



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

AK 1811
2/10/98
WU
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Reply To
Attn Of: WCM-126

February 10, 1998

John Hammelman
HES Program Administrator
Unocal Alaska Resources - Kenai Plant
P.O. BOX 575
Kenai, Alaska 99611

**RE: Administrative Order on Consent
Cook Inlet Pipe Line Company
RCRA Docket No. 10-97-0176-RCRA
EPA ID No. AKD 00064 1811**

FILE COPY

Dear Mr. Hammelman:

This letter is written to clarify our letter dated February 3, 1998, regarding the effective date of the Administrative Order on Consent (AOC) between Cook Inlet Pipe Line Company (CIPL) and the United States Environmental Protection Agency (EPA). The effective date of the AOC remains the date it was signed by EPA. However, EPA agrees to extend the time for the purpose of determining when the schedule should start to December 26, 1997, the date CIPL received notice that EPA signed the AOC. Therefore, all due dates listed in the Attachment D, *Schedule for Completion of RFI and CMS/CM/* to the AOC should be modified accordingly to reflect this change of date.

If you have questions regarding this correspondence, please call me at (206) 553-5122.

Sincerely,

Anna I. Filutowski
Project Manager

cc: Ron Yurkiewicz, CIPL-Anchorage, Alaska

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2
3 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
4 REGION 10

5 IN THE MATTER OF:)
6)
7 COOK INLET PIPE LINE COMPANY) ADMINISTRATIVE ORDER ON
8 DRIFT RIVER TERMINAL) CONSENT
9 Drift River, Alaska 99600)
10 (AKD# 00064 1811))
11 Respondent.) EPA DOCKET NO.: 10-97-0176-RCRA
12)
13 Proceeding under Section)
14 3008(h) of the Resource)
15 Conservation and Recovery)
16 Act, as amended, 42)
17 U.S.C. §6928(h).)

18 Administrative Order on Consent
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1 I. JURISDICTION

2 1. This Administrative Order on Consent ("Order") is issued
3 pursuant to the authority vested in the Administrator of the
4 United States Environmental Protection Agency (EPA) by Section
5 3008(h) of the Solid Waste Disposal Act, commonly referred to as
6 the Resource Conservation and Recovery Act of 1976 ("RCRA"), as
7 amended, 42 U.S.C. §6928(h). The authority vested in the
8 Administrator to issue orders under Section 3008(h) of RCRA has
9 been delegated to the Regional Administrators by EPA Delegation
10 Nos. 8-31 and 8-32 dated April 16, 1985 (as revised on March 6,
11 1986), and further delegated by the Regional Administrator for
12 Region 10 to the Director, Office of Waste and Chemical
13 Management.

14 2. This Order is issued to the Cook Inlet Pipe Line
15 Company ("Respondent"), the owner/operator of (the "Facility")
16 located at Drift River Terminal, Remote Rural Area, Kenai R16W
17 T6N, Drift River, Alaska. For the purpose of this Order,
18 Respondent consents to and agrees not to contest EPA's
19 jurisdiction to issue this Order or enforce its terms. Further,
20 Respondent will not contest EPA's jurisdiction to: compel
21 compliance with this Order in any subsequent enforcement
22 proceedings, either administrative or judicial; require
23 Respondent's full or interim compliance with the terms of this
24 Order; or impose sanctions for violations of this Order.

1 II. DEFINITIONS

2 3. Unless otherwise expressly provided herein, terms used
3 in this Order which are defined in RCRA or in regulations
4 promulgated under RCRA, or in Section 101 of the Comprehensive
5 Environmental Response, Compensation and Liability Act
6 ("CERCLA"), as amended, 42 U.S.C. § 9601, shall have the meaning
7 assigned to them under RCRA, regulations promulgated thereunder,
8 or CERCLA, to the extent that a RCRA and a CERCLA definition are
9 inconsistent, the RCRA definition shall control. Whenever the
10 following terms are used in this Order, the definitions specified
11 hereinafter shall apply:

12 (a) Acceptable to EPA shall mean submittals or completed
13 work in compliance with this Order, and EPA guidance documents,
14 policies and procedures.

15 (b) Additional work shall mean any activity or requirement
16 not expressly covered by this Order but determined by EPA to be
17 necessary to implement this Order.

18 (c) Administrative Record shall mean the record compiled and
19 maintained by EPA relative to this Order. For information on the
20 contents of the Administrative Record see "Guidance on
21 Administrative Records for RCRA 3008(h) Actions", OSWER Directive
22 9940.4, July 6, 1989.

23 (d) Area of Concern shall mean any area of the Facility
24 where a release to the environment of hazardous waste or
25 hazardous constituents has occurred, is suspected to have
26 occurred, or may occur.

1 the end of the next day which is not a Saturday, Sunday, or
2 Federal Holiday.

3 (k) Facility shall mean all contiguous land, and structures,
4 other appurtenances, and improvements on the land, used for
5 treating, storing, or disposing of hazardous waste. A facility
6 may consist of several treatment, storage, or disposal
7 operational units (e.g., one or more landfills, surface
8 impoundments, or combinations of them). For purposes of
9 implementing corrective action under 40 C.F.R. § 264.101, all
10 contiguous property under the control of the owner or operator
11 seeking a permit under subtitle C of RCRA. This definition also
12 applies to facilities implementing corrective action under RCRA
13 Section 3008(h).

14 (l) Hazardous Constituents shall mean those constituents
15 listed in Appendix VIII to 40 C.F.R. Part 261.

16 (m) Interim measures ("IM") shall mean action initiated in
17 advance of implementation of final corrective measures to
18 stabilize or otherwise control or eliminate the release or
19 potential release of hazardous waste or hazardous constituents
20 or from the Facility.

21 (n) Off-site, when used in relation to the Facility or
22 site, shall mean all areas which are not on-site.

23 (o) On-site shall mean the same or geographically
24 contiguous property within the Facility which may be divided by
25 public or private right-of-way. Non-contiguous properties owned
26 by the same person but connected by a right-of-way which he

1 controls and to which the public does not have access is also
2 considered on-site property.

3 (p) Order shall mean the text of this Order and all
4 Attachments to this Order, all submittals required by this Order
5 after they are approved in writing by EPA (except monthly
6 progress reports and Health and Safety Plans) all modifications
7 to any of the foregoing, all of which are incorporated into this
8 Order by this reference and are enforceable parts of this Order
9 as if set out at length in this Order.

10 (q) Receptors shall mean those humans, animals, or plants
11 and their habitats which are or may receive or be affected by
12 releases of hazardous waste or hazardous constituents at or from
13 the Facility.

14 (r) RCRA Facility Investigation ("RFI") shall mean the
15 investigation and characterization of the source(s), nature,
16 extent, direction, rate, movement, and concentration of the
17 hazardous waste and hazardous constituents that have been or are
18 likely to be released into the environment at or from the
19 Facility.

20 (s) Solid Waste Management Unit ("SWMU") shall mean any
21 discernible unit at which solid wastes have been placed at any
22 time. Such units include any area of or at the Facility where
23 solid waste has been routinely and/or systematically treated,
24 stored, disposed of, managed, or released.

25 (t) Stabilization shall mean the techniques intended to
26 control or abate threats to human health and/or the environment,

1 and to prevent or minimize the spread of contamination while
2 long-term corrective action alternatives are evaluated.

3 (u) Submittal shall include any workplan, report, progress
4 report, or any other written document Respondent is required
5 pursuant to this Order to submit to EPA.

6 (v) Work shall mean any activity Respondent must perform to
7 comply with Order.

