-5452

About your comment on occurrence of brain cancer among citizens living in localities around the airport, I believe the matter must be investigated scientifically further. According to a report from the State of Washington Department of Health, most cancer occurrences in the SEATAC area are at the same rate as the rest of the state. We suspect any such conclusion was ever made as comment suggested.

The water quality criteria as specified under WAC 173-201A are based on aquatic life criteria. This permit, as a result of comments we received, was also evaluated based on human health criteria and the results are attached to the fact sheet.

Mr. David Athern:

This permit contains enforceable, nonnegotiable compliance schedules to ensure project completion and long-term compliance.

Mr. Brett Fish:

We noted your comment on water needs of the streams. I believe the primary objective of this permit is to ensure proper and adequate pollution prevention to eliminate pollution sources. If we can successfully put a stop to the source of these pollutants, I believe it is a giant step in the right direction. About the stream, I believe and hope that it will be a primary focus of the next permit. The reclaimed tertiary-treated water is an excellent way to compensate freshwater streams to ensure minimum flow. This technique is gaining popularity and is being put in practice in many places.

Mr. Dan Caldwell:

Comment noted.

Mr. William C. Hall:

I believe the proposed permit contains adequate tools to help bring the streams and creeks to their healthy status given enough time. To ensure this goal, this permit contains adequate requirements and enforceable compliance schedules to ensure pollution prevention and elimination.

Mr. Paul Henntides:

The permit contains adequate tools that will ensure proper treatment of the general and construction runoffs and would help streams to eventually achieve and maintain their natural healthy status. This permit will contain annual stormwater reporting but will not set any targets based on certain gallons of stormwater/year. The Port of Seattle is in the process of retrofitting their existing storm drain systems and a report is due by December 2007. The Port has already expanded their contaminated stormwater holding ponds to about 80 million gallons. This volume of storage can withstand most severe rainstorm without having to overflow.

Mr. George Hadley:

The dirt being hauled is monitored via 401 certification. This permit does not control/limit the dirt. This permit limits the runoff for water quality. The Port under this permit is obligated to prevent discharge of any contaminated runoff from entering the waters of the state. This permit contains enforceable and nonnegotiable effluent limits and compliance schedules to ensure compliance with the water quality criteria.

Mr. John McCaslin:

Your comment is outside the scope of this permit. However, when opportunity arises, we will pass it to the appropriate department for appropriate action.

Mr. John Matthews:

The Northwest Ponds is waters of the state and is protected accordingly. The permit and the fact sheet will be modified to that effect. All outfalls discharging into the Northwest Ponds will have to comply with effluent limits.

Mr. Stan Scarvie:

The Port will be responsible for all their outfalls discharging to the waters of the state. They are also expected to work with other jurisdictions discharging to the regional detention facility (or facilities in the future) to control and minimize their stormwater contaminations to ensure discharges from the regional detention facility(s) are in compliance with the water quality criteria. This permit is an individual permit. The Port is required to meet all applicable regulatory standards. Other jurisdictions (e.g., cities and Wash-DOT) may have to comply with similar or different standards.

This permit simply states shear and drip is not considered industrial wastewater and, therefore, does not control shear and drip. The runoff from the areas that might have received shear and drip if conveyed to the waters of the state must comply with the criteria. Discharge of contaminated stormwater not in compliance with this permit is a violation irrespective of its source.

The compliance schedules were carefully designed for successful implementation and completion of AKART and all other BMPs required under this permit. Due to enormity of this project, expecting earlier compliance schedules may undermine the design integrity of the project.

Ms. Gwen K. Schmaltz:

The compliance schedules were carefully designed for successful implementation and completion of AKART and all other BMPs required under this permit. Due to the enormity of this project, expecting earlier compliance schedules may undermine the design integrity of the project.

Mr. Steven Friederich:

Your comment on the third runway and on the quality of the dirt being supplied to the Port of Seattle is outside the scope of this permit. This permit is to protect water quality and it has a term of no more than five (5) years. I recommend you contact Ms. Ann Kenny, Regional Environmental Planner, to receive a specific response to your questions. She can be reached at this address:

WA State Department of Ecology  
3190 160<sup>th</sup> Avenue S.E.  
Bellevue, WA 98008-5452

Ms. Bonnie Miller:

The compliance schedules were carefully designed for successful implementation and completion of AKART and all other BMPs required under this permit. Due to enormity of this project, expecting earlier compliance schedules may undermine the design integrity of the project. This permit prohibits discharge of contaminated stormwater to the waters of the state. The primary objective of this permit is to equip the Port of Seattle with facilities and best management practices for better protection of the environment.