UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10

In the Matter of: 

Reynolds Metals Company 
Superfund Site 

Reynolds Metals Company, Inc. 
and 

Alcoa Inc., 

Respondents 

Proceeding Under Section 106(a) of the 
Comprehensive Environmental Response, 
Compensation, and Liability Act of 1980, 
as amended (42 U.S.C. § 9606(a)). 

UNILATERAL ADMINISTRATIVE 
ORDER FOR REMEDIAL DESIGN 
AND REMEDIAL ACTION 

U.S. EPA Docket No. 
CERCLA 10-2006-0012

ADMINISTRATIVE ORDER 
FOR REMEDIAL DESIGN AND REMEDIAL ACTION

I. INTRODUCTION AND JURISDICTION

1. This Order directs Respondents, Reynolds Metals Company (“RMC”) 
and Alcoa Inc. (“Alcoa”), to perform the remedial design and remedial action to address 
groundwater contamination as set forth in the Record of Decision for the Reynolds Metals 
Superfund site (“Site”) dated September 30, 2002. The four components of the interim remedy 
directed by this Order are: a) Install extraction wells in the east potliner and scrap yard areas 

RD/RA UAO 
Reynolds Metals Superfund Site
to remove and contain groundwater contaminated with high levels of fluoride; b) Modify the
operation of existing production wells to limit the further spread of fluoride in the groundwater;
c) Discharge groundwater from the combined production wells and focused extraction system
to the Columbia River through the existing NPDES outfall; and d) Monitor groundwater to
evaluate the effectiveness of source removal and focused extraction.

2. This Order is issued to Respondents by the United States Environmental
Protection Agency ("EPA") under the authority vested in the President of the United States by
Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability
Act of 1980, as amended ("CERCLA"), 42 U.S.C. 9606(a). This authority was delegated to the
Administrator of EPA on January 23, 1987, by Executive Order 12580 (52 Fed. Reg. 2926,
January 29, 1987), and was further delegated to EPA Regional Administrators on September
13, 1987, by EPA Headquarters Delegation No. 14-14-B, and was further delegated by the
Regional Administrator of Region 10 to the Director, Office of Environmental Cleanup, by
Region 10 Delegations Nos. 14-14-A and 14-14-B.

II. FINDINGS OF FACT

3. The Site includes a former primary aluminum reduction plant, currently
demolished, and surrounding property located about 20 miles east of Portland, Oregon and
about 1.25 miles north of the City of Troutdale, Oregon. The property is bordered by the
Columbia River to the north, the Sandy River to the east, the Troutdale Airport to the south, and
Salmon Creek to the west. A United States Army Corps of Engineers (COE) flood control dike
runs approximately east-west through the northern and eastern portions of the property. Site
areas north and east of the dike are located within the 100-year floodplain of the Columbia and
Sandy Rivers.

4. In 1941, the United States constructed the aluminum reduction plant to
provide materials for military application during World War II. The Aluminum Company of
America (now Alcoa Inc.) operated the plant for the United States until 1946. RMC, leased the plant from the United States in 1946 and purchased it from the United States in 1949. In 2000, RLM Acquisition Corp., a wholly-owned subsidiary of Alcoa, acquired 100% of the outstanding common stock of RMC. RML Acquisition Corp. merged with and into RMC with the surviving corporation being Reynolds Metals Company. RMC is a wholly-owned subsidiary of Alcoa.

5. Plant operations, including past waste disposal, spills, leaks and other releases, have caused soil and groundwater contamination at and from the Site. The waste material at the Site includes process and non-process wastes and residues. Process wastes were primarily associated with the aluminum reduction areas, the carbon plant, and the casthouse. Non-process wastes included demolition debris, scrap equipment and construction materials. Several waste disposal areas are located on the Site. The Remedial Investigation and the Record of Decision contain additional details regarding specific waste operations, waste disposal areas, soil and groundwater contamination. Removal Action and Remedial Action reports for the individual source areas, monthly progress reports and groundwater monitoring reports contain recent information regarding removal and remedial actions and current site conditions.


7. In September 1995, Respondent RMC entered into an Administrative Order on Consent addressing the Remedial Investigation and Feasibility Study (“RI/FS”) and performance of early actions at the Site under EPA’s oversight. From about September 1995 to about July 2002, Respondent RMC undertook and completed the RI/FS for the Site and the early actions, which included excavation and off-site disposal of waste material from the east.
potliner, the scrap yard, and other areas in order to remove sources of groundwater contamination.

8. Pursuant to Section 117 of CERCLA, 42 U.S.C. § 9617, EPA published notice of the proposed plan for interim remedial action at the Site on August 28, 2002, and provided opportunity for public comment on the proposed remedial action.

9. EPA selected the interim remedial action for the Site in a Record of Decision ("ROD") dated September 30, 2002, on which the State has given its concurrence. The ROD is attached to this Order as Attachment 1 and is incorporated by reference. The ROD is supported by an administrative record that contains the documents and information upon which EPA based the selection of the response action.