8 III. STATEMENT OF PURPOSE

9 4. The objectives of this Order are to protect human health
10 and environment as follows:

11 (a) Respondent's implementation of corrective action at and
12 for the Facility in a manner acceptable to EPA, including all
13 investigatory and cleanup phases, to protect human health and the
14 environment.

15 (b) Respondent's implementation of interim measures
16 acceptable to EPA.

17 (c) Respondent's performance of a RCRA Facility
18 Investigation ("RFI") acceptable to EPA.

19 (d) Respondent's performance of a Corrective Measure Study
20 ("CMS") acceptable to EPA.

21 (e) Respondent's performance of any other activities
22 necessary to correct or evaluate actual or potential threats to
23 human health and/or the environment resulting from the release or
24 potential release of hazardous waste or hazardous constituents at
25 or from the Facility.

1 IV. PARTIES BOUND

2 5. This Order shall apply to and be binding upon EPA;
3 Respondent and its officers, directors, employees, agents,
4 successors and assigns, heirs, trustees, receivers; and upon all
5 persons, including but not limited to contractors and
6 consultants, acting on behalf of Respondent.

7 6. No change in ownership of the Facility or in
8 Respondent's form of business organization will in any way alter
9 Respondent's responsibilities under this Order. Respondent will
10 be responsible for any failure to carry out Work required by this
11 Order, notwithstanding Respondent's use of agents, contractors,
12 or consultants to perform any Work.

13 7. Respondent shall provide a copy of this Order to all
14 contractors, laboratories, and consultants retained to conduct or
15 monitor any portion of the Work within fourteen (14) days after
16 the issuance of this Order or the retention of such person(s),
17 whichever occurs later, and shall condition all such contracts on
18 compliance with this Order.

19 8. Respondent shall give written notice of this Order to
20 any successor in interest prior to transfer of ownership or
21 operation of the Facility, or a portion thereof, and shall notify
22 EPA within thirty (30) days prior to any such transfer.

23 9. Respondent agrees to perform all Work required by this
24 Order, including all portions of this Order incorporated by
25 reference. Respondent waives all rights to a hearing on the
26 issuance, validity, any claim of due process, or enforceability
27

1 of this Order, pursuant to Section 3008(b) of RCRA, 42 U.S.C. §
2 6928(b), 40 C.F.R. Part 24.

3 10. Where this Order creates duties upon Respondent, any
4 directory language, including the words "will," or "shall", when
5 used in reference to any action to be taken by EPA, is intended
6 only, and shall be interpreted, as condition(s) precedent to
7 Respondent's duty(s), and not as any duty of EPA to act, or to
8 act within a specified time period.

9 V. FINDINGS OF FACT

10 11. Respondent is a person doing business in the State of
11 Alaska.

12 12. Respondent is a generator of hazardous waste and an
13 owner and/or operator of a hazardous waste management facility
14 located at Drift River Terminal, Remote Rural Area, Kenai R16W
15 T6N, Drift River, Alaska. Respondent engaged in treatment of
16 hazardous waste at the facility subject to interim status
17 requirements [40 C.F.R. Part 265] in six surface impoundments of
18 Respondent's ballast water treatment system.

19 13. Respondent owned and/or operated the Facility as a
20 hazardous waste management facility on or after September 25,
21 1990, the applicable date which renders facilities that manage
22 Toxicity Characteristic (TC) wastes, subject to interim status
23 requirements or the requirement to have a permit under §§3004 and
24 3005 of RCRA.

25 14. Pursuant to §3010 of RCRA, Respondent notified EPA of
26 its hazardous waste activity. In its notification dated August
27

1 14, 1980, Respondent identified itself as a generator of
2 hazardous waste.

3 15. In its Part A permit application dated September 25,
4 1990, Respondent identified itself as handling and treating in
5 six interim status surface impoundments, the following hazardous
6 wastes at the Facility: D018(benzene).

7 16. The Drift River Terminal is located in a remote area of
8 Kenai Peninsula Borough, Alaska (see Figure 1) on the west side
9 of Cook Inlet across from the City of Kenai. The terminal is
10 approximately 90 miles southwest of Anchorage and is adjacent to
11 the Drift River. Crude oil is transported by pipeline from oil
12 fields on the Cook Inlet to Drift River Terminal. It is then
13 stored temporarily onsite in tanks and then loaded onto seagoing
14 tankers from the terminal's one berth where the crude oil is
15 transported to refineries for processing. Approximately 24 to 26
16 tankers visit the terminal per year. During the peak year of
17 1970, 224 vessels loaded up at the terminal. Drift River
18 Terminal, which has been in operation since 1967, is owned and
19 operated by Respondent. Drift River Terminal has been the only
20 occupant of the 898 acre site. In addition to the crude oil
21 collection and discharge facilities, Drift River Terminal also
22 operated, until February 27, 1992, six surface impoundments as
23 part of a ballast water treatment system (BWT) that recovered
24 crude oil residues from tanker ballast water. Only those tankers
25 that did not have segregated holds discharged their ballast
26 water to Drift River Terminal for treatment. After it was pumped
27

1 from the tanker, the ballast water was discharged to the ballast
2 water holding tank. The separated oil was then skimmed from the
3 ballast water, placed in recovery tanks, and later returned to
4 the crude oil storage tanks for subsequent shipment. The water
5 phase was pumped from the holding tank to the dissolved air
6 floatation (DAF) units. Wastewater from the DAF was
7 periodically discharged to surface impoundments 1 through 6,
8 respectively. Impoundment 1 was constructed with a liner on both
9 its bottom and sides and was equipped with a skimmer to remove
10 any residual oil. From impoundment 1, the wastewater was then
11 discharged sequentially through the unlined impoundments 2
12 through 6 for treatment by natural biodegradation processes.
13 From impoundment 6, the wastewater was released to an unlined
14 ditch, eventually discharging to Redoubt Bay of Cook Inlet (ENSR
15 1992(a)). This discharge is regulated under a National Pollutant
16 Discharge and Elimination System (NPDES) Permit (Permit Number:
17 AK 0000396), effective October 30, 1987. The six impoundments
18 were clean closed in accordance with an approved closure plan
19 (approved on August 8, 1996). The ballast water which is treated
20 is a hazardous waste and is identified as D018 (benzene).

21 17. A RCRA Facility Assessment ("RFA") was completed for
22 the Facility on February 22, 1993. The RFA identified 23 Solid
23 Waste Management Units ("SWMUs") where solid or hazardous waste
24 has been managed at the Facility and 2 Areas of Concern ("AOCs").
25 EPA has determined that further investigation is required to
26
27

1 assess whether releases to soil or groundwater have occurred at
2 the following SWMUs which were identified in the RFA:

- 3 • SWMU 10 Discharge Ditch
- 4 • SWMU 11 Scraper Trap
- 5 • SWMU 19 Former Burn Pit

6 EPA has determined that no further investigation is
7 required under this order to assess whether releases to soil or
8 groundwater that have occurred at the following AOCs, which were
9 identified in the RFA, as they are or will be addressed by the
10 Alaska Department of Conservation's (ADEC) Contaminated Sites
11 Program:

- 12 • AOC 1 Tank 3 Spill Area
- 13 • AOC 2 Aviation Fuel Spill Area
- 14 • SWMUs 20 and 23 (for purposes of the investigation
15 these two SWMUs should be combined) Warehouse "C"
16 Area and Former dump Northeast of BWT enclosure
- 17 • SWMU 22 Former Dump Northwest of the crude oil
18 storage tanks

19 EPA has determined that no further investigation is required
20 under this order to assess whether releases to soil or
21 groundwater have occurred at the following SWMUs, which were
22 identified in the RFA, as these SWMUs have either been
23 misidentified in the RFA or no longer exist:

