STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

In the Matter of Remedial Action by:

ENFORCEMENT ORDER

ALCOA Inc.

No. DE 5660

TO: Mr. Mark Stiffler Alcoa Inc. 201 Isabella St. Pittsburgh, PA 15212-5858

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I. INTRODUCTION

The objective of the State of Washington, Department of Ecology (Ecology) under this Enforcement Order (Order) is to require remedial action at a facility where there has been a release or threatened release of hazardous substances. This Order requires Alcoa Inc. (Alcoa) to complete the following items that will allow for the safe and efficient remediation of contaminated sediments from the Columbia River adjacent to the Evergreen aluminum smelter. The work to be undertaken under this Order is consistent with and necessary for the planned remediation of contaminated sediments to be undertaken pursuant to either an agreed order or a consent decree. Specifically Alcoa shall: 1) demolish ore handling facilities next to the dock, 2) remove existing above ground petroleum tank structures and associated piping east of the dock and underground petroleum storage tanks located in the river dike west of the dock, 3) conduct petroleum contamination soil sampling after removal of the tanks and pipelines and, if necessary, perform soil removal, 4) sample and remove any PCB contaminated soil along the riverbank and dike in the area shown on Exhibit B west of the dock with the potential to impact the sediment remediation, and 5) prepare and regrade the Columbia River riverbank and dike as needed for geotechnical stability required for the sediment remediation. All work shall be performed above the ordinary high water mark of the Columbia River.

II. JURISDICTION

This Enforcement Order is issued pursuant to the Model Toxics Control Act (MTCA), RCW 70.105D.050(1).

III. PLP BOUND

This Enforcement Order shall apply to and be binding upon Alcoa. To the extent allowed by law, changes in ownership or corporate status shall not alter Alcoa's responsibility under this Order. Alcoa shall provide a copy of this Order to all agents, contractors, and subcontractors retained to perform work required by this Order, and shall ensure that all work undertaken by such agents, contractors, and subcontractors complies with this Order.

IV. DEFINITIONS

Unless otherwise specified herein, the definitions set forth in Chapter 70.105D RCW and Chapter 173-340 WAC shall control the meanings of the terms in this Order.

- A. <u>Site</u>: The Site is referred to as the former Alcoa Vancouver Works and is generally located at 5701 Northwest Lower River Road, Vancouver, Washington. The Site is more particularly described in the Site Diagram (attached hereto as Exhibit A) and is defined by the extent of contamination caused by the release of hazardous substances at the Site. The Site constitutes a Facility under RCW 70.105D.020(5).
- B. <u>Potentially Liable Person</u> (<u>PLP</u>): Refers to Alcoa Inc. (formerly known as the Aluminum Company of America),
- C. <u>Enforcement Order or Order</u>: Refers to this Order and each of the exhibits to the Order. All exhibits are an integral and enforceable part of this Order. The terms "Enforcement Order" or "Order" shall include all exhibits to this Order.

V. FINDINGS OF FACT

Ecology makes the following findings of fact, without any express or implied admissions of such facts by Alcoa:

- A. The Site is located at 5701 Northwest Lower River Road, Vancouver, Washington, approximately three miles northwest of downtown Vancouver, Washington.
- B. The Site is listed on the Department of Ecology's Hazardous Sites List as "Alcoa Vancouver", Facility Site ID No. 21. The Site encompasses the following sites on the Hazardous Site List: "Alcoa Northeast Parcel" (FS ID 50815458), "Alcoa Vancouver NPL" (FS ID 25), "Alcoa Vancouver PCB" (FS ID 22), "Alcoa Vancouver Rod Mill" (FS ID 24), "Alcoa Vancouver TCE" (FS ID 23), and "Columbia Marine Lines" (FS ID 26).
- C. At the Site, Alcoa owned and/or operated a primary aluminum smelter and fabrication facility for approximately 45 years. In 1987, Alcoa discontinued primary aluminum manufacturing operations and sold the smelter and underlying lands, and some other ancillary

facilities and lands, to Vanalco, Inc. (Vanalco). Vanalco subsequently filed for bankruptcy, and its assets at the Site were purchased by Evergreen in April 2002.