10. In July 2003, EPA issued a Unilateral Administrative Order to Respondent RMC, U.S. EPA Docket No. CERCLA 10-2003-0115, to address three components of the interim remedial action set forth in the ROD: 1. the cleanup of contaminated process residue in Company Lake; 2. the cleanup of waste material in the North Landfill; and 3. the cleanup of waste and soil in the South Landfill. The work required under the 2003 Unilateral Administrative Order was required to complete the removal of the sources of contamination to groundwater. Additional work is required to reduce the fluoride mass in shallow and intermediate groundwater, which is also a source of contamination to deep groundwater that has been used as a source of drinking water, and to provide hydraulic control of the contaminant plumes to prevent further migration to the Sandy River.

11. Groundwater both north and south of Company Lake has been affected by the leaching of constituents from the process residue. Constituents, primarily fluoride, have migrated from sediment to groundwater. Fluoride concentrations exceed the federal and State Safe Drinking Water Act standards, known as maximum contaminant levels (MCLs) which are set at 4 mg/L for fluoride. The highest concentrations detected in groundwater in the vicinity
of Company Lake are 20 to 30 milligrams per liter (mg/L), with peak values up to 1,100 mg/L in the silt unit beneath South Landfill. Highest concentrations were measured in the South Plant area beneath and adjacent to the scrap yard, east potliner and South Landfill areas. Six metals (antimony, arsenic, beryllium, chromium, lead, and nickel) were detected above MCLs; recent groundwater data shows that metals and cyanide above the MCL are not widespread and generally limited to the shallow silt unit.

12. In April 2005, Respondent RMC discontinued pumping its production wells, which provided some measure of hydraulic control of the plume in the South Plant area. Groundwater modeling of the plume in the South Plant area was performed to predict plume migration without pumping. It included an analysis of fluoride concentrations in groundwater and estimated future discharges of fluoride-contaminated groundwater to the Columbia and Sandy Rivers. The analysis showed that there would be a substantial increase in the fluoride mass and concentration discharged to the Sandy River over the next few years and continuing for several decades.

13. A survey of groundwater uses within a 1-mile radius of the Site was conducted to identify local groundwater uses. The survey identified 17 domestic wells, 5 municipal wells, and irrigation and industrial wells. Only two active wells are potentially downgradient from the Site, including an industrial well at Sundial Marine Tug & Barge Works, Inc. (223 feet deep) and a domestic well (not currently used for drinking water consumption) at Gresham Sand & Gravel (127 feet deep).

14. On-site deep production wells previously supplied process water and drinking water for the aluminum reduction plant. Tap water is a composite from multiple production wells. Respondent RMC also provides bottled water for use by its employees.

15. The remedy selected for the contaminated groundwater at the site includes:

a) Installing extraction wells in the east potliner and scrap yard areas to remove and contain
groundwater contaminated with high levels of fluoride; b) Modifying the operation of existing
production wells to limit the further spread of fluoride in the groundwater; c) Discharging
groundwater from the combined production wells and focused extraction system to the
Columbia River through the existing NPDES outfall; and d) Monitoring groundwater to
evaluate the effectiveness of source removal and focused extraction.

III. CONCLUSIONS OF LAW AND DETERMINATIONS

16. The Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

17. Respondents are each a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

18. Respondents are each a "liable party" as defined in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and are subject to this Order under Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

19. The substances listed in Paragraph 11 are found at the Site and are "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

20. These hazardous substances have been released from the Site into the soil and groundwater.

21. The past and present disposal and migration of hazardous substances from the Site are a "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

22. The potential for future migration of hazardous substances from the Site poses a threat of a "release" as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

23. The release and threat of release of one or more hazardous substances from the facility may present an imminent and substantial endangerment to the public health, welfare, or the environment.
24. The contamination and endangerment at this Site constitute an indivisible injury. The actions required by this Order are necessary to protect the public health, welfare, and the environment.

IV. NOTICE TO THE STATE

25. On August 3, 2005, prior to issuing this Order, EPA notified the State of Oregon, Department of Environmental Quality, that EPA would be issuing this Order.

V. ORDER

26. Based on the foregoing, Respondents are hereby ordered to comply with the provisions of this Order, including all documents attached or incorporated by reference into this Order and all schedules and deadlines identified in, attached to, or incorporated by reference into this Order.

VI. DEFINITIONS

27. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA, or in regulations promulgated under CERCLA, shall have the meaning assigned to them in the statute or its implementing regulations. Whenever terms listed below are used in this Order or in the documents attached to this Order or incorporated by reference into this Order, the following definitions shall apply:


B. "Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the end of the next working day.

C. "EPA" shall mean the United States Environmental Protection Agency.

D. "ODEQ" shall mean the Oregon Department of Environmental Quality.
E. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substance Pollution Contingency Plan, promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, including any amendments thereto.

F. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.

G. "Performance Standards" shall mean those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations, identified in the Record of Decision and Statement of Work, that the Remedial Action and Work Plans required by this Order must attain and maintain.

H. "Record of Decision" or "ROD" shall mean the EPA Record of Decision relating to the Site signed on September 30, 2003, by the Director of the Environmental Cleanup Office, EPA Region 10, and all attachments thereto.

I. "Remedial Action" or "RA" shall mean those activities, except for Operation and Maintenance, to be undertaken by Respondents to implement the SOW and the Work Plan(s) approved by EPA, including any additional activities required under Sections X, XI, XII, XIII, and XIV of this Order.

