

PCHB NO. 01-133

**PORT OF SEATTLE'S
MEMO OPPOSING
ACC'S MOTION FOR
STAY**

*Declaration of Elizabeth Clark
Declaration of John Strunk
Declaration of Linn Gould
Declaration of Joseph Brasher
Declaration of Linda Logan, Ph.D.*

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AR 012487

Declaration of
Beth Clark

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POLLUTION CONTROL HEARINGS BOARD
FOR THE STATE OF WASHINGTON

AIRPORT COMMUNITIES COALITION,
Appellant,

v.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY, and THE
PORT OF SEATTLE,

Respondents.

PCHB No. 01-133

DECLARATION OF ELIZABETH
CLARK IN SUPPORT OF THE PORT OF
SEATTLE'S RESPONSE OPPOSING
ACC'S MOTION FOR STAY

AR 012489

Elizabeth Clark declares under penalty of perjury as follows:

1. I am over the age of 18, am competent to testify, and have personal knowledge of the facts stated herein.
2. I have a bachelor and a masters degree in Geological Engineering. I am a licensed Professional Engineer (Civil) in the State of Washington. I have worked with the Port of Seattle Environmental Group since 1997, both as a consultant and as a Port employee. See Exhibit A (CV of E. Clark). My involvement at the Port has been with contaminated site investigation and remediation, environmental review of new property acquisitions, and Third Runway fill coordination and review. My involvement with the Third Runway fill acceptance process includes the environmental review of material proposed for placement in the Third Runway embankment relative to the Ecology-approved

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1 fill acceptance criteria contained in the 1998 Airfield Project Soil Fill Acceptance Criteria and its 1999
2 successor (collectively the "Fill Criteria Agreements"). *See* Exhibits B and C respectively.

3 3. To the best of my knowledge, all of the fill accepted for eventual use in the Third
4 Runway embankment *prior* to the 1998 construction season were from two state-certified borrow
5 pits.

6 4. As of the effective date of the 1998 Fill Criteria Agreement, the Port of Seattle
7 implemented the Ecology-approved fill acceptance process set out therein, which process includes a
8 multi-level confirmation system to evaluate compliance with the agreed fill criteria, both prior to
9 acceptance and during placement of accepted material. Review of proposed fill material relative to
10 specific numeric criteria is one of many components of this review designed to identify contamination
11 in proposed fill and subsequently to exclude unacceptable fill. These procedures, as set out in the
12 1998 and 1999 Fill Criteria Agreements, are summarized below in Paragraphs 5 to 9. *See also*
13 Exhibits B and C.

14 5. The initial step in this process is a screening process to identify the fill source
15 category, either Category A, Category B, or State-Certified Borrow Pits, which in turn will determine
16 the appropriate level of evaluation under the Fill Criteria Agreements. Under the 1998 and 1999 Fill
17 Criteria Agreements, chemical testing of soil is required only for Category A sites (industrial sites and
18 sites with potential contamination).

19 6. The next screening step under the Agreements is the documentation of source site
20 conditions by the supplier. This includes the results of any site testing and comparison to MTCA
21 Method A levels. It also includes a discussion of the site history and current site conditions.
22 Achieving a clear understanding of the site history and current usage is critical in the Port of Seattle's
23 determination of the suitability of a source for Third Runway fill. Under the 1998 and 1999 Fill
24 Criteria Agreements, a supplier may use existing environmental information to document the
25 suitability of soil for placement at the Third Runway.

26 7. Next, the Port reviews documentation supplied on each source. Based on the
27 documentation, site observations, test results, and an understanding of the site history and current
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1 usage, the Port of Seattle makes a determination of the suitability of the material for use as Third
2 Runway fill. The acceptance of the material may be limited to certain well-defined portions of a site,
3 and/or may be contingent on additional testing to be conducted once site excavation begins, and/or
4 may require that on-site environmental supervision be provided.

5 8. The Port then inspects incoming fill material proposed for the Third Runway,
6 specifically inspecting for signs of contamination, as well any other indication (e.g., soil type) that the
7 material is different from the soil accepted for import. In addition, based on the particular source, the
8 Port of Seattle may inspect the source excavation activity on a periodic or regular basis.