- D. Alcoa currently owns an area on the former aluminum smelter property known as the East Landfill. Alcoa also currently owns the land generally located to the south and southwest of the East Landfill area above the ordinary high water mark, including the riverbank of the Columbia River and the land located alongside a Clark County Public Utilities (CPU) outfall line, (hereinafter "South Bank" or "South Bank Area").
- E. In 1997, PCBs were discovered in three Columbia River sediment samples collected by the CPU as part of the NPDES permitting requirements for a non-contact cooling water discharge installed approximately 300 feet west of the East Landfill. Alcoa initiated a soil and ground water investigation of the entire riverbank/shoreline area of the East Landfill. This work indicates that the East Landfill is not the primary source of the PCBs in the Columbia River sediments. During the investigation, an area of elevated PCBs in soil was discovered on the riverbank to the south and southwest of the East Landfill area, adjacent to the CPU outfall line (now known as the South Bank Area). This is thought to be the major source of the PCB contamination found in the Columbia River adjacent to the cooling water discharge.
- F. PCBs found in soils in the South Bank Area adjacent to the East Landfill were below the MTCA Method A Soil Cleanup Levels for Industrial Properties. However, the South Bank Area near the CPU's outfall included approximately 2,500 yd³ of soil impacted with PCBs at concentrations above the MTCA Method A Soil Cleanup Levels for Industrial Properties. This material was localized around the location of the CPU outfall to a depth of approximately 15 feet and was excavated in 2003 in accordance with Ecology Agreed Order DE03 TCPIS-5737. Adjacent to and downstream from the CPU outfall, sediments of the Columbia River are impacted with PCBs.
- G. Soil investigations along the Columbia River shore at the ordinary high water mark and west of the South Bank Area in 2008 revealed PCB contamination above the MTCA Method A Soil Cleanup Levels for Industrial Properties in one area (east of the dock) and above

the MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses in a second area (west of the dock).

- H Underground petroleum storage tanks are located in the landward side of the Columbia River dike west of the dock. The underground tanks were filled with pea gravel and closed in place in 1987. Investigations in 2007 and 2008 have found petroleum hydrocarbons in soils above MTCA total petroleum hydrocarbon standards next to the underground tanks. Above ground storage tanks were located 1,000 feet east of the dock. The steel tanks were removed prior to 1988. Concrete bottoms and ring foundations from the above ground tanks remain in the dike. Fuel transfer piping is found running from the tank foundations into the smelter. Portions of the fuel transfer piping have been removed by Evergreen Aluminum. Ore conveyance system structures are located next to the dock.
- I. The riverbank and dike along the Colombia River at the smelter site are composed of brick and soil. The angle of repose along portions of the brick dike and shoreline is above safe construction limits.

VI. ECOLOGY DETERMINATIONS

- A. Alcoa is an "owner or operator" as defined in RCW 70.105D.020(17) of a "facility" as defined in RCW 70.105D.020(5).
- B. Based upon all factors known to Ecology, a "release" or "threatened release" of "hazardous substance(s)" as defined in RCW 70.105D.020(25) and RCW 70.105D.020(10), respectively, has occurred at the Site.
- C. By letter dated November 13, 1996, Ecology notified Alcoa of its status as a "potentially liable person" under RCW 70.105D.040 and WAC 173-340-500 after notice and opportunity for comment. Alcoa did not object to Ecology's proposed finding within the thirty (30) days provided by law. By letter dated December 16, 1996, Ecology notified Alcoa of its determination that Alcoa is a PLP.
- D. Pursuant to RCW 70.105D.030(1) and -.050(1), Ecology may require PLPs to investigate or conduct other remedial actions with respect to any release or threatened release of

hazardous substances, whenever it believes such action to be in the public interest. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.

E. Under WAC 173-340-430, an interim action is a remedial action that is technically necessary to reduce a threat to human health or the environment by eliminating or substantially reducing one or more pathways for exposure to a hazardous substance, that corrects a problem that may become substantially worse or cost substantially more to address if the remedial action is delayed, or that is needed to provide for completion of a site hazard assessment, remedial investigation/feasibility study or design of a cleanup action. This Order directs Alcoa to re-grade the riverbank to prepare for the sediment remediation and remove PCB contaminated soil and materials with the potential to impact the sediment remediation from the riverbank above the ordinary high water mark in the area shown on Exhibit B. Alcoa shall also remove ore handling facilities and petroleum storage tanks prior to Columbia River sediment The action described by this Enforcement Order is necessary to successfully complete the sediment remediation adjacent to the aluminum smelter property during the next inriver construction window starting in November of 2008. Permitting for this Columbia River November 2008 construction window is in progress with the United States Army Corps of Engineers.

VII. WORK TO BE PERFORMED

Based on the Findings of Fact and Ecology Determinations, it is hereby ordered that Alcoa take the following remedial actions at the Site and that these actions be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein. No work shall be preformed below the ordinary high water mark of the Columbia River for the interim actions described in this Enforcement Order

A. Scope of Work. Alcoa, through its contractor and subcontractor as necessary, shall accomplish the following work at the Site.