J. "Response Costs" shall mean all costs, including direct costs, indirect costs, and accrued interest incurred by the United States to perform or support response actions at the Site. Response costs include, but are not limited to, the costs of overseeing the Work, such as the costs of reviewing or developing plans, reports, and other items pursuant to this Order and costs associated with verifying the Work.

K. "Statement of Work" or "SOW" shall mean the statement of work for implementation of the Work Plans and Remedial Action at the Site, as set forth in Attachment 2 to this Order. The Statement of Work is incorporated into this Order and is an enforceable part of this Order.
L. "Section" shall mean a portion of this Order identified by a Roman numeral and includes one or more paragraphs.

M. "Site" shall mean the Reynolds Metals Company Superfund Site located in Troutdale, Oregon, as described in the Record of Decision.

N. "State" shall mean the State of Oregon.

O. "United States" shall mean the United States of America.

P. "Work" shall mean all activities Respondents are required to perform under this Order, including Work Plans, Remedial Action, and any activities required to be undertaken pursuant to Sections VII through XXIV, and XXVII of this Order.

VII. NOTICE OF INTENT TO COMPLY

28. Respondents shall provide, not later than seven (7) days after the effective date of this Order, written notice to EPA's Remedial Project Manager ("RPM") stating whether they will comply with the terms of this Order. If Respondents do not unequivocally commit to perform the remedial design and remedial action as provided by this Order, they shall be deemed to have violated this Order and to have failed to comply with this Order. Respondents’ written notice shall describe, using facts that exist on or prior to the effective date of this Order, any "sufficient cause" defenses asserted by Respondents under Sections 106(b) and 107(c)(3) of CERCLA. The absence of a response by EPA to the notice required by this paragraph shall not be deemed to be acceptance of Respondents’ assertions.

VIII. PARTIES BOUND

29. This Order shall apply to and be binding upon Respondents, their directors, officers, employees, agents, successors, and assigns. No change in the ownership, corporate status, or other control of Respondents shall alter any of Respondents’ responsibilities under this Order.

30. Respondents shall provide a copy of this Order to any prospective
owners or successors before a controlling interest in Respondents’ assets, property rights, or stock are transferred to the prospective owner or successor. Respondents shall provide a copy of this Order to each contractor, subcontractor, laboratory, or consultant retained to perform any Work under this Order, within seven (7) days after the effective date of this Order or on the date such services are retained, whichever date occurs later. Respondents shall also provide a copy of this Order to each person representing Respondents with respect to the Site or the Work and shall condition all contracts and subcontracts entered into hereunder upon performance of the Work in conformity with the terms of this Order. With regard to the activities undertaken pursuant to this Order, each contractor and subcontractor shall be deemed to be related by contract to the Respondents within the meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3). Notwithstanding the terms of any contract, Respondents are responsible for compliance with this Order and for ensuring that its contractors, subcontractors, and agents comply with this Order, and perform any Work in accordance with this Order.

31. Within fourteen (14) days after the effective date of this Order, Respondents shall record a copy or copies of this Order in the appropriate governmental office where land ownership and transfer records are filed or recorded, and shall ensure that the recording of this Order is indexed to the titles of each and every property at the Site so as to provide notice to third parties of the issuance and terms of this Order with respect to those properties. Respondents shall, within thirty (30) days after the effective date of this Order, send notice of such recording and indexing to EPA.

32. Not later than sixty (60) days prior to any transfer of any real property interest in any property included within the Site, Respondents shall submit a true and correct copy of the transfer document(s) to EPA, and shall identify the transferee by name, principal business address, and effective date of the transfer.

IX. WORK TO BE PERFORMED
33. Respondents shall cooperate with EPA in providing information regarding the Work to the public. As requested by EPA, Respondents shall participate in the preparation of such information for distribution to the public and in public meetings which may be held or sponsored by EPA to explain activities at or relating to the Site.

   Remedial Design

34. Within fourteen (14) days after the effective date of the Order, Respondents shall submit a Draft Design for the Focused Extraction/Production Well Optimization System to EPA for review and approval. The Design submittal shall include the piping alignment, connections and layout, process & instrumentation, and discharge basin, and be developed consistent with the attached Statement of Work;

35. Upon EPA approval, the Final Designs are incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order.

   Remedial Action

36. Not later than fourteen (14) days after the effective date of this Order, Respondents shall submit a Focused Extraction/Production Well Optimization Work Plan ("FE/PWO Work Plan") to EPA for review and approval. The Work Plan shall be developed in accordance with the ROD and the attached Statement of Work. The Work Plan shall include methodologies, plans, and schedules for completion of all remedial action tasks identified in the Statement of Work and shall identify the initial formulation of Respondents’ Remedial Action Project Team (including the Supervising Contractor).

37. Upon approval by EPA, the Work Plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order.

38. Upon approval of the Work Plan by EPA, Respondents shall implement the Work Plans according to the schedules in the Work Plan. Unless otherwise directed by EPA, Respondents shall not commence remedial action at the Site prior to approval of the ERA.
Work Plans.

39. If Respondents seek to retain a construction contractor to assist in the performance of the Remedial Action, then Respondents shall submit a copy of the contractor solicitation documents to EPA.