9 9. Finally, under the Fill Criteria Agreements, the Port submits quarterly reports to
10 Ecology that include a summary of material brought into the Third Runway along with the supporting
11 environmental documentation.

12 10. The ACC has voiced concern regarding Third Runway fill received from two sources:
13 the Army Corps of Engineers Hamm Creek Restoration Project and the WSDOT First Avenue Bridge
14 Project. As described below, this concern is misplaced as the fill from these sources was determined
15 to have satisfied the criteria set out in the Fill Criteria Agreements.

16 11. Early in 1999, the Port of Seattle received a request from the U.S. Army Corps of
17 Engineers ("USACOE") to accept soil excavated as part of the development of the Hamm Creek
18 Restoration Site. The evaluation of the suitability of the soil from the Hamm Creek Restoration
19 Project was based on a review of a 1990 site assessment by Boeing and a 1997 USACOE Sediment
20 Characterization Report (including the Site Sampling and Analysis Plan). Copies of these reports
21 were provided to Ecology.

22 12. The evaluation of the Hamm Creek Restoration Project was based on review of
23 information contained in both the USACOE studies and the Boeing studies. The Port review included
24 consideration of site uses and operational history as well as chemical test results. The Boeing studies
25 included collection and analysis of 12 soil samples and three groundwater samples. Analytical test
26 results for these samples were all below MTCA Method A Cleanup Levels and the material
27 ultimately accepted from the Corps project satisfied the fill acceptance criteria. In 1999,
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1 approximately 80,000 cubic yards of soil was brought from the Hamm Creek Restoration Project to
2 the Third Runway for use as fill. A Senior Port Site Inspector visited the Hamm Creek Restoration
3 Site on two occasions during excavation activities to observe the material being brought into the Third
4 Runway. In addition, the material was regularly inspected at the Third Runway receiving site.

5 13. Concern regarding the Hamm Creek fill arose as the result of a failed bioassay test,
6 however, closer examination of this test reveals that the test is not applicable to the Third Runway.
7 The USACOE study was focused on specific portions of the Hamm Creek source area being
8 considered for potential open water disposal. The sampling was performed in accordance with Puget
9 Sound Dredge Disposal Authority (PSDDA) protocol for open water (*marine*) disposal. The results
10 of bioassay testing of *marine organisms* conducted under PSDDA protocols did not meet the criteria
11 for open water disposal in Puget Sound. To my understanding, the results of the bioassay tests were
12 attributed to the oxidized nature of the upland site as compared to a marine environment and not to
13 any sources of contamination and not, as has been alleged, to the low levels of PCBs and DDTs
14 detected at this site. In short, a marine bio-assay test was inappropriately used for freshwater upland
15 soils, resulting in mortality of marine test organisms due to chemical changes in the test material from
16 exposure to salt water, not from contaminant concerns.

17 14. In the Fall of 1999, the Port of Seattle received a request from the WSDOT to accept
18 soil generated as part of their First Avenue Bridge Project. WSDOT initially provided results for five
19 samples collected throughout the proposed fill material. One of these samples exceeded the then
20 applicable MTCA Method A Cleanup Level for total petroleum hydrocarbons, however, the
21 concentrations did not exceed the levels now required under the 401 Certification. Regardless, based
22 on these test results, the Port of Seattle designated as not suitable for Third Runway fill the material
23 located where soil sample data indicated concentrations greater than the fill criteria.

24 15. The Port agreed to conditionally accept the remaining, unimpacted project material
25 from the First Avenue Bridge Project and, along with WSDOT, developed a program to monitor and
26 chemically test the material during excavation to confirm the continued compliance with Third
27 Runway criteria and to confirm that material from the impacted area was not brought to the Third
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1 Runway. Material from the First Avenue Bridge Project was brought to the Third Runway in the
2 Spring of 2000 on this basis. On-site supervision by a Senior Port Site Inspector was provided to
3 monitor soil excavation, specifically observing any visual or olfactory signs of contamination. At the
4 request of the Port Site Inspector, the previously identified impacted soil area at the excavation site
5 was flagged so that it would clearly be distinguished from other site material. WSDOT also had a full-
6 time site inspector at the excavation site. At the Third Runway receiving site, a full-time observer
7 observed all loads received from the First Avenue Bridge Project. In short, none of the impacted soil
8 was accepted for use at the Third Runway.