- Prepare an addendum to the existing Site health and safety plan for work on the Site in accordance with the most recent OSHA and WISHA rules and their implementing regulations.
- 2. As required by Section VIII N, Alcoa shall obtain and comply with any and all state, federal, or local permits and substantive requirements required by applicable law before work on the Site can begin. Alcoa shall coordinate, determine, and satisfy any substantive requirements of the Shoreline Management Act with Clark County and the City of Vancouver.
 - 3. Complete each action described below.
 - a) Removal and demolition of ore handling facilities. Alcoa shall submit demolition plans that include best management practices (BMPs) for work adjacent to and over Columbia River to Ecology prior to the start of the demolition. Using best management practices, Alcoa shall remove ore handling and storage equipment located over the water and on the bank of the Columbia River adjacent to the dock. BMPs will be implemented to reduce the potential for foreign material to enter the Columbia River during demolition.
 - b) Demolition of above ground tank structures and associated piping and removal of underground tanks. Alcoa shall submit a confirmation sampling plan to Ecology for approval prior to start of demolition. The confirmational sampling and analysis plan shall describe the methods and analytical procedures used to analyze soil and water samples and the justification for the location and frequency of sampling to determine compliance with cleanup standards. Alcoa shall remove all above ground and underground petroleum tanks, piping, and support structures from the riverbank and dike on the Site as identified in Exhibit B. Any visibly contaminated soil discovered during demolition shall be tested and, if appropriate, shall be removed to either a permitted solid waste, RCRA waste, or Chemical waste landfill approved for petroleum contaminated soils. The cleanup level shall follow MTCA Method A Soil Cleanup Levels for Industrial Properties WAC 173-340-900 Table 745-1.

- c) Riverbank and dike PCB sampling. Alcoa shall submit to Ecology for approval a sampling and analysis plan to determine the extent of PCB contamination in soils on the riverbank and dike west of the dock in the area shown on Exhibit B. The plan shall complete the characterization of the location, quantity, aerial and vertical extent of the PCB contamination in soils found on the riverbank and dike. The plan shall describe the methods and analytical procedures used to analyze soil samples taken during the characterization. Using the riverbank and dike sampling, Alcoa shall propose to Ecology for approval a PCB soil remediation plan with remediation levels for the riverbank and dike source control activities. In order to prevent recontamination of sediments, the remediation level for defined areas shall be between 5 mg/Kg and the MTCA Method A cleanup level for industrial properties (Table 745-1; 10 mg/Kg PCB mixtures).
- d) Riverbank and dike PCB source control activities. After completion of sampling directed in Section A3(c), Alcoa shall remove contaminated soils above the remediation level only in the area shown on Exhibit B and as needed to prepare for the sediment remediation. Those soils shall be removed to either a solid waste, RCRA or Chemical waste permitted landfill. The remediation level to prevent river sediment recontamination for the riverbank and dike soil removals shall be based on the results of the sampling directed in Section A3(c). Alcoa shall submit to Ecology for approval prior to the start of remediation a confirmational sampling plan. The confirmational sampling and analysis plan shall describe the methods and analytical procedures used to analyze soil samples and the justification for the location and frequency of sampling to determine compliance with cleanup standards and the remediation level. The Ecology approved conformational sampling plan shall be used to determine compliance with the remediation level for the soil cleanup.
- e) Riverbank preparation. After PCB remediation Alcoa shall prepare and contour the slope of the riverbank and dike to be consistent with and key into the

stabilization design defined in the JARPA Permit for the Alcoa Columbia River sediment removal project. Alcoa shall use best management practices for construction in and around water bodies. No work shall occur below the ordinary high water mark.

- **B. Schedule**. The work directed by this Order shall begin on the effective date of the Order and be completed by March 31, 2009.
- **C. Progress Reports**. Alcoa shall submit monthly electronic progress reports that briefly indicate work finished during the month and an estimate of the completion date for each of the five interim actions.
- D. If, at any time after the first exchange of comments on drafts, Ecology determines that insufficient progress is being made in the preparation of any of the deliverables required by this Section, Ecology may complete and issue the final deliverable.

VIII. TERMS AND CONDITIONS OF ORDER

A. Public Notice

RCW 70.105D.030(2)(a) requires that, at a minimum, this Order be subject to concurrent public notice. Ecology shall be responsible for providing such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that this Order is inadequate or improper in any respect.