40. Within ten (10 days) after EPA approves the Work Plan, Respondents shall notify EPA, in writing, of the name, title, and qualifications of any construction contractor proposed to be used in carrying out work under this Order. EPA shall thereafter provide written notice of the name(s) of the contractor(s) it approves, if any. Respondents may select any approved contractor from that list and shall notify EPA of the name of the contractor selected within five (5) days of the award of the contract. If, at any time, Respondents propose to change the construction contractor, Respondents shall notify EPA and shall obtain approval from EPA as provided in this paragraph, before the new construction contractor performs any work under this Order. If EPA disapproves of the selection of any contractor as the construction contractor, Respondents shall submit a list of contractors that would be acceptable to them to EPA within thirty (30) days after receipt of EPA's disapproval of the contractor previously selected.

41. The Work performed by Respondents pursuant to this Order shall, at a minimum, achieve the Performance Standards specified in the Record of Decision and in Section III of the Statement of Work.

42. Notwithstanding any action by EPA, Respondents remain fully responsible for achievement of the Performance Standards in the Record of Decision and Statement of Work. Nothing in this Order, or in EPA's approval of the Statement of Work, or in the Work Plan, or approval of any other submission, shall be deemed to constitute a warranty or representation of any kind by EPA that full performance of the Remedial Action will achieve the Performance Standards set forth in the ROD and in Section III of the Statement of Work.
Respondents’ compliance with such approved documents does not foreclose EPA from seeking additional work to achieve the applicable Performance Standards.

43. Respondents shall, prior to any off-Site shipment of hazardous substances from the Site to an out-of-state waste management facility, provide written notification to the appropriate state environmental official in the receiving state and to EPA's RPM of such shipment of hazardous substances. However, the notification of shipments shall not apply to any off-Site shipments when the total volume of all shipments from the Site to the state will not exceed ten (10) cubic yards.

a. The notification shall be in writing and shall include the following information, where available: (1) the name and location of the facility to which the hazardous substances are to be shipped; (2) the type and quantity of the hazardous substances to be shipped; (3) the expected schedule for the shipment of the hazardous substances; and (4) the method of transportation. Respondent shall notify the receiving state of major changes in the shipment plan, such as a decision to ship the hazardous substances to another facility within the same state, or to a facility in another state.

b. The identity of the receiving facility and state will be determined by Respondent following the award of the contract for Remedial Action construction. Respondent shall provide all relevant information, including information under the categories noted in Paragraph 49.a above, on the off-Site shipments as soon as practicable after the award of the contract and before the hazardous substances are actually shipped.

44. Within twenty (20) days after Respondents conclude that the Remedial Action has been fully performed, Respondents shall so notify EPA and shall schedule and conduct a pre-certification inspection to be attended by Respondents and EPA. The pre-certification inspection shall be followed by a written report submitted by a registered professional engineer and Respondents’ Project Coordinator within thirty (30) days of the
inspection, certifying that the Remedial Action has been completed in full satisfaction of the
requirements of this Order. If, after completion of the pre-certification inspection and receipt
and review of the written report, EPA determines that the Remedial Action or any portion
thereof has not been completed in accordance with this Order, EPA shall notify Respondents, in
writing, of the activities that must be undertaken to complete the Remedial Action and shall set
forth in the notice a schedule for performance of such activities. Respondents shall perform all
activities described in the notice in accordance with the specifications and schedules established
therein. If EPA concludes, following the initial or any subsequent certification of completion
by Respondents, that the Remedial Action has been fully performed in accordance with this
Order, EPA may notify Respondents that the Remedial Action has been fully performed. EPA's
notification shall be based on present knowledge and Respondents’ certification to EPA, and
shall not limit EPA's right to perform periodic reviews pursuant to Section 121(c) of CERCLA,
42 U.S.C. § 9621(c), or to take or require any action that, in the judgment of EPA, is
appropriate at the Site, in accordance with 42 U.S.C. §§ 9604, 9606, or 9607.

45. Within one hundred and twenty days (120) days after Respondents
conclude that all phases of the Work have been fully performed and that the Performance
Standards have been attained, Respondents shall submit to EPA a written report by a registered
professional engineer certifying that the Work has been completed in full satisfaction of the
requirements of this Order. The report shall include the items described in Section V, Task 3 of
the SOW. EPA shall require such additional activities as may be necessary to complete the
Work or EPA may, based upon present knowledge and Respondents’ certification to EPA, issue
written notification to Respondents that the Work has been completed, as appropriate, in
accordance with the procedures set forth in Paragraph 44 for Respondents’ certification of
completion of the Remedial Action. EPA's notification shall not limit EPA's right to perform
periodic reviews pursuant to Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or
require any action that, in the judgment of EPA, is appropriate at the Site, in accordance with
42 U.S.C. §§ 9604, 9606, or 9607.

X. FAILURE TO ATTAIN PERFORMANCE STANDARDS

46. In the event that EPA determines that additional response activities are
necessary to meet applicable Performance Standards, EPA may notify Respondents that
additional response actions are necessary.

47. Unless otherwise stated by EPA, within thirty (30) days of receipt of
notice from EPA that additional response activities are necessary to meet any applicable
Performance Standards, Respondents shall submit for approval by EPA a Work Plan for the
additional response activities. The plan shall conform to the applicable requirements of
Sections IX, XVI, and XVII of this Order. Upon EPA's approval of the plan pursuant to
Section XIV, Respondents shall implement the Plan for additional response activities in
accordance with the provisions and schedule contained therein.