9 I declare under penalty of perjury, under the laws of the State of Washington, that the
10 foregoing is true and correct.

11 DATED this 28th day of September, 2001 at Seattle, Washington

12 Elizabeth Clark
13 Elizabeth Clark

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ELIZABETH CLARK. P.E.

Address:

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EMPLOYMENT HISTORY:

Port of Seattle – SeaTac, Washington

Independent Consultant/Environmental Manager, 1997-2000

Provide support to the Port of Seattle Environmental Group at the Seattle-Tacoma International Airport. Specific responsibilities include coordination of incoming fill to the Third Runway Project; environmental review of new property acquisitions; review of project plans and specifications for environmental compliance; and oversight of contaminated site investigations and cleanup. Work involves coordination of environmental project requirements with larger site development and construction activities during a time of unprecedented growth at the airport. Activities involve interaction with other airport departments, the public, and airport tenants as well as a working knowledge of regulatory requirements.

Responsibilities include project management, strategic planning and budgeting, project briefings, and consultant coordination. Projects have included Third Runway Construction, Concourse A Terminal Expansion, and Central Terminal Expansion.

Port of Tacoma - Tacoma, Washington

Environmental Program Manager, 1993-1996

Managed a variety of environmental and site development projects as part of the Port Environmental Team. Project work involved close coordination with other Port departments, tenants, regulatory agencies, tribes, and the general public. Represented the Port at public meetings, hearings, and similar forums.

Provided project management assistance on environmental projects including the permitting of a major container terminal on the Blair Waterway, including extensive interaction with a variety of regulatory agencies and tribes on habitat mitigation, site permitting, and cleanup issues. Also managed other projects involving tenant compliance, site cleanup, and Port environmental compliance.

Landau Associates, Inc. - Edmonds and Tacoma, Washington
Project Engineer/Tacoma Branch Manager, 1985-1993

Over eight years of progressive experience with a Washington-based consulting firm dealing with a variety of engineering and environmental issues. Office manager for the company's Tacoma branch office.

Project manager for numerous environmental studies and cleanups throughout Washington and Oregon. Provided consultation and training to clients as well as others within the firm concerning the application of the Model Toxics Control Act regulations.

Washington State University, Civil and Environmental Engineering Department - Pullman, Washington
Research Assistant, 1983-1985

Assisted in research projects including the reclamation of a dredge-mined stream in central Idaho and analysis of land use impacts on streamflow characteristics of several western Washington streams.

RELATED EXPERIENCE:

Licensed Civil Engineer in Washington State
Kepner Tregoe Project Management Training Certification
Port of Tacoma representative to WPPA Environmental Committee (1994-1995)
Participant Association Washington Business Environmental Group (1990-1993)
Speaker at numerous conferences and briefings regarding the application of the Model Toxics Control Act

EDUCATION:

M.S. Geological Engineering, 1985, Washington State University. Thesis topic: Evaluation of land use impacts on low stream flows of several western Washington streams.

B.S. Geological Engineering, 1982, University of New Hampshire, *magna cum laude*.

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Third Runway Soil Fill Quality Criteria

Introduction

The Port of Seattle has contracted for the placement of approximately 820,000 cubic yards of soil material in 1998 as the first phase construction of the embankment for the new Runway. The Washington Department of Ecology has requested an elaboration of the criteria by which the Port will determine the suitability of fill material to be used on the project.

The Port has established a process that will assure that appropriate material will be placed as fill for the project. The process begins with the significant decision to bring to the project only soil material purchased under legal contract by, or already owned by, the Port rather than to accept material at no cost from various suppliers not under legal contract to the Port. Purchased fill will be brought to the project under contracts that include explicit technical specifications concerning the quality and type of the fill and the certification and monitoring of that quality; measurements and payment specifications that require satisfaction of the technical specifications prior to payment; and liability allocation terms that place non-performing parties at very significant commercial risk.

Criteria, Certification, and Monitoring Process

1. Soil fill material (material) to be delivered to the project site will be derived from the following sources:
 - a. State-certified borrow pits
 - b. Contractor-certified construction sites
 - c. Port-owned property
2. Material derived from state-certified borrow pits and contractor-certified construction sites will be provided by the embankment contractor, subject to contract terms and specifications. Free material will not be accepted, except materials owned by the Port.
3. Contract fill material specifications are as follows, and require certification from a licensed geotechnical engineer, certifying that the submitted material tests are an accurate representation of the material from the source site and that the material is not contaminated.