B. Remedial Action Costs

Alcoa shall pay to Ecology costs incurred by Ecology pursuant to this Order and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or its contractors for or on the Site under Chapter 70.105D RCW, including remedial actions and Order preparation, oversight, and administration. These costs shall include work performed both prior to and subsequent to the issuance of this Order. Ecology's costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). Alcoa shall pay the required amount within ninety (90) days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff,

and the amount of time spent by involved staff members on the project. A general statement of

work performed will be provided upon request. Itemized statements shall be prepared quarterly.

Pursuant to WAC 173-340-550(4), failure to pay Ecology's costs within ninety (90) days of

receipt of the itemized statement of costs will result in interest charges at the rate of twelve

percent (12%) per annum, compounded monthly.

Pursuant to RCW 70.105D.055, Ecology has authority to recover unreimbursed remedial

action costs by filing a lien against real property subject to the remedial actions.

C. Implementation of Remedial Action

If Ecology determines that Alcoa has failed without good cause to implement the

remedial action, in whole or in part, Ecology may, after notice to Alcoa, perform any or all

portions of the remedial action that remain incomplete. If Ecology performs all or portions of

the remedial action because of Alcoa's failure to comply with its obligations under this Order,

Alcoa shall reimburse Ecology for the costs of doing such work in accordance with Section VIII.

B (Remedial Action Costs), provided that Alcoa is not obligated under this Section to reimburse

Ecology for costs incurred for work inconsistent with or beyond the scope of this Order.

Except where necessary to abate an emergency situation, Alcoa shall not perform any

remedial actions at the Site outside those remedial actions required by this Order, unless Ecology

concurs, in writing, with such additional remedial actions.

D. Designated Project Coordinators

The project coordinator for Ecology is:

Name: Pau Address: Indu

Paul Skyllingstad Industrial Section

Department of Ecology

P.O. Box 47706

Olympia, WA 98504-7706

The project coordinator for Alcoa is:

Name Address Mark Stiffler Alcoa Inc.

201 Isabella Street

Pittsburgh, PA 15212-5858

Each project coordinator shall be responsible for overseeing the implementation of this Order. Ecology's project coordinator will be Ecology's designated representative for the Site. To the maximum extent possible, communications between Ecology and Alcoa, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order shall be directed through the project coordinators. The project coordinators may designate, in writing, working level staff contacts for all or portions of the implementation of the work to be performed required by this Decree.

Any party may change its respective project coordinator. Written notification shall be given to the other party at least ten (10) calendar days prior to the change.

E. Performance

All geologic and hydrogeologic work performed pursuant to this Order shall be under the supervision and direction of a geologist licensed in the State of Washington or under the direct supervision of an engineer registered in the State of Washington, except as otherwise provided for by Chapters 18.220 and 18.43 RCW.

All engineering work performed pursuant to this Order shall be under the direct supervision of a professional engineer registered in the State of Washington, except as otherwise provided for by RCW 18.43.130.

All construction work performed pursuant to this Order shall be under the direct supervision of a professional engineer or a qualified technician under the direct supervision of a professional engineer. The professional engineer must be registered in the State of Washington, except as otherwise provided for by RCW 18.43.130.

Any documents submitted containing geologic, hydrologic or engineering work shall be under the seal of an appropriately licensed professional as required by Chapter 18.220 RCW or RCW 18.43.130.

Alcoa shall notify Ecology in writing of the identity of any engineer(s) and geologist(s), contractor(s) and subcontractor(s), and others to be used in carrying out the terms of this Order, in advance of their involvement at the Site.

F. Access

RCW 70.105D.030(1)(a) authorizes Ecology or any Ecology authorized representative to enter all property at the Site that Alcoa either owns, controls, or has access rights to, after reasonable notice unless an emergency prevents such notice. Alcoa shall make all reasonable efforts to secure access rights for those properties within the Site not owned or controlled by Alcoa where remedial activities or investigations will be performed pursuant to this Order. When accessing the Site, Ecology shall comply with any applicable Health and Safety Plan(s), any applicable health and safety procedures of Alcoa, any access regulations under the United States Coast Guard Maritime Security (MARSEC) System.

G. Sampling, Data Submittal, and Availability

With respect to the implementation of this Order, Alcoa shall make the results of all sampling, laboratory reports, and/or test results generated by it or on its behalf available to Ecology. Pursuant to WAC 173-340-840(5), all sampling data shall be submitted to Ecology in both printed and electronic formats in accordance with Section VII. (Work to be Performed), Ecology's Toxics Cleanup Program Policy 840 (Data Submittal Requirements), and/or any subsequent procedures specified by Ecology for data submittal.