- 24 • SWMU 1 Ballast Water Holding Tank
- 25 • SWMUs 2 and 3 DAF Nos. 1 and 2
- 26 • SWMU 12 Drum in Welding Shop

- 1 ● SWMU 13 Small Oily Waste Receptacle
- 2
- 3 ● SWMUs 14 and 15 Used Oil Collectors No. 1 and No. 2
- 4 ● SWMU 16 Battery Collection Area
- 5 ● SWMU 17 Solid Waste Incinerator
- 6 ● SWMU 18 Bear Proof Trash Bin
- 7 ● SWMU 21 Contaminated Soil Storage Shed

8 The following SWMUs were identified in the RFA as requiring
9 investigation, and are interim status units which have undergone
10 closure:

- 11 ● SWMU 4 - Ballast Water Surface Impoundment No. 1
- 12 ● SWMU 5 - Ballast Water Surface Impoundment No. 2
- 13 ● SWMU 6 - Ballast Water Surface Impoundment No. 3
- 14 ● SWMU 7 - Ballast Water Surface Impoundment No. 4
- 15 ● SWMU 8 - Ballast Water Surface Impoundment No. 5
- 16 ● SWMU 9 - Ballast Water Surface Impoundment No. 6

17 EPA has determined that no further investigation is required
18 under this Order to document the releases to groundwater from the
19 above mentioned SWMUs as they have been clean closed.

20 18. Respondent has previously undertaken various
21 investigation activities at the Facility. The following
22 investigation reports were prepared by the Respondent and
23 submitted to the EPA:

- 24 ● Cook Inlet Pipe Line Company drift River Ballast Water
25 Treatment System, Final Report Chemical and Biological Data Base,
26 prepared by Davis L. Ford and Associates, August, 1987.

1 • Summary Report for NPDES Permit, prepared by Mobile for
2 Cook Inlet Pipe Line Company, January, 1989.

3 • ENSR, 1992. Closure Plan, Drift River Terminal, Cook
4 Inlet, Alaska. Prepared by ENSR Consulting and Engineering for
5 Cook Inlet Pipe Line Company, Dallas, Texas. Document Number
6 1914-05-680. September 1992.

7 • ENSR, 1992. Annual Groundwater Monitoring Report,
8 Drift River Terminal, Cook Inlet, Alaska. Prepared by ENSR
9 Consulting and Engineering for Cook Inlet Pipe Line Company,
10 Dallas, Texas. Document Number 1914-005. October 1992.

11 • ENSR, 1992. Waste Characterization of Surface
12 Impoundments, Drift River Terminal, Cook Inlet, Alaska. Prepared
13 by ENSR Consulting and Engineering for Cook Inlet Pipe Line
14 Company, Dallas, Texas. Document Number 1914-005-675. November
15 1992.

16 • ENSR, 1993. Semiannual Groundwater Monitoring,
17 November 1992, Drift River Terminal, Cook Inlet, Alaska.
18 Prepared by ENSR Consulting and Engineering for Cook Inlet Pipe
19 Line Company, Anchorage, Alaska.

20 • Dames and Moore, 1966. Soils Investigation Proposed
21 Marine Terminal Tank Farm Facilities, West Cook Inlet, Alaska,
22 for the Cook Inlet Pipe Line Company, Job No. 5387-002-03.

23 • ENSR, 1991. Remedial Action Plan, Aviation Fuel Spill,
24 Drift River Terminal, Cook Inlet, Alaska. Prepared by ENSR
25 Consulting and Engineering to Cook Inlet Pipe Line Company.
26 November 1991.

1 ● ENSR, 1991. Remedial Action Plan, Crude Oil Spill,
2 Drift River Terminal, Cook Inlet, Alaska. Prepared by ENSR
3 Consulting and Engineering to Cook Inlet Pipe Line Company.
4 September 1991.

5 ● ENSR, 1994. Project Status Report, Aviation Fuel Spill
6 Remediation Site, July and August 1994, Drift River Terminal,
7 Cook Inlet, Alaska. Prepared by ENSR Consulting and Engineering
8 to Cook Inlet Pipe Line Company. Document Number 1914-004-350b.
9 December 1994.

10 ● ENSR, 1994. Project Status Report, Tank 3 Crude Oil
11 Spill Remediation Site, July and August 1994, Drift River
12 Terminal, Cook Inlet, Alaska. Prepared by ENSR Consulting and
13 Engineering to Cook Inlet Pipe Line Company. Document Number
14 1914-004-350c. December 1994.

15 ● ENSR, 1994. Closure and Post Closure Care Plan.
16 Prepared by ENSR Consulting and Engineering to Cook Inlet Pipe
17 Line Company. Document Number 1914-005-680. November 1993.

18 ● ENSR, 1995. Ballast Water Surface Impoundment Closure
19 Report. Prepared by ENSR Consulting and Engineering to Cook
20 Inlet Pipe Line Company. Document Number 1914-005-730. January
21 1995.

22 ● ENSR, 1994. Ballast Water Surface Impoundments.. Semi-
23 Annual Groundwater Monitoring Report for November 1994.

24 ● ENSR, 1995. Ballast Water Surface Impoundments. Semi-
25 Annual Groundwater Monitoring Report for May 1995.

1 ● ENSR, 1995. Ballast Water Surface Impoundments. Semi-
2 Annual Groundwater Monitoring Report for November 1995.

3 ● ENSR, 1996. Annual Groundwater Monitoring Report 1995,
4 and Evaluation of Groundwater Surface Elevations for the Ballast
5 Water Surface Impoundment Site 1995.

6 ● ENSR, 1995. Supplemental Information to the Final
7 Groundwater Quality Report. Document Number 1914-005-790.
8 August 1995.

9 19. On June 17 and 18, 1993 PRC Environmental Management,
10 Inc. (PRC), representing EPA, performed a comprehensive
11 groundwater monitoring evaluation (CME) in the area of the
12 surface impoundments. The CME Final Report was dated November
13 23, 1993. This document summarizes the results of chemical
14 analysis of soil and groundwater which indicate that various
15 releases of hazardous constituents have occurred at or from the
16 Facility, leading to soil and groundwater contamination. The
17 surface impoundments were clean closed in accordance with an
18 approved Closure Plan (approved August 8, 1996), and require no
19 further investigation. However, soil and groundwater
20 contamination has occurred downgradient of the impoundments in
21 the adjacent discharge ditch. A monitoring program was conducted
22 in the area of the discharge ditch in 1988 to meet a requirement
23 of CIPL's NPDES permit. These data are summarized below:

24 (a) Groundwater samples were collected in January, March,
25 June, and September 1988 from monitoring wells located in the
26
27

1 vicinity of the discharge ditch (SWMU 10). The groundwater
2 samples were analyzed for total hydrocarbons by EPA Method 503E
3 and total benzene, toluene, ethylbenzene, and total xylenes by
4 EPA Method 602. Analytical results from monitoring wells
5 detected total hydrocarbons concentrations ranging from 0.11
6 milligrams per liter (mg/L) to 0.17 mg/L. Total BTEX
7 concentrations were detected at 4 micrograms per liter ($\mu\text{g/L}$) to
8 25 $\mu\text{g/L}$ in samples collected from these wells. From June to
9 September 1988, the Facility collected wastewater samples from
10 the first impoundment and analyzed them for volatile organic
11 compounds (VOCs). Benzene was detected at concentrations up to
12 2,550 micrograms per liter.