XI. EPA PERIODIC REVIEW

48. Under Section 121(c) of CERCLA, 42 U.S.C. § 9621(c), and any
applicable regulations, EPA may review the Site to assure that the Work performed pursuant to
this Order adequately protects human health and the environment. Until such time as EPA
certifies completion of the Work, Respondents shall conduct the requisite studies,
investigations, or other response actions as determined necessary by EPA in order to permit
EPA to conduct the review under Section 121(c) of CERCLA. As a result of any review
performed under this paragraph, Respondents may be required to perform additional Work or to
modify Work previously performed.

XII. ADDITIONAL RESPONSE ACTIONS

49. EPA may determine that, in addition to the Work identified in this Order
and attachments to this Order, additional response activities may be necessary to protect human
health and the environment. If EPA determines that additional response activities are necessary, EPA may require Respondents to submit a Work Plan for additional response activities. EPA may also require Respondents to modify any plan, design, or other deliverable required by this Order, including any approved modifications.

50. Not later than thirty (30) days after receiving EPA's notice that additional response activities are required pursuant to this Section, Respondents shall submit a Work Plan for the response activities to EPA for review and approval. Upon approval by EPA, the Work Plan is incorporated into this Order as a requirement of this Order and shall be an enforceable part of this Order. Upon approval of the Work Plan by EPA, Respondents shall implement the Work Plan according to the standards, specifications, and schedule in the approved Work Plan. Respondents shall notify EPA of their intent to perform such additional response activities within seven (7) days after receipt of EPA's request for additional response activities.

XIII. ENDANGERMENT AND EMERGENCY RESPONSE

51. In the event of any action or occurrence during the performance of the Work which causes or threatens to cause a release of a hazardous substance or which may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action to prevent, abate, or minimize the threat, and shall immediately notify EPA's Remedial Project Manager ("RPM") or, if the RPM is unavailable, EPA's Alternate RPM. If neither of these persons is available, Respondents shall notify the EPA Region 10, Emergency Response and Site Cleanup Unit, 24 Hour Duty Officer, 206-553-1263. Respondents shall take such action in consultation with EPA's RPM and in accordance with all applicable provisions of this Order, including, but not limited to, the Health and Safety Plan and the Contingency Plan.

52. In the event that Respondents fail to take appropriate response action as required by this Section, and EPA takes that action instead, Respondents shall reimburse EPA...
for all costs of the response action not inconsistent with the NCP. Respondent shall pay the response costs in the manner described in Section XXIV of this Order, within thirty (30) days of Respondents’ receipt of demand for payment.

53. Nothing in this Section shall be deemed to limit any authority of the United States to take, direct, or order all appropriate action to protect human health and the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances on, at, or from the Site.

**XIV. EPA REVIEW OF SUBMISSIONS**

54. After review of any deliverable, plan, report, or other item which is required to be submitted for review and approval pursuant to this Order, EPA may: (a) approve the submission; (b) approve the submission with modifications; (c) disapprove the submission and direct Respondents to resubmit the document after incorporating EPA's comments; or (d) disapprove the submission and assume responsibility for performing all or any part of the response action. As used in this Order, the terms "approval by EPA", "EPA approval", or a similar term means the action described in (a) or (b) of this paragraph.

55. In the event of approval or approval with modifications by EPA, Respondents shall proceed to take any action required by the plan, report, or other item, as approved or modified by EPA.

56. Upon receipt of a notice of disapproval or a request for a modification, Respondents shall, within twenty-one (21) days or such longer time as specified by EPA in its notice of disapproval or request for modification, correct the deficiencies and resubmit the plan, report, or other item for approval. Notwithstanding the notice of disapproval, or approval with modifications, Respondents shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission.
57. If any submission is not approved by EPA, Respondents shall be deemed to be in violation of this Order.

**XV. PROGRESS REPORTS**

58. In addition to the other deliverables set forth in this Order, Respondents shall provide monthly progress reports to EPA with respect to actions and activities undertaken pursuant to this Order. The progress reports shall be submitted on or before the 10th day of each month following the effective date of this Order. Respondents’ obligation to submit progress reports continues until EPA gives Respondents written notice under Paragraph 45. At a minimum, these progress reports shall: (1) describe the actions which have been taken to comply with this Order during the prior month; (2) include all results of sampling and tests and all other data received by Respondents and not previously submitted to EPA; (3) describe all work planned for the next 30 days with schedules relating such work to the overall project schedule for RD/RA completion; and (4) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

**XVI. QUALITY ASSURANCE, SAMPLING, AND DATA ANALYSIS**

59. Respondents shall use the quality assurance, quality control, and chain-of-custody procedures described in the "EPA NEIC Policies and Procedures Manual", May 1978, revised May 1986, EPA-330/9-78-001-R, EPA's "Guidelines and Specifications for Preparing Quality Assurance Program Documentation", June 1, 1987, EPA's "Data Quality Objective Guidance", (EPA/540/G87/003 and 004), and any amendments to these documents, while conducting all sample collection and analysis activities required herein by any plan. To provide quality assurance and maintain quality control, Respondents shall:

a. Use only laboratories which have a documented Quality Assurance Program that complies with EPA guidance document QAMS-005/80.
b. Ensure that the laboratory used by the Respondents for analyses performs according to a method or methods deemed satisfactory to EPA and submits all protocols to be used for analyses to EPA at least fourteen (14) days before beginning analysis.

c. Ensure that EPA personnel and EPA's authorized representatives are allowed access to the laboratory and personnel utilized by the Respondents for analyses.