If requested by Ecology, Alcoa shall allow Ecology and/or its authorized representative to take split or duplicate samples of any samples collected by Alcoa pursuant to the implementation of this Order. Alcoa shall notify Ecology seven (7) days in advance of any sample collection or work activity at the Site pursuant to this Order; provided, however, that Ecology may waive this notification requirement and accept samples where they were collected during construction projects or other circumstances where sampling was prudent or necessary but unplanned. Ecology shall, upon request, allow Alcoa and/or its authorized representative to take split or duplicate samples of any samples collected by Ecology pursuant to the implementation of this Order, provided that doing so does not interfere with Ecology's sampling. Without limitation on Ecology's rights under Section VIII. F (Access), Ecology shall notify Alcoa prior to any sample collection activity unless an emergency prevents such notice.

In accordance with WAC 173-340-830(2)(a), all hazardous substance analyses shall be conducted by a laboratory accredited under Chapter 173-50 WAC for the specific analyses to be conducted, unless otherwise approved by Ecology.

H. Retention of Records

During the pendency of this Order, and for ten (10) years from the date of completion of the work performed pursuant to this Order, Alcoa shall preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Order and shall insert a similar record retention requirement into all contracts with project contractors and subcontractors. Upon request of Ecology, Alcoa shall make all such records available to Ecology and allow access for review within a reasonable time.

I. Resolution of Disputes

Alcoa may request Ecology to resolve factual or technical disputes which may arise during the implementation of this Order. Such request shall be in writing and directed to the signatory, or his/her successor(s), of this Order. Ecology resolution of the dispute shall be binding and final. Alcoa is not relieved of any requirement of this Order during the pendency of the dispute and remains responsible for timely compliance with the terms of this Order unless otherwise provided by Ecology in writing.

J. Extension of Schedule

- 1. An extension of schedule shall be granted only when a request for an extension is submitted in a timely fashion, generally at least thirty (30) days prior to expiration of the deadline for which the extension is requested, and when good cause exists for granting the extension. All extensions shall be requested in writing. The request shall specify:
 - a. The deadline that is sought to be extended;
 - b. The length of the extension sought;
 - c. The reason(s) for the extension; and
 - d. Any related deadline or schedule that would be affected if the extension were granted.

- 2. The burden shall be on Alcoa to demonstrate to the satisfaction of Ecology that the request for such extension has been submitted in a timely fashion and that good cause exists for granting the extension. The existence of good cause shall be determined by Ecology in its sole discretion. Good cause may include, but may not be limited to:
 - a. Circumstances beyond the reasonable control and despite the due diligence of Alcoa including delays caused by unrelated third parties or Ecology, such as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents submitted by Alcoa;
 - b. Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other unavoidable casualty; or
 - c. Endangerment as described in Section VIII. K (Endangerment).

However, neither increased costs of performance of the terms of this Order nor changed economic circumstances shall be considered circumstances beyond the reasonable control of Alcoa.

- 3. Ecology shall act upon any written request for extension in a timely fashion. Ecology shall give Alcoa written notification of any extensions granted pursuant to this Order. A requested extension shall not be effective until approved by Ecology.
- 4. An extension shall only be granted for such period of time as Ecology determines is reasonable under the circumstances. Ecology may grant schedule extensions exceeding ninety (90) days only as a result of:
 - a. Delays in the issuance of a necessary permit which was applied for in a timely manner;
 - b. Other circumstances deemed exceptional or extraordinary by Ecology; or
 - c. Endangerment as described in Section VIII. K (Endangerment).

K. Endangerment

In the event Ecology determines that any activity being performed at the Site is creating or has the potential to create a danger to human health or the environment on or surrounding the

Site, Ecology may direct Alcoa to cease such activities for such period of time as it deems necessary to abate the danger. Alcoa shall immediately comply with such direction.

In the event Alcoa determines that any activity being performed at the Site is creating or has the potential to create a danger to human health or the environment, Alcoa may cease such activities. Alcoa shall notify Ecology's project coordinator as soon as possible, but no later than twenty-four (24) hours after making such determination or ceasing such activities. Upon Ecology's direction Alcoa shall provide Ecology with documentation of the basis for the determination or cessation of such activities. If Ecology disagrees with Alcoa's cessation of activities, it may direct Alcoa to resume such activities.

If Ecology concurs with or orders a work stoppage pursuant to Section VIII. K (Endangerment), Alcoa's obligations with respect to the ceased activities shall be suspended until Ecology determines the danger is abated, and the time for performance of such activities, as well as the time for any other work dependent upon such activities, shall be extended in accordance with Section VIII. J (Extension of Schedule) for such period of time as Ecology determines is reasonable under the circumstances.

Nothing in this Order shall limit the authority of Ecology, its employees, agents, or contractors to take or require appropriate action in the event of an emergency.