Fill Borrow Material Types:

	<u>Sieve Size</u>	<u>Payment Passing</u>
Group 1	6"	100
	3"	70-97
	3/4"	50-77
	U.S. No. 4	30-50
	U.S. No. 40	3-15
	U.S. No. 200*	0-5

Group 2	6"	100
	3"	70-97
	¾"	50-85
	U.S. No. 4	30-65
	U.S. No. 40	5-30
	U.S. No. 200*	0-12
Group 3	6"	100
	U.S. No. 4	50-95
	U.S. No. 40	20-60
	U.S. No. 200*	12-35

* The percent passing the number 200 sieve shall be determined based on the fraction of material passing the ¾" sieve.

The maximum particle size allowed for fill borrow material is 6" in any dimension or ¼ of the allowable lift thickness as specified in 152-2.4, whichever is greater. The final gradation shall be continuously well-graded from coarse to fine and shall not vary from the low limit on one sieve to the high limit on an adjacent sieve or vice versa.

Material must be accompanied by test results and certification from a certified testing agency that fill borrow material is below MTCA Method A standards for soil contamination.

Once material sites have been approved and the fill construction operations begin, no additional fill borrow material sites will be considered.

4. State-certified borrow pits are borrow pits tested by the State of Washington to assure material suitability for use by the Washington Department of Transportation for various state construction projects. Contractors will independently certify (through a professional engineer and environmental professional) that materials to be imported to the project from both state-certified and contract-certified sources meet contract soil quality specifications. Contractor certification process shall include a review of the source area geologic conditions and use/operational history, as well as field and/or laboratory testing of source materials to satisfy listed soil quality specifications. The Port and/or contractor will provide for the same environmental professional certification for materials imported from Port properties. Based on the review of site operational history and site observations, the environmental professional will determine an appropriate program of sample analysis for environmental condition certification. The Port will evaluate and accept or reject certification documentation for each proposed source. The Port of Seattle will provide the contractors initial fill submittal to the Department of Ecology. Quarterly updates consisting of quantities and placement will follow.
5. Materials will be transported, delivered and placed at the project site by the contractor per the specifications (i.e., the project does not allow for uncontrolled material deposition). The contractor and consultant services required by the contract are standard services

provided routinely in normal commercial practice; the selected contractors and consultants will have significant experience and expertise in performing the activities required by the contract, including conducting the activities necessary to certify that the material and the material placement satisfied geotechnical and environmental contract specifications.

6. Independent consulting soil technicians (one representing the contractor, one consulting to the Port) and the Port's construction inspector will observe material delivery and placement. The Port's consultant will monitor the incoming material for source consistency, observing the physical and geotechnical properties of the material to identify any difference that could render the material unsuitable or indicate material supplied from an uncertified source. Material from uncertified sources will not be accepted for the fill. The Port's consultant will conduct in-place soil density tests on the average of once for each 60 truck loads, or about one test per hour, confirming compliance with the specifications.

The process described above will be used for project fill material placed in 1998. Beginning in 1999, the Port may consider use of fill material that meets different geotechnical and /or environmental specifications. If such materials are used, additional and different appropriate certification procedures will be developed. The Department of Ecology shall be notified of any changes to be proposed regarding certification procedures.

1999 Airfield Project Soil Fill Acceptance Criteria

The Port of Seattle will have a continuing need to acquire fill material for use in STIA airfield projects. In 1999, the Port will acquire geotechnically and environmentally suitable materials by either contract (purchase) or by other arrangement for acceptance of surplus material. Material delivered to the airport will be derived from the following sources:

- Commercial borrow pits that are "state certified" **
- Contractor/supplier-certified construction sites
- Port-owned property

** The Washington State Department of Transportation (WDOT) tests material from borrow pits for various geotechnical qualities, either for its own purposes or upon request. Borrow pits that are found to have geotechnically suitable material by the WDOT testing are said to be "state certified" and are identified by WDOT pit numbers. The WDOT testing does not include testing for contaminants.

The Washington Department of Ecology has requested, in conjunction with the 401 Water Quality certification process, a description of the criteria and review process for acceptance of fill material. The fill acceptance criteria and review process to be used in 1999 are described below.