13 (b) Samples of waste residues (sediments) and wastewater in
14 and around the surface impoundments were collected and analyzed
15 by the facility in May 1992. According to the facility waste
16 characterization report, waste residue composite screening
17 samples collected from impoundments 3, 5, and 6, and analyzed by
18 SW 846 methods 8100 and 8240, contained detectable concentrations
19 of one polynuclear aromatic hydrocarbon (PAH) (naphthalene - 0.6
20 mg/kg) and two VOCs (acetone - 410 mg/kg and methyl ethyl ketone
21 - 110 mg/kg), respectively. Waste residue grab samples collected
22 from north and south locations within impoundment 1 contained
23 elevated concentrations of diesel range organic compounds (DRO -
24 4,100 mg/kg and 5,400 mg/kg) (C_9 to C_{20}) (SW 846 method 8100);
25 VOCs including benzene - 1,000 $\mu\text{g/kg}$, toluene - 31 $\mu\text{g/kg}$,
26 ethylbenzene - 14 $\mu\text{g/kg}$, and total xylenes - 100 $\mu\text{g/kg}$ (SW 846
27

1 method 8240); and inorganic compounds including arsenic - 3.0
2 mg/kg, barium - 83.5 mg/kg, chromium - 6.5 mg/kg, and lead - 9.4
3 mg/kg.

4 (c) In August 1992, samples of soils adjacent to the
5 impoundment and subsoils beneath the impoundments were collected
6 to estimate the vertical and lateral extent of waste constituents
7 associated with the impoundments. Analytical results for soil
8 and subsoil samples show detectable concentrations of benzene,
9 DRO, and metals (arsenic, barium, chromium, lead, and mercury).
10 Maximum concentrations of these compounds in soil samples include
11 the following:

- 12 ● DRO (3,120 mg/kg - west of impoundment 5)
- 13 ● Arsenic (3.6 mg/kg - between impoundments 3 and 4)
- 14 ● Barium (50.3 mg/kg - south of impoundment 5)
- 15 ● Chromium (16.5 mg/kg - south of impoundment 5)
- 16 ● Lead (3.5 mg/kg - northeast corner of impoundment
17 5)
- 18 ● Mercury (0.09 mg/kg) south of impoundment 5)

19 Maximum concentrations of these compounds in
20 subsoil samples include the following:

- 21 ● DRO (8,690 mg/kg - 2.5 feet deep, impoundment 5)
- 22 ● Benzene (350 ug/kg - 3.0 feet deep, impoundment 4)
- 23 ● Arsenic (6.2 mg/kg - 4.5 feet deep, impoundment 4)
- 24 ● Barium (68.6 mg/kg - 4.5 feet deep, impoundment 3)
- 25 ● Chromium (5.6 mg/kg - 3.5 feet deep, impoundment
26 2)

- 1 ● Lead (6.5 mg/kg - 4.4 feet deep, impoundment 6)
- 2 ● Mercury (0.09 mg/kg - 4.5 feet deep, impoundment
- 3 4)

4 (d) Seven groundwater monitoring wells were installed at
5 the surface impoundments in September 1991. The wells were
6 sampled quarterly for the first year; samples were analyzed for
7 those parameters specified in 40 C.F.R. 265.92(b). Analytical
8 results indicate detectable concentrations of inorganic
9 compounds, total phenols, radionuclides, total organic carbon
10 (TOC), and total organic halogen (TOX). In addition,
11 concentrations of the following several parameters exceed the EPA
12 interim primary drinking water standards (40 C.F.R. 265, Appendix
13 III):

- 14 ● Arsenic (up to 60.2 ug/L)
- 15 ● Barium (up to 1,080 ug/L)
- 16 ● Chromium (up to 198 ug/L)
- 17 ● Lead (up to 82.1 ug/L)
- 18 ● Radium (up to 11 pCi/L)
- 19 ● Gross alpha (up to 280 pCi/L)

20 Concentrations of the following several parameters exceed
21 the EPA secondary maximum contaminant levels:

- 22 ● Chloride (up to 1,860 mg/L)
- 23 ● Iron (up to 188 mg/L)
- 24 ● Manganese (up to 2.67 mg/L)

1 On November 16, 1992, the wells were resampled and analyzed
2 by SW 846 method 8230. Benzene was detected at concentrations up
3 to 150 ug/L.

4 Groundwater samples were collected from the seven wells
5 during the CME inspection. Results show fifteen VOCs and seven
6 semi-volatile organic compounds (SVOCs) at detectable
7 concentrations in wells downgradient of the impoundments.

- 8 ● Acetone (3J ug/L)
- 9 ● Benzene (310 ug/L)
- 10 ● 2-Butanone (1J ug/L)
- 11 ● Carbon disulfide (0.2J ug/L)
- 12 ● Chloromethane (0.06J ug/L)
- 13 ● 1,4-Dichlorobenzene (0.08J ug/L)
- 14 ● 1,1-Dichloroethane (0.3J ug/L)
- 15 ● 1,2-Dichloroethane (3.0J ug/L)
- 16 ● Ethylbenzene (0.4J ug/L)
- 17 ● 1,2,4-Trimethylbenzene (2 ug/L)
- 18 ● Isopropylbenzene (2 ug/L)
- 19 ● p-Isopropyltoluene (0.3J ug/L)
- 20 ● Propylbenzene (0.9J ug/L)
- 21 ● Sec-Butylbenzene (1 ug/L)
- 22 ● Total xylenes (0.16J ug/L)
- 23 ● Acenaphthene (0.1J ug/L)
- 24 ● Fluorine (0.4J ug/L)
- 25 ● 1-Methyl naphthalene (4 ug/L)
- 26 ● 2-Methyl naphthalene (0.3J ug/L)

- 1 • Naphthalene (0.5J ug/L)
- 2 • Phenanthrene (0.3J ug/L)
- 3 • Phenol (3 ug/L)

4 Six total and dissolved metals were detected of which only
5 selenium exceeds its maximum contaminant level (MCL) of 10 ug/L
6 (253J ug/L total).

7 20. The hazardous waste or hazardous constituents
8 identified in paragraph 19 above, may pose a threat to human
9 health or the environment. The following chemicals are known or
10 probable human carcinogens: benzene, 1,1-dichloroethane, 1,2-
11 dichloroethane, arsenic, chromium, lead, acenaphthene.

12 Groundwater beneath the facility is known to contain all of these
13 chemicals. The groundwater beneath the facility eventually
14 discharges into Redoubt Bay. Aquatic life living in these
15 surface waters may be harmed by exposure to these chemicals.

16 21. The Facility is located on a coastal plain area
17 adjacent to Redoubt Bay at an elevation of between 25 and 50 feet
18 above mean sea level. The Facility is located immediately south-
19 southwest of Drift River; the perimeter road around the tank farm
20 passes within 250 feet of the river. Anadromous fish that
21 utilize Drift River include Coho salmon. Rust Slough and Cannery
22 Creek, which are located immediately west of the facility, have
23 records of Sockeye, Coho Pink, and Dolly Varden.

24 22. Groundwater is encountered at depths of five to ten
25 feet below surface, in an unconfined condition at the Facility.
26 The surface impoundments contained water which was derived from
27

1 ground water seepage. The unconfined groundwater flows to the
2 south-southeast towards Redoubt Bay. Data collected by
3 Respondent, indicate that the shallow aquifer found just below
4 the ground surface, may be in hydraulic communication with the
5 deeper aquifer from which the on-site drinking water is drawn.
6 There is an onsite well which facility representatives estimate
7 to be placed at 48 feet deep. This well formerly was used to
8 provide potable water for the site and is located approximately
9 52 feet east of the northwest corner of the industrial building.
10 It is currently being used for non potable purposes. Another
11 well, located approximately 300 feet west of the northwest corner
12 of the industrial building was installed in June 1994. This well
13 was completed to a depth of 57 feet and provides potable water to
14 the Facility after substantial treatment by potassium
15 permanganate, green sand and carbon filtration, sodium
16 hypochlorite, and reverse osmosis. Both wells are located
17 upgradient from the impoundments. The well providing potable
18 water is 3235 ft upgradient from the surface impoundments.