L. Reservation of Rights

Ecology reserves its rights under Chapter 70.105D RCW, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health and the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

M. Transfer of Interest in Property

Before any voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by Alcoa, Alcoa shall provide for

continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

Further, prior to Alcoa's transfer of any interest in all or any portion of the Site, Alcoa shall provide a copy of this Order to any prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and at least thirty (30) days prior to any transfer, Alcoa shall notify Ecology of said transfer. Upon transfer of any interest, Alcoa shall restrict uses and activities to those consistent with this Order and notify all transferees of the restrictions on the use of the property.

N. Compliance With Applicable Laws

- 1. All actions carried out by Alcoa pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in RCW 70.105D.090. The permits or specific federal, state or local requirements that the agency has determined are applicable and that are known at the time of entry of this Order have been identified in Exhibit C.
- 2. Pursuant to RCW 70.105D.090(1), Alcoa is exempt from the procedural requirements of Chapters 70.94, 70.95, 70.105, 77.55, 90.48, and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals. However, Alcoa shall comply with the substantive requirements of such permits or approvals. The exempt permits or approvals and the applicable substantive requirements of those permits or approvals, as they are known at the time of entry of this Order, have been identified in Exhibit C.

Alcoa has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order. In the event either Ecology or Alcoa determines that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order, it shall promptly notify the other party of its determination. Ecology shall determine whether Ecology or Alcoa shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, Alcoa shall promptly consult with the appropriate state and/or

local agencies and provide Ecology with written documentation from those agencies of the substantive requirements those agencies believe are applicable to the remedial action. Ecology shall make the final determination on the additional substantive requirements that must be met by Alcoa and on how Alcoa must meet those requirements. Ecology shall inform Alcoa in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. Alcoa shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

3. Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70.105D.090(1) would result in the loss of approval from a federal agency that is necessary for the State to administer any federal law, the exemption shall not apply and Alcoa shall comply with both the procedural and substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to obtain permits.

O. Land Use Restrictions

Alcoa shall record a Restrictive Covenant with the office of the Clark County Auditor within ten (10) days of the completion date (March 31, 2009) described in this Order if contaminated soil remains on Site above MTCA Method A or B cleanup levels. The Restrictive Covenant shall restrict future uses of the Site. Alcoa shall provide Ecology with a copy of the recorded Restrictive Covenant within thirty (30) days of the recording date.

P. Financial Assurances

Pursuant to WAC 173-340-440(11), Alcoa shall maintain sufficient and adequate financial assurance mechanisms to cover all costs associated with the operation and maintenance of the remedial action at the Site, including institutional controls, compliance monitoring, and corrective measures.

Within sixty (60) days of the effective date of this Order, Alcoa shall submit to Ecology for review and approval an estimate of the costs that it will incur in carrying out the terms of this Order, including operation and maintenance, and compliance monitoring. Within sixty (60) days

after Ecology approves the aforementioned cost estimate, Alcoa shall provide proof of financial assurances sufficient to cover all such costs in a form acceptable to Ecology.

Alcoa shall adjust the financial assurance coverage and provide Ecology's project coordinator with documentation of the updated financial assurance for:

- 1. Inflation, annually, within thirty (30) days of the anniversary date of the entry of this Order; or if applicable, the modified anniversary date established in accordance with this Section, or if applicable, ninety (90) days after the close of Alcoa's fiscal year if the financial test or corporate guarantee is used; and
- 2. Changes in cost estimates, within thirty (30) days of issuance of Ecology's approval of a modification or revision to the cleanup action plan (CAP) that result in increases to the cost or expected duration of remedial actions. Any adjustments for inflation since the most recent preceding anniversary date shall be made concurrent with adjustments for changes in cost estimates. The issuance of Ecology's approval of a revised or modified CAP will revise the anniversary date established under this Section to become the date of issuance of such revised or modified CAP.

Q. Periodic Review

As remedial action continues at the Site, Ecology shall review the progress of remedial action at the Site, and shall also review the data accumulated as a result of monitoring the Site as often as is necessary and appropriate under the circumstances. At least every five (5) years after the initiation of cleanup action at the Site, Alcoa shall meet with Ecology at Ecology's request and shall discuss the status of the Site and the need, if any, for further remedial action at the Site. Ecology reserves the right to require further remedial action at the Site under appropriate circumstances. This provision shall remain in effect for the duration of this Order.

IX. SATISFACTION OF ORDER

The provisions of this Order shall be deemed satisfied upon Alcoa's receipt of written notification from Ecology that Alcoa has completed the remedial activity required by this Order, and that Alcoa has complied with all other provisions of this Enforcement Order.