Criteria

Generally, geotechnical suitability depends on the specific project and fill placement location, and will be established on a use-specific basis. Generally, environmentally suitable materials are those that meet MTCA Method A contaminant levels. However, in the event the Port determines that specific material that does not satisfy MTCA Method A contaminant levels is nonetheless appropriate for placement in a specific project location, where such placement is environmentally responsible and meets applicable regulatory standards, it will consult with Ecology for approval prior to placement.

Process

1. Contractors/suppliers will certify that materials to be imported to the project from sources other than state-certified commercial sources, including Port-owned sources, meet project-specific geotechnical suitability criteria and MTCA Method A contaminant levels. Material obtained from state-certified commercial borrow pits shall generally be accepted for airport airfield projects without source-specific environmental certification. There are, however, some commercial sources where elevated levels of arsenic are known to occur. The Port will accept material from these sources only with supplier certification that materials to be imported to the project meet the Method A level for arsenic.

2. *Purchased fill material* will be brought to the airport for use in airfield projects under contracts that include explicit specifications concerning the quality and type of the fill and the certification and monitoring of that quality; measurement and payment specifications that require satisfaction of the technical specifications prior to payment; and liability allocation terms that place nonperforming parties at very significant commercial risk.

Surplus fill material will be certified by the provider, prior to Port acceptance, as meeting specific geotechnical and environmental suitability criteria.

3. The contractor/supplier certification process shall reflect source location, and shall be implemented as follows:

3.1 Contractors/suppliers will:

- (a) certify that materials to be imported to the project will be derived from a state-certified commercial source, or one of the two source categories defined below (which may include Port-owned sources), and
- (b) complete the appropriate tasks and provide material quality certifications as required based on the material source, as described below.

Category A sources include:

- (i) industrial source locations;
- (ii) source locations known to have probability of environmental impact from historical use on site or on adjacent areas;
- (iii) source locations or adjacent areas listed on the most current edition of the following Ecology databases:
 - (1) Confirmed and Suspected Contaminated Sites Report,
 - (2) the Underground Storage Tank List, and
 - (3) the Leaking Underground Storage Tank List.

Category A source certification will include:

- (i) observation of source area and adjacent areas by an environmental professional;
- (ii) review of existing documentation of source area geologic conditions and use/operational history of site and adjacent areas sufficient to identify potential environmental contaminants;

(iii) if no existing documentation is available, review of historical operations (air photo review, interview of persons familiar with site and adjacent areas, or other method);

(iv) based on the observations and review of operational history of the site and adjacent areas, an environmental professional will determine whether any additional sample analyses are appropriate for environmental condition certification; if no previous sample data exist, TPH and metals analyses, as well as any other analyses deemed appropriate based on historical information, will be performed on representative site samples.

Category B sources include all sources not included in Category A.

Category B source certification will include:

(i) observation of source area and adjacent areas by an environmental professional

(ii) interview of available person familiar with the site and adjacent areas

(iii) if the observation and interview leads to a determination that there is a reasonable potential for presence of contaminants at concentrations of concern, the contractor will proceed with the Category A certification process described above.

3.2 The Port will:

(a) independently evaluate and accept or reject certification documentation for each proposed source, and

(b) for each accepted source provide the contractor's or supplier's fill certification submittal to the Department of Ecology quarterly along with updates consisting of quantities and placement.

4. One or more independent consulting soil technicians (at least one consulting to the Port) and the Port's construction inspector will observe material delivery and placement. The Port's consultant will monitor the incoming material for source consistency and any indications of contamination, observing the physical and geotechnical properties of the material to identify any difference that could render the material unsuitable or indicate material supplied from an uncertified source. Material from uncertified sources will not be accepted for the fill. The Port's consultant will conduct in-place soil density tests as appropriate (typically 3 –5 each day), confirming compliance with the

specifications. The Port's consultant will have contaminant field-screening equipment available for use as appropriate.

The process described above will be used for project fill material placed in 1999 and thereafter. Beginning in 2000 however, the Port may consider use of fill material that meets different geotechnical specifications and/or environmental criteria. If the Port identifies different environmental criteria, additional and different appropriate certification procedures will be developed subject to approval by Ecology. .