60. Respondents shall notify EPA not less than fourteen (14) days in advance of any sample collection activity. At the request of EPA, Respondents shall allow split or duplicate samples to be taken by EPA or its authorized representatives, of any samples collected by Respondents with regard to the Site or pursuant to the implementation of this Order. In addition, EPA shall have the right to take any additional samples that EPA deems necessary.

XVII. COMPLIANCE WITH APPLICABLE LAWS

61. All activities by Respondents pursuant to this Order shall be performed in accordance with the requirements of all Federal and state laws and regulations. EPA has determined that the activities contemplated by this Order are consistent with the NCP.

62. Except as provided in Section 121(e) of CERCLA and 40 C.F.R. 300.400(e), no permit shall be required for any portion of the Work conducted entirely on-Site. Where any portion of the Work requires a federal or state permit or approval, Respondents shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.

63. This Order is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

64. All materials removed from the Site shall be disposed of or treated at a facility approved by EPA's RPM and in accordance with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3); with the “Revised Procedures for Implementing Off-Site Response
Actions,” OSWER Directive 9834.11, November 13, 1987; and with all other applicable, federal, state, and local requirements.

XVIII. REMEDIAL PROJECT MANAGER

65. All communications, whether written or oral, from Respondents to EPA shall be directed to EPA's Remedial Project Manager or Alternate Remedial Project Manager. Respondents shall submit to EPA three (3) copies of all documents, including plans, reports, and other correspondence, which are developed pursuant to this Order, and shall send these documents by regular mail, unless otherwise requested.

EPA's Remedial Project Manager is:

Chip Humphrey  
U.S. Environmental Protection Agency  
Oregon Operations Office  
811 SW 6th Street, 3rd Floor  
Portland, Oregon 97204

66. EPA has the unreviewable right to change its Remedial Project Manager or Alternate Remedial Project Manager. If EPA changes its Remedial Project Manager or Alternate Remedial Project Manager, EPA will inform Respondents, in writing, of the name, address, and telephone number of the new Remedial Project Manager or Alternate Remedial Project Manager.

67. EPA's RPM and Alternate RPM shall have the authority lawfully vested in a Remedial Project Manager ("RPM") and On-Scene Coordinator ("OSC") by the NCP, 40 C.F.R. Part 300. EPA's RPM or Alternate RPM shall have authority, consistent with the NCP, to halt any work required by this Order, and to take any necessary response action.

68. Within ten (10) days after the effective date of this Order, Respondents shall designate its Project Coordinator and shall submit the name, address, and telephone number of the Project Coordinator to EPA for review and approval. Respondents’ Project Coordinator shall be responsible for overseeing Respondents’ implementation of this Order. If
Respondents wish to change their Project Coordinator, Respondents shall provide written notice to EPA, five (5) days prior to changing the Project Coordinator, of the name and qualifications of the new Project Coordinator. Respondents’ selection of a Project Coordinator shall be subject to EPA approval.

**XIX. ACCESS TO SITE NOT OWNED BY RESPONDENT**

69. If the Site or any other area required to implement the terms of this Order, is owned in whole or in part by parties other than Respondents, Respondents shall use their best efforts to obtain site access agreements from the present owner(s) within twenty-one (21) days of the effective date of this Order. Respondents’ best efforts shall include providing reasonable compensation to any off-Site property owner. Such agreements shall provide access for EPA and its contractors, the State and its contractors, and Respondents or Respondents’ authorized representatives and contractors.

70. Such agreements shall specify that Respondents are not EPA's representative with respect to liability associated with Site activities. Respondents shall save and hold harmless the United States and its officials, agents, employees, contractors, subcontractors, or representatives for or from any and all claims or cause of action or other costs incurred by the United States, including, but not limited to, attorneys fees and other expenses of litigation and settlement arising from or on account of acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Order, including any claims arising from any designation of either Respondent as EPA's authorized representative under Section 104(e) of CERCLA.

71. Copies of such agreements shall be provided to EPA prior to Respondents’ initiation of field activities. If access agreements are not obtained within the time referenced above, Respondents shall immediately notify EPA of its failure to obtain access.
Subject to EPA’s non-reviewable discretion, EPA may use its legal authorities to obtain access for the Respondents, may perform those response actions with EPA contractors at the property in question, or may terminate the Order if Respondents cannot obtain access agreements. If EPA performs those tasks or activities with contractors and does not terminate the Order, Respondents shall perform all other activities not requiring access to that property, and shall reimburse EPA, pursuant to Section XXIV of this Order, for all costs incurred in performing such activities. Respondents shall integrate the results of any such tasks undertaken by EPA into its reports and deliverables. Respondents shall reimburse EPA, pursuant to Section XXIV of this Order, for all response costs (including attorney fees) incurred by the United States to obtain access for Respondents.