X. ENFORCEMENT

Pursuant to RCW 70.105D 050, this Order may be enforced as follows:

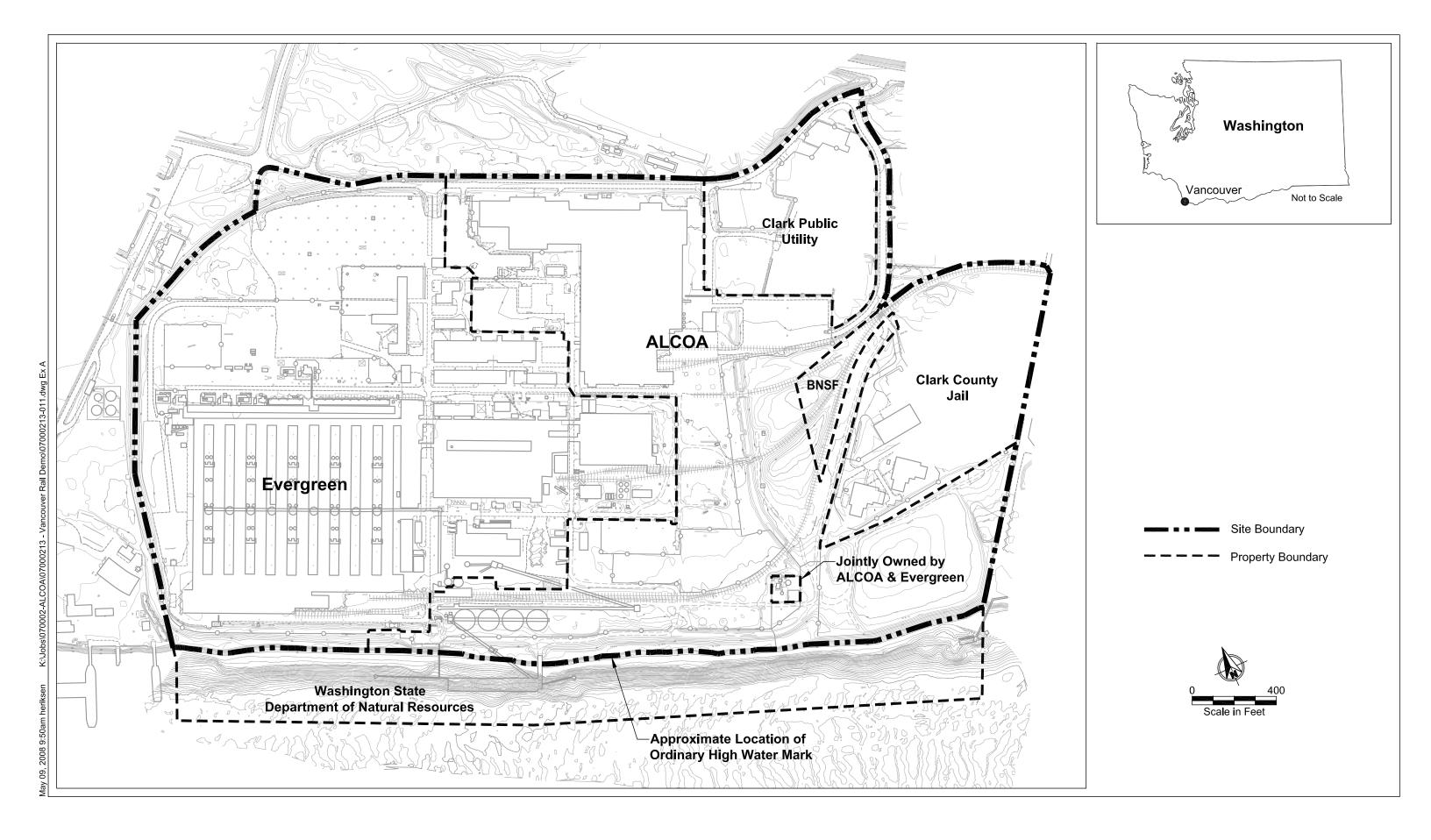
- A. . . The Attorney General may bring an action to enforce this Order in a state or federal court.
- B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the Site.
- C. In the event Alcoa refuses, without sufficient cause, to comply with any term of this Order, Alcoa will be liable for:
 - 1 Up to three (3) times the amount of any costs incurred by the State of Washington as a result of its refusal to comply; and
 - 2. Civil penalties of up to twenty-five thousand dollars (\$25,000) per day for each day it refuses to comply
- D. This Order is not appealable to the Washington Pollution Control Hearings Board. This Order may be reviewed only as provided under RCW 70.105D.060.