19 23. Current information is conclusive in documenting that
20 hazardous constituents have migrated from the Facility into the
21 soil and groundwater and possibly the surface waters to which
22 they discharge. Groundwater contamination has been documented in
23 the area of the discharge ditch (SWMU 10). Subsurface soil and
24 groundwater contamination have also been documented in the area
25 of crude oil storage tank (AOC 1) as a result of the March 10,
26 1990, spill. Subsurface soil and groundwater contamination have
27

1 also been documented in the area of the fuel oil tank farm as a
2 result of the March 21, 1990, jet fuel spill (AOC 2). Potential
3 receptors of such releases include the aquatic flora and fauna of
4 the Drift River and Redoubt Bay and consumers of potentially
5 contaminated game species taken from in and around these water
6 ways. Since the Facility is located in such a remote area, the
7 general population is not a likely receptor, however, the
8 Facility's employees potentially are receptors.

9 VI. CONCLUSIONS OF LAW AND DETERMINATIONS

10 24. Respondent is a "person" within the meaning of Section
11 1004(15) of RCRA, 42 U.S.C. § 6903(15).

12 25. Respondent is the owner or operator of a facility, as
13 "facility" is defined in 40 C.F.R. § 260.10, that has operated,
14 or should have been operating under interim status subject to
15 Section 3005(e) of RCRA, 42 U.S.C. § 6925(e).

16 26. Certain waste and constituents thereof found at the
17 Facility are hazardous waste and/or hazardous constituents as
18 defined and set forth in Section 1004(5) of RCRA, 42 U.S.C.
19 § 6903(15), and Section 3001 of RCRA, 42 U.S.C. § 6921,
20 respectively, and 40 C.F.R. Part 261.

21 27. There has been a release of hazardous waste and/or
22 hazardous constituents into the environment from the Facility,
23 which may be continuing, as "release" is defined in Section 101
24 (22) of CERCLA, 42 U.S.C. §9601(22). Hazardous wastes and/or
25 constituents released from the Facility may have migrated on and
26 off-site to an unknown extent in both vertical and horizontal
27

1 directions: It is necessary to determine the three-dimensional
2 concentrations of these wastes and/or constituents at and beyond
3 the Facility, and to assess whether such concentrations present
4 unacceptable risks to human health or the environment.

5 28. The actions required by this Order are necessary to
6 protect human health and the environment.

7 VII. PROJECT COORDINATOR

8 29. Within fifteen (15) days after issuance of this Order,
9 Respondent shall designate a Project Coordinator and shall notify
10 EPA in writing of the Project Coordinator it has selected. EPA's
11 Project Coordinator shall be Anna Filutowski, U.S. Environmental
12 Protection Agency, 1200 Sixth Avenue, Seattle, Washington, 98101
13 unless Respondent is otherwise notified in writing by EPA. Each
14 Project Coordinator shall be responsible for overseeing the
15 implementation of this Order and for designating a person to act
16 in his/her absence. The EPA Project Coordinator will be EPA's
17 designated representative for the Facility. All communications
18 between Respondent and EPA shall be directed to and from the
19 Project Coordinators.

20 30. Respondent may change its Project Coordinator upon ten
21 (10) days written notice to EPA.

22 31. The absence of the EPA Project Coordinator from the
23 Facility shall not be cause for the stoppage of any Work.

24 VIII. WORK TO BE PERFORMED

25 32. All Work shall be performed in accordance with this
26 Order, RCRA and all regulations promulgated thereunder, and all
27

1 applicable EPA guidance documents. These guidance documents
2 include, but are not limited to, those listed in Attachment A to
3 this Order.

4 A. RELEASE ASSESSMENT (RA) AND INTERIM MEASURES (IM)

5 33. Within sixty (60) days of the effective date of this
6 Order, Respondent shall submit to EPA a Release Assessment that
7 shall include the following elements:

- 8 • Current Conditions Summary that characterizes, based on
9 available data, the current site conditions, including
10 information on site geology and geohydrology, nature
11 and extent of contamination, releases or threats of
12 releases that may endanger human health and/or the
13 environment, and a description and an assessment of any
14 interim measures that have already been taken.
- 15 • Evaluation of available data and assessment of the need
16 for interim measures. Interim measures shall be used
17 whenever possible to achieve the goal of stabilization
18 which is to control or abate immediate threats to human
19 health and/or the environment, and to prevent or
20 minimize the spread of contaminants while long-term
21 corrective measures alternatives are being evaluated.
22 If interim measures are required the assessment must
23 evaluate other Interim Measures alternatives that could
24 be implemented at the facility and identify any new
25 data needed for making decisions on stabilization. EPA

1 shall determine when this data or information shall be
2 collected.

3 34. EPA will review Respondent's RA and other information
4 available to EPA, and select, if any, appropriate interim
5 measures for implementation by Respondent. If deemed appropriate
6 by EPA, such selection may be deferred until additional data is
7 collected.

8 35. Within thirty (30) days of a determination by EPA that
9 interim measures are required, Respondent shall submit to EPA a
10 workplan for the implementation of interim measures ["IM
11 Workplan"]. The IM Workplan is subject to approval by EPA and
12 shall provide for the performance of all interim measures
13 necessary to achieve stabilization at the facility in accordance
14 with the Interim Measures Scope of Work appended as Attachment A

15 36. In the event Respondent identifies an immediate or
16 potential threat to human health or the environment, Respondent
17 shall notify the EPA Project Coordinator orally within forty-
18 eight (48) hours of discovery and notify EPA in writing within
19 five (5) days of such discovery summarizing the immediacy and
20 magnitude of the potential threat(s) to human health and/or the
21 environment. Within fifteen (15) days of notifying EPA,
22 Respondent shall submit to EPA an IM Workplan for approval. If
23 EPA determines that immediate action is required, the EPA Project
24 Coordinator may orally authorize Respondent to act prior to EPA's
25 receipt of the IM Workplan.

1 37. If EPA identifies an immediate or potential threat to
2 human health and/or the environment, EPA will notify Respondent
3 in writing. Within thirty (30) days of receiving EPA's written
4 notification, Respondent shall submit to EPA for approval an IM
5 Workplan that identifies interim measures which will mitigate the
6 threat. If EPA determines that immediate action is required, the
7 EPA Project Coordinator may orally require Respondent to act
8 prior to Respondent's receipt of EPA's written notification.

9 38. All IM Workplans shall ensure that the interim measures
10 are designed to mitigate immediate or potential threat(s) to
11 human health and/or the environment, and should be consistent
12 with the objectives of, and contribute to the performance of any
13 long-term remedy which may be required at the facility.

14 39. In accordance with Attachment A herein, the IM Workplan
15 shall where applicable include the following sections:

- 16 • Interim Measures Objectives
- 17 • Public Involvement Plan
- 18 • Data Collection Quality Assurance
- 19 • Data Management
- 20 • Design Plans and Specifications
- 21 • Operation and Maintenance
- 22 • Project Schedule
- 23 • Interim Measure Construction Quality Assurance
- 24 • Reporting Requirements.

25 40. Concurrent with the submission of an IM Workplan,
26 Respondent shall submit to EPA a Health and Safety Plan that
27

1 conforms with the requirements of 29 C.F.R. §1910.120, "OSHA
2 Hazardous Waste Operations Standards," and the EPA guidance
3 document, "Standard Operation Safety Guides" (OSWER, 1988).