**XX. SITE ACCESS AND DATA/DOCUMENT AVAILABILITY**

72. If the Site or any other property where access is needed to implement the terms of this Order is owned or controlled by Respondents, Respondents shall provide to EPA and its authorized representatives and contractors, access at all reasonable times to the Site or other such property for the purpose of conducting any activity related to this Order, including but not limited to, monitoring the Work; verifying any data or information submitted to EPA; conducting investigations related to contamination at or near the Site; obtaining samples; assessing the need for or planning or implementing additional response actions; assessing implementation of quality assurance and quality control practices; inspecting and copying records, operating logs, or other documents related to work undertaken in carrying out this Order; or assessing Respondents’ compliance with this Order.

73. Respondents may assert a claim of business confidentiality covering part or all of the information submitted to EPA pursuant to the terms of this Order under 40 C.F.R. § 2.203, provided such claim is not inconsistent with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), or other provisions of the law. Any such claim shall be asserted in the manner
described by 40 C.F.R. § 2.203(b) and substantiated by Respondents at the time the claim is
made. Information determined to be confidential by EPA will be given the protection specified
in 40 C.F.R. Part 2. If no such claim accompanies the information when it is submitted to EPA,
it may be made available to the public by EPA or the State without further notice to
Respondents. Respondents shall not assert confidentiality claims with respect to any data
related to Site conditions, sampling, or monitoring.

74. Respondents shall maintain for the period during which this Order is in
effect, an index of documents that Respondents claim contain confidential business
information. The index shall contain, for each document, the date, author, addressee, and
subject of the document. Upon written request from EPA, Respondents shall submit a copy of
the index to EPA.

XXI. RECORD PRESERVATION

75. Respondents shall provide to EPA, upon request, copies of all documents
and information within their possession and/or control or that of their contractors or agents
relating to activities at the Site or to the implementation of this Order, including, but not limited
to, sampling, analysis, chain-of-custody records, manifests, trucking logs, receipts, reports,
sample traffic routing, correspondence, or other documents or information related to the Work.
Respondents shall also make available to EPA for purposes of investigation, information
gathering, or testimony, its employees, agents, or representatives with knowledge of relevant
facts concerning the performance of the Work.

76. Until ten (10) years after EPA provides notice pursuant to Paragraph 45,
Respondents shall preserve and retain all records and documents in its possession or control,
including the documents in the possession or control of their contractors and agents on and after
the effective date of this Order that relate in any manner to the Site. At the conclusion of this
document retention period, Respondents shall notify the EPA at least ninety (90) calendar days
prior to the destruction of any such record or documents, and upon request by EPA, Respondents shall deliver any such records or documents to EPA.

77. Within seven (7) days after the effective date of this Order, Respondents shall submit a written certification to EPA's RPM that it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any records, documents, or other information relating to its potential liability with regard to the Site since notification of potential liability by the United States or the state, or the filing of suit against it regarding the Site. Respondents shall not dispose of any such documents without prior approval by EPA. Respondents shall, upon EPA's request and at no costs to EPA, deliver the documents or copies of the documents to EPA.

XXII. DELAY IN PERFORMANCE

78. Any delay in performance of this Order that, in EPA's judgment, is not properly justified by Respondents under the terms of this Order shall be considered a violation of this Order. Any delay in performance of this Order shall not affect Respondents' obligations to fully perform all obligations under the terms and conditions of this Order.

79. Respondents shall notify EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to EPA's RPM or Alternate RPM within forty-eight (48) hours after Respondents first knew or should have known that a delay might occur. Respondents shall adopt all reasonable measures to avoid or minimize any such delay. Within five (5) business days after notifying EPA by telephone, Respondents shall provide written notification fully describing the nature of the delay, any justification for delay, any reason why Respondents should not be held strictly accountable for failing to comply with any relevant requirements of this Order, the measures planned and taken to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effect of the delay. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in

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performance.

XXIII. ASSURANCE OF ABILITY TO COMPLETE WORK

80. Respondents shall demonstrate their ability to complete the Work required by this Order and to pay all claims that arise from the performance of the Work by obtaining and presenting to EPA within fourteen (14) days after the effective date of this Order, one of the following: (1) a performance bond; (2) a letter of credit; (3) a guarantee by a third party; or (4) internal financial information to allow EPA to determine that Respondents have sufficient assets available to perform the Work. Respondents shall demonstrate financial assurance in the amount of five hundred thousand dollars ($500,000.). If Respondents seek to demonstrate ability to complete the remedial action by means of internal financial information, or by guaranty of a third party, it shall resubmit such information annually, on the anniversary of the effective date of this Order. If EPA determines that such financial information is inadequate, Respondents shall, within thirty (30) days after receipt of EPA's notice of determination, obtain and present to EPA for approval one of the other three (3) forms of financial assurance listed above.

81. At least seven (7) days prior to commencing any work at the Site pursuant to this Order, Respondents shall submit to EPA a certification that Respondents or its contractors and subcontractors have adequate insurance coverage or have indemnification for liabilities for injuries or damages to persons or property which may result from the activities to be conducted by or on behalf of Respondents pursuant to this Order. Respondents shall ensure that such insurance or indemnification is maintained for the duration of the Work required by this Order.