Effective date of this Order:

STATE OF WASHINGTON

Carol Kraege, P. E. Industrial Section Manager

Solid Waste and Financial Assistance Program





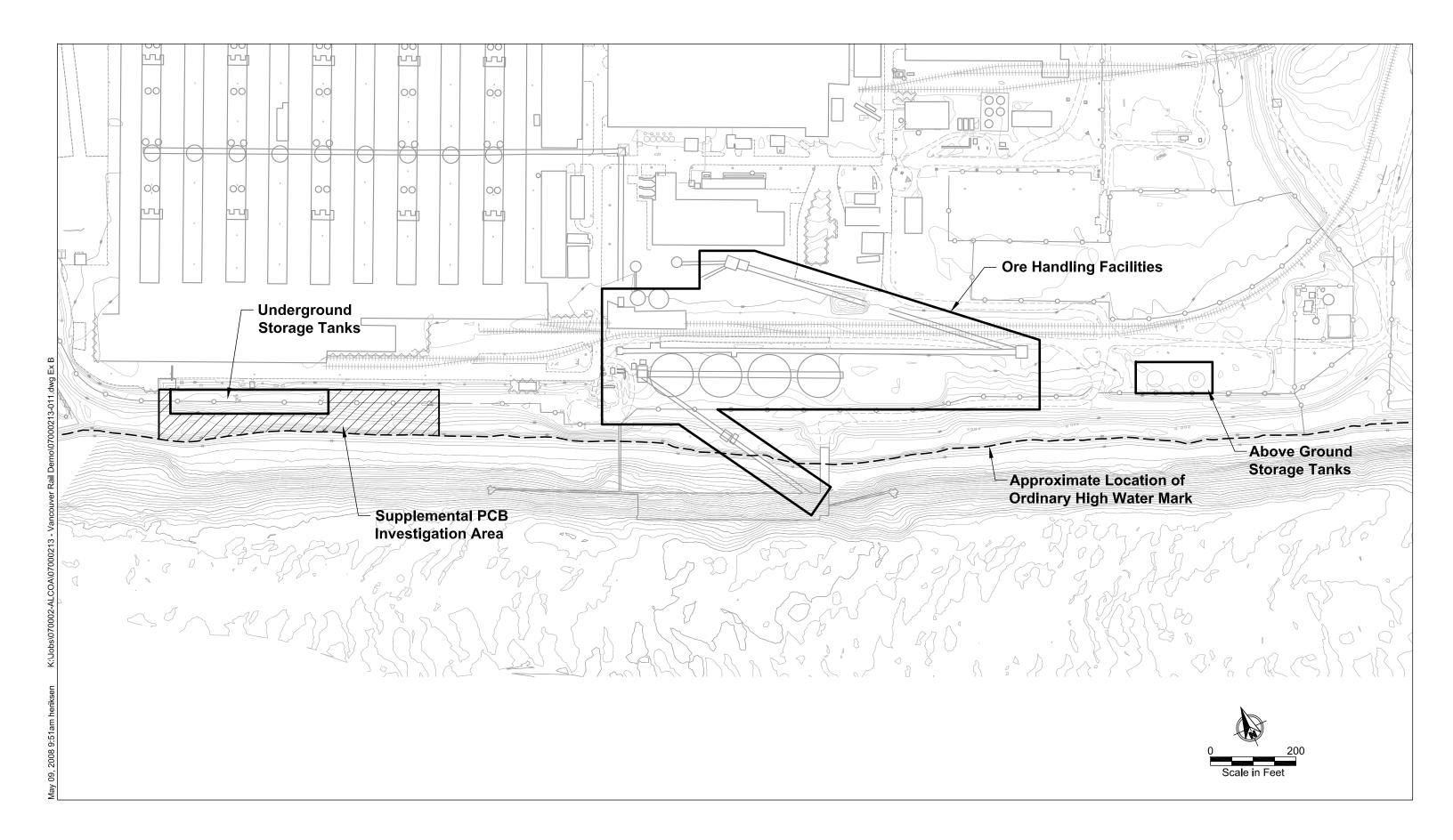




EXHIBIT C

1. List of Required Permits

- City of Vancouver Grading Permit
- Vancouver County Demolition Permit and Grading Permit

2. Applicable Substantive Requirements of Exempt Permits or Approvals

- Chapter 90.58 RCW (Shoreline Management Act of 1971)
- Shoreline Major Substantial Development Permit City of Vancouver, Municipal Code Chapter 20.760
- Shoreline Substantial Development Permit Clark County, County Code Chapter 40-460