4 B. RCRA FACILITY INVESTIGATION (RFI)

5 41. Within 120 days of the effective date of this Order,
6 Respondent shall submit to EPA a workplan for a RCRA Facility
7 Investigation ("RFI Workplan") and a Pre-Investigation Evaluation
8 of Corrective Measure Technologies Report. The RFI Workplan, and
9 the Pre-Investigation Evaluation of Corrective Measure
10 Technologies Report are subject to approval by EPA and shall be
11 developed in a manner consistent with the RFI Scope of Work
12 contained in Attachment A.

13 42. The RFI Workplan shall detail the methodology
14 Respondent shall use to: (1) gather data needed to make
15 decisions on stabilization during the early phase of the RFI; (2)
16 evaluate the possibility of releases at the SWMU's named in
17 Section V. above; (3) identify and characterize all sources of
18 contamination with regard to each SWMU; (4) define the degree and
19 extent of contamination; (5) characterize the potential pathways
20 of contaminant migration; (6) identify actual or potential human
21 and/or ecological receptors; and (7) support the development of
22 alternatives from which a corrective measure will be selected by
23 EPA. A specific schedule for implementation of all activities
24 shall be included in the RFI Workplan.

*Need
Risk
Assessment*

1 43. In accordance with the provisions of Attachment A
2 herein, the RFI Workplan shall where applicable include the
3 following sections:

- 4 • Project Management
- 5 • Investigations to be Conducted and Rationale
- 6 • Data Collection Quality Assurance
- 7 • Data Management
- 8 • Public Involvement Plan

9 44. Concurrent with the submission of an RFI Workplan,
10 Respondent shall submit to EPA a Health and Safety Plan that
11 conforms with the requirements of 29 C.F.R. §1910.120, "OSHA
12 Hazardous Waste Operations Standards," and the EPA guidance
13 document, "Standard Operation Safety Guides" (OSWER, 1988). If
14 workplans for both an IM and RFI are required by this Order,
15 Respondent may submit a single Health and Safety Plan that
16 addresses the combined IM and RFI activities.

17 45. Respondent shall submit a RFI report to EPA for
18 approval in accordance with the EPA approved RFI Workplan
19 schedule. EPA will review the RFI report and notify Respondent
20 in writing of EPA's approval/disapproval, or modification in
21 accordance with Section X: Agency Approvals/Submittals/Proposed
22 Contractor/Additional Work.

23 C. CORRECTIVE MEASURES STUDY (CMS)

24 46. Within thirty (30) days of EPA's approval of the final
25 RFI Report, Respondent shall submit a CMS Workplan to EPA. The
26 CMS Workplan is subject to approval by EPA and shall be developed
27

1 in a manner consistent with the CMS Scope of Work contained in
2 Attachment A to this Order.

3 47. The CMS Workplan shall provide, at a minimum, the
4 following information:

- 5 • A description of the general approach to the CMS and
6 potential remedies;
- 7 • A statement of the overall objectives of the study;
- 8 • The specific plans for evaluating remedies to ensure
9 compliance with Media Cleanup Standards (MCSS) at the
10 points of compliance;
- 11 • The proposed format for the presentation of
12 information; and
- 13 • A justification for each corrective measure that
14 Respondent proposes to study to achieve the MCSSs.

15 48. Respondent shall prepare treatability studies for all
16 potential corrective measures that involve treatment except where
17 Respondent can demonstrate to EPA's satisfaction that they are
18 not needed. The CMS Workplan shall include, at a minimum, a
19 summary of the proposed treatability study and conceptual design,
20 and a schedule for submitting the treatability study workplan or
21 Respondent's justification for not proposing a treatability
22 study.

23 49. The CMS shall detail the methodology for developing and
24 evaluating potential corrective measures to remedy any
25 unacceptable contamination at the facility. The CMS shall
26 identify the potential corrective measures, including any
27

1 innovative technologies, that may be used for the containment,
2 treatment, and/or disposal of contamination.

3 50. Respondent shall submit a CMS Report to EPA for
4 approval in accordance with the EPA approved CMS Workplan
5 schedule. EPA will review the CMS Report and notify Respondent
6 in writing of EPA's approval/disapproval, or modification in
7 accordance with Section X: Agency Approvals/Submittals/Proposed
8 Contractor/Additional Work.

9 51. In accordance with Section IX: EPA will provide the
10 public with an opportunity to submit written and/or oral comments
11 and an opportunity for a public meeting regarding EPA's proposed
12 cleanup standards and remedy for the facility.

13 D. CORRECTIVE MEASURES IMPLEMENTATION (CMI)

14 52. Within forty five (45) days of Respondent's receipt of
15 notification of EPA's selection of the corrective measures,
16 Respondent shall submit to EPA a Corrective Measures
17 Implementation Workplan ["CMI Workplan"]. The CMI Workplan is
18 subject to approval by EPA and shall be developed in a manner
19 consistent with the CMI Scope of Work incorporated herein and
20 contained in Attachment A.

21 53. The CMI Workplan shall be designed to facilitate the
22 design, construction, operation, maintenance, and monitoring of
23 corrective measures at the facility. In accordance with
24 Attachment A, the CMI Workplan shall where applicable include the
25 following sections:

- 26 ● Program Management

- 1 ● Public Involvement Plan
- 2 ● Design Plans and Specifications
- 3 ● Operation and Maintenance
- 4 ● Cost Estimate
- 5 ● Project Schedule
- 6 ● Construction Quality Assurance
- 7 ● Data Collection Quality Assurance
- 8 ● Data Management.

9 54. Concurrent with the submission of a CMI Workplan,
10 Respondent shall submit to EPA a CMI Health and Safety Plan that
11 conforms with the requirements of 29 C.F.R. §1910.120, "OSHA
12 Hazardous Waste Operations Standards," and the EPA guidance
13 document, "Standard Operation Safety Guides" (OSWER, 1988).

14 55. EPA will review the CMI Workplan and notify Respondent
15 in writing of EPA's approval/disapproval, or modification in
16 accordance with Section X: Agency Approvals/Submittals/Proposed
17 Contractor/Additional Work.

18 56. Respondent shall submit a CMI report to EPA in
19 accordance with the EPA approved CMI workplan schedule. EPA will
20 review the CMI report and notify Respondent of EPA's approval,
21 disapproval or modification in accordance with Section X: Agency
22 Approvals/Submittals/Proposed Contractor/Additional Work.

23 IX. COMMUNITY RELATIONS

24 57. Community relations regarding implementation of this
25 Order are the primary responsibility of EPA. Respondent shall
26 cooperate and provide assistance to EPA upon request for its
27

1 community relations activities. Nothing herein shall restrict
2 Respondent's right to communicate with the public or any person
3 or group regarding the Order or the facility.

4
5 X. AGENCY APPROVALS/SUBMITTALS/PROPOSED CONTRACTOR/
6 ADDITIONAL WORK

7 EPA APPROVALS

8 58. With the exception of quarterly progress reports and
9 health and safety plans, EPA will review all Submittals required
10 by this Order, and will provide written approval, or disapproval
11 with comments and/or modifications to be made by Respondent. EPA
12 may also modify any Submittal and approve it as modified. If EPA
13 provides comments or proposes modifications to Respondent on any
14 Submittal, all EPA comments or proposed modifications must be
15 incorporated into a revised Submittal for EPA within thirty (30)
16 days of receipt of the comments or proposed modifications. No
17 Submittal shall be final until it is approved by EPA in writing.