XXIV. REIMBURSEMENT OF RESPONSE COSTS

82. Respondents shall reimburse EPA, upon written demand, for all response costs incurred by the United States in overseeing Respondents’ implementation of the
requirements of this Order or in performing any response action which Respondents fail to
perform in compliance with this Order. EPA may submit to Respondents on a periodic basis an
accounting of all response costs incurred by the United States with respect to this Order. EPA's
certified Superfund Cost Recovery Package Imaging and On-Line System (SCORPIOS) cost
summary, or such other summary as certified by EPA, shall serve as the basis for demand of
payment.

83. Respondents shall, within thirty (30) days of receipt of each EPA
accounting, remit a certified or cashier's check for the amount of those costs. Checks shall be
made payable to the EPA Hazardous Substances Superfund and shall include the name of the
Site, the Site identification number, and the docket number of this Order. Checks shall be
forwarded to:

Mellon Bank
EPA Region 10 Superfund
P.O. Box 37109M
Pittsburgh, PA 15251

84. At the time of payment, Respondents shall send copies of each
transmittal letter and check to EPA's RPM.

85. In the event that payment is not made within thirty (30) days of receipt of
a demand for payment, Respondents shall pay interest on the unpaid balance. Interest shall
begin to accrue on the date of receipt of the demand and shall continue to accrue until the date
of payment.

86. For purposes of this section, interest shall accrue at the rate established
under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). The applicable rate of interest shall be
the rate in effect at the time the interest accrues. The rate of interest is subject to change on
October 1 of each year.

XXV. UNITED STATES NOT LIABLE
87. The United States, by issuance of this Order, assumes no liability for any injuries or damages to persons or property resulting from acts or omissions by Respondents, or its directors, officers, employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order. Neither EPA nor the United States may be deemed to be a party to any contract entered into by Respondents or its directors, officers, employees, agents, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order.

XXVI. ENFORCEMENT AND RESERVATIONS

88. EPA reserves the right to bring an action against Respondents under Section 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Order and not reimbursed by Respondents. This reservation shall include, but not be limited to, past costs, direct costs, indirect costs, the costs of oversight, the costs of compiling the cost documentation to support oversight cost demand, as well as accrued interest as provided in Section 107(a) of CERCLA.

89. Notwithstanding any other provision of this Order, at any time during the response action, EPA may perform its own studies, complete the response action (or any portion of the response action) as provided in CERCLA and the NCP, and seek reimbursement from Respondents for its costs, or seek any other appropriate relief.

90. Nothing in this Order shall preclude EPA from taking any additional enforcement actions, including modification of this Order or issuance of additional Orders, and/or additional remedial or removal actions as EPA may deem necessary, or from requiring Respondents in the future to perform additional activities pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a), et seq., or any other applicable law. Respondents shall be liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), for the costs of any such additional actions.
91. Notwithstanding any provision of this Order, the United States hereby retains all of its information gathering, inspection, and enforcement authorities and rights under CERCLA, RCRA, and any other applicable statutes or regulations.

92. Respondents shall be subject to civil penalties under Section 106(b) of CERCLA, 42 U.S.C. 9606(b), of not more than $32,500.00 for each day in which Respondents willfully violate, or fail or refuse to comply with this Order without sufficient cause. In addition, failure to properly provide response action under this Order, or any portion hereof, without sufficient cause, may result in liability under Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), for punitive damages in an amount at least equal to, and not more than, three (3) times the amount of any costs incurred by the Fund as a result of such failure to take proper action.

93. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any person for any liability it may have arising out of, or relating in any way to, the Site.

94. If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondents shall remain bound to comply with all provisions of this Order not invalidated by the court's order.

XXVII. ADMINISTRATIVE RECORD

95. Upon request by EPA, Respondents must submit to EPA all documents related to the selection of the response action for possible inclusion in the administrative record file.

XXVIII. EFFECTIVE DATE AND COMPUTATION OF TIME

96. This Order shall be effective ten (10) days after the Order is signed by the Director of the Office of Environmental Cleanup for EPA Region 10. All times for
performance of ordered activities shall be calculated from this effective date.

XXIX. OPPORTUNITY TO CONFER

97. Respondents may, within seven (7) days after the date this Order is signed, request a conference with EPA's Director of the Office of Environmental Cleanup for Region 10 to discuss this Order. If requested, the conference shall occur at the EPA Region 10 office located at 1200 Sixth Avenue, Seattle, Washington, 98101.

98. The purpose and scope of the conference shall be limited to issues involving the implementation of the response actions required by this Order and the extent to which Respondents intend to comply with this Order. This conference is not an evidentiary hearing, and does not constitute a proceeding to challenge this Order. It does not give Respondents a right to seek review of this Order, or to seek resolution of potential liability, and no official stenographic record of the conference will be made. At any conference held pursuant to Respondents’ request, Respondents may appear in person or by an attorney or other representative.

99. Requests for a conference must be by telephone followed by a written confirmation mailed that day to Chip Humphrey, Remedial Project Manager, 503-326-2678, U.S. Environmental Protection Agency, Oregon Operations Office, 811 SW 6th Avenue, 3rd Floor, Portland, Oregon 97204.

SO ORDERED, this _____ day of August, 2005.

By: _____________________________________
Daniel D. Opalksi, Director
Office of Environmental Cleanup
U.S. Environmental Protection Agency,
Region 10

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