18 59. Following approval of any Submittal, Respondent shall
19 commence all Work required thereby in accordance with the
20 schedule contained in the approved submittal, unless a shorter or
21 longer time is specified by EPA. All Work must be performed in
22 accordance with the standards, specifications and schedules in
23 the approved Submittal, and any applicable, previously approved
24 Submittals.

25 60. If, following submission of an initial draft Submittal,
26 Respondent disagrees or has questions concerning EPA's comments
27 and/or required modifications, Respondent must, within ten (10)

1 days after receipt of EPA's comments or required modifications,
2 request a meeting or telephone conference in writing to resolve
3 the matter. Such written request will establish a thirty (30)
4 day informal resolution period, and shall include a statement of
5 the issues Respondent wishes to address. The thirty (30) day
6 informal resolution period shall extend the due date for
7 resubmittal by as many days as it may last, to a maximum of
8 thirty (30) days. This informal resolution period applies only
9 to initial draft Submittals, unless EPA agrees to such a period
10 for a resubmittal. Respondent may request an extension to the
11 thirty (30) day informal resolution period which may be granted
12 at EPA's discretion.

13 61. If agreement is reached within the informal resolution
14 period, Respondent shall incorporate into a revised Submittal the
15 agreed-upon comments and/or modifications within fifteen (15)
16 days after reaching agreement, unless a shorter or longer time is
17 specified by EPA. If agreement is not reached within the
18 informal resolution period, Respondent shall either incorporate
19 all EPA comments or required modifications, or invoke the dispute
20 resolution procedures in Section XVII of this Order for all
21 comments or required modifications Respondent is unwilling to
22 make.

23 (62.) Verbal approval, advice, suggestions, or comments by
24 EPA personnel or representatives do not constitute approval under
25 any circumstances.

26
27

1 environmental scientist, with expertise in hazardous waste
2 cleanup. Respondent's contractor or consultant shall have the
3 technical expertise sufficient to adequately perform all aspects
4 of the Work he/she shall perform. Within fourteen (14) days
5 after issuance of this Order, Respondent shall notify EPA in
6 writing of the name, title, and qualifications of the engineer,
7 hydrologist, geologist, or environmental scientist and of any
8 contractors or consultants, then retained, to be used in
9 performing Work. EPA may disapprove any contractor and/or
10 consultant. If EPA disapproves a contractor or consultant,
11 Respondent shall, within fifteen (15) days after receipt of EPA
12 disapproval, notify EPA, in writing, of the name, title, and
13 qualifications of a replacement. EPA disapproval shall not be
14 subject to review under Section XVII: Dispute Resolution, below.

15 ADDITIONAL WORK

16 68. EPA may determine or Respondent may propose that
17 additional Work is or may be necessary to implement this Order.
18 EPA will specify in writing the basis for its determination that
19 the additional work is necessary. Within ten (10) days after the
20 receipt of such determination, Respondent may request a meeting
21 with EPA to discuss the proposed additional Work or invoke
22 dispute resolution procedures set forth in Section XVII, below.
23 If required by EPA, Respondent shall submit for EPA review a
24 Workplan for the additional Work in accordance with this Section.
25 Such Workplan shall be submitted within thirty (30) days after
26 receipt of EPA's request therefor, unless a shorter or longer

1 time is specified. Upon approval of an additional Workplan,
2 Respondent shall implement it in accordance with the schedule and
3 provisions contained therein.

4 XI. QUALITY ASSURANCE

5 69. All sample collection and analysis activities pursuant
6 to this Order, shall be pursuant to EPA-approved quality
7 assurance, quality control, and chain-of-custody procedures.

8 Specific EPA guidance documents to be followed include: the EPA
9 publication Test Methods for Evaluating Solid Waste ("SW-846")

10 (Third Edition, November 1986, or as updated), and the EPA

11 document entitled Interim Guidelines and Specifications for

12 Preparing Quality Assurance Project Plans, U.S. EPA QAMS-005/80.

13 Standard EPA Chain of Custody procedures are set forth in the

14 National Enforcement Investigations Center Policies and

15 Procedures Manual, November, 1984, and the National Enforcement

16 Investigations Center Manual for the Evidence Audit, September

17 1981.

18 70. In addition, Respondent shall:

19 (a) Develop and submit Quality Assurance Project Plans
20 ("QAPPs") to EPA covering each environmental sampling event, in
21 accordance with the schedule and requirements delineated in
22 Attachment B. QAPPs shall cover sampling plans and rationale,
23 sample analyses, and field measurements.

24 (b) Comply with all sampling, analysis and field
25 measurement quality assurance requirements delineated in
26 Attachment B.

1 (c) Submit data packages to EPA in the quarterly progress
2 report following completion of data validation after each
3 sampling event, within the schedules and containing the
4 documentation and information delineated in Attachments B and C
5 to this Order.

6 71. Respondent will be held accountable by EPA for
7 ensuring and monitoring the quality of data obtained by any
8 laboratory which it utilizes for analyses of samples performed.
9 EPA reserves the right to reject any data not generated in
10 accordance with the requirements specified in Attachment C.

11 XII. SAMPLING AND DATA/DOCUMENT AVAILABILITY

12 72. Respondent shall submit to EPA the results of all
13 sampling and/or tests or other data generated and/or prepared by
14 Respondent pursuant to this Order, in compliance with the
15 requirements set forth in Section XI, above, and Attachments B
16 and C, or in approved Submittal(s). If submission schedules in
17 EPA-approved Workplans differ from those in any section of or
18 attachment to this Order, the approved Workplan schedule will be
19 followed.

20 73. Respondent shall notify EPA in writing at least seven
21 (7) days before engaging in any field activities, such as well
22 drilling, installation of equipment, or sampling. If Respondent
23 believes it must commence emergency field activities without
24 delay, Respondent may seek emergency telephone authorization from
25 the EPA Project Coordinator or, if the EPA Project Coordinator is
26 unavailable, his/her supervisors, to commence such activities

1 immediately. Any such emergency approval must be
2 contemporaneously documented in writing forwarded by overnight
3 mail to EPA. EPA or its authorized representatives may take
4 split or duplicate samples of all samples collected by Respondent
5 pursuant to this Order. Similarly, at the request of Respondent,
6 EPA shall allow Respondent or its authorized representative(s) to
7 take split or duplicate samples of all samples collected by EPA
8 at the Facility.

9 74. Respondent may assert a business confidentiality claim
10 covering all or part of any information submitted to EPA pursuant
11 to this Order. Any assertion of confidentiality must be
12 accompanied by information that satisfies 40 C.F.R. §2.204(e)(4)
13 or such claim shall be deemed waived. Information determined by
14 EPA to be confidential shall be disclosed only to the extent
15 permitted by 40 C.F.R. Part 2. If no such confidentiality claim
16 accompanies the information when it is submitted to EPA, the
17 information may be made available to the public by EPA without
18 further notice to Respondent. Respondent agrees not to assert
19 any confidentiality claim with regard to any physical or
20 analytical data.

21 XIII. ACCESS

22 75. EPA, its contractors, employees, and/or EPA
23 representatives are authorized to enter at reasonable times and
24 freely move about the facility pursuant to this Order for the
25 purposes of, inter alia: interviewing facility personnel and
26 contractors; inspecting records, operating logs, and contracts
27

1 related to the facility; reviewing the progress of Respondent in
2 carrying out the terms of this Order, conducting such tests,
3 sampling, or monitoring as EPA deems necessary; using a camera,
4 sound recording, or other documentary type equipment; and
5 verifying the reports and data submitted to EPA by Respondent.
6 The Respondent agrees to provide EPA and its representatives
7 access at all reasonable times to the facility and subject to
8 paragraph 77 below, to any other property to which access is
9 required for implementation of this Order. Respondent shall
10 permit such persons to inspect and copy all records, files,
11 photographs, documents, including all sampling and monitoring
12 data, that pertain to work undertaken pursuant to this Order and
13 that are within the possession or under the control of Respondent
14 or its contractors or consultants.

15 76. Respondent reserves, and nothing herein shall be deemed
16 to waive any and all rights that Respondent may have (a) to
17 accompany EPA's inspectors at all times, including interviews of
18 employees or contractors, (b) to communicate with and direct the
19 work of its employees and contractors, (c) to obtain copies of
20 all photographs or video or sound recordings, and test results
21 and supporting documentation obtained by EPA, and split samples
22 of all materials collected by EPA.

23 77. To the extent that work being performed pursuant to this
24 Order must be done beyond the facility property boundary,
25 Respondent shall use its best efforts to obtain access agreements
26 necessary to complete work required by this Order from the
27

1 present owner(s) of such property within (30) days of approval of
2 any [work Plan] for which access is required. Best efforts as
3 used in this paragraph shall include, at a minimum, a certified
4 letter from Respondent to the present owner(s) of property
5 requesting access agreement(s) to permit Respondent, EPA, and its
6 authorized representatives to access such property, and the offer
7 of the payment of reasonable sums of money in consideration of
8 granting access. Any such access agreement shall provide for
9 access by EPA and its representatives. Respondent shall provide
10 EPA's Project Coordinator with a copy of any access agreement(s).
11 In the event that agreements of access are not obtained within
12 forty five (45) days of approval of any work plan for which
13 access is required, or of the date thereafter that the need for
14 access became known to Respondent, Respondent shall notify EPA,
15 in writing, within fourteen (14) days thereafter of both the
16 efforts undertaken to obtain access and the failure to obtain
17 such agreements. EPA may, at its discretion, assist Respondent
18 in obtaining access. In the event EPA obtains access, Respondent
19 shall undertake EPA-approved work on such property.

20 78. The Respondent agrees to indemnify the United States as
21 provided in Section XXIII: Indemnification, for any and all
22 claims arising from Respondent's activities on such property.

23 79. Nothing in this section limits or otherwise affects
24 EPA's right of access and entry pursuant to applicable law,
25 including RCRA and CERCLA.

26

27

1 XVI. DELAY IN PERFORMANCE/STIPULATED PENALTIES

2 86. Unless there is an excusable delay as defined in
3 Section XVIII: Force Majeure and Excusable Delay, or an
4 applicable written modification of a requirement by EPA, if
5 Respondent fails to comply with any requirement of this Order,
6 Respondent shall pay stipulated penalties as set forth.

7 (a) For failure to commence, perform, and/or complete the
8 field work identified in Attachment D, SCHEDULE FOR COMPLETION OF
9 RFI AND CMS/CMI in a manner Acceptable to EPA, or by the time
10 required by this Order: \$750.00 per day for each of the first
11 seven (7) days for each violation; \$1,500.00 per day for the
12 eighth (8th) through twenty-first (21st) day for each violation,
13 and \$3,000.00 per day for each day for each violation thereafter;

14 (b) For failure to complete and submit any workplans or
15 reports identified in Attachment D, SCHEDULE FOR COMPLETION OF
16 RFI AND CMS/CMI in a manner Acceptable to EPA or in the time
17 required by this Order: \$750.00 per day for each of the first
18 seven (7) days for each violation; \$1,500.00 per day for the
19 eighth (8th) through twenty-first (21st) day for each violation;
20 and \$3,000.00 per day for each day for each violation thereafter;

21 (c) For failure to complete and submit Progress Reports and
22 Health and Safety Plans in a manner Acceptable to EPA or at the
23 time required pursuant to this Order: \$250 per day for each of
24 the first seven (7) days for each violation; \$500.00 per day for
25 the eighth (8th) through twenty-first (21st) day for each
26
27

1 violation; and \$1,000.00 per day for each day for each violation
2 thereafter;

3 87. Penalties shall begin to accrue on the day after the
4 complete performance was due, or the day a violation occurs, and
5 shall continue to accrue through the day of correction of the
6 violation. Nothing herein shall prevent the simultaneous accrual
7 of separate stipulated penalties for separate violations of this
8 Order. Penalties shall continue to accrue regardless of whether
9 EPA has notified Respondent of a violation.

10 88. All penalties owed to the United States under this
11 Section shall be due and payable within thirty (30) days after
12 Respondent's receipt of a written demand for payment of the
13 penalties by EPA, unless Respondent invokes the dispute
14 resolution procedures in Section XVII, below. The written demand
15 will describe the violation and compute the penalty amount due.

16 89. Interest shall begin to accrue on any unpaid stipulated
17 penalty balance beginning on the thirty-first (31st) day after
18 Respondent's receipt of an EPA demand letter. Interest shall
19 accrue at the Current Value of Funds Rate established by the
20 Secretary of the Treasury. Pursuant to 31 U.S.C. Section 3717,
21 an additional penalty of six (6) percent per annum on any unpaid
22 principal shall be assessed for any stipulated penalty payment
23 which is overdue for ninety (90) or more days.

24 90. All penalties shall be made payable by certified or
25 cashier's check to the United States of America and shall be
26 remitted to:

1 U.S. Department of the Treasury
2 Attention: EPA Region 10, Office of the Comptroller
3 P.O. Box 360903M
4 Pittsburgh, PA 15251

5 All such checks shall reference the name of the Facility,
6 Respondent's name and address, and the EPA docket number of this
7 Order. Copies of all checks and accompanying transmittal letters
8 shall be sent simultaneously to the EPA Project Coordinator and
9 to the Regional Hearing Clerk, EPA Region X, M/S: ORC-158, 1200
10 Sixth Avenue, Seattle, WA 98101.

11 91. Respondent may dispute the assessment of stipulated
12 penalties by invoking the dispute resolution procedures in
13 Section XVII, below. Stipulated penalties shall continue to
14 accrue, but need not be paid, during the dispute resolution
15 process. Respondent shall pay stipulated penalties and interest,
16 if any, in accordance with the dispute resolution decision and/or
17 agreement. Respondent shall submit payment to EPA within thirty
18 (30) days after receipt of an adverse decision in dispute
19 resolution.

20 92. Neither the invocation of dispute resolution nor the
21 payment of penalties shall in any way alter Respondent's
22 obligation to comply with this Order.

23 93. The stipulated penalties set forth in this Section do
24 not preclude EPA from pursuing any other remedies or sanctions
25 which may be available to EPA by reason of Respondent's failure
26 to comply with this Order.

27 94. Payments made under this Section shall not be tax
28 deductible.

1 98. EPA and the Respondent shall have 14 days from EPA's
2 receipt of the Respondent's written objections to attempt to
3 resolve the dispute through formal negotiations. This 14 day
4 time period may be extended by EPA for good cause. During such
5 time period, (Negotiation Period) the Respondent may request a
6 conference with the Director of the Office of Waste and Chemicals
7 Management to discuss the dispute and the Respondent's
8 objections. EPA agrees to confer in person or by telephone to
9 resolve any such disagreement with the Respondent.

10 99. If the parties are unable to reach an agreement within
11 the Negotiation Period, EPA shall provide to Respondent its
12 written decision on the dispute (EPA Dispute Decision). Unless
13 the Respondent requests mediation of matters specified in
14 Paragraph 100 below (mediated matters) in writing within (7) days
15 of receipt of the EPA Dispute Decision, the decision of EPA shall
16 be incorporated into and become an enforceable element of this
17 Order within (7) days after Respondent's receipt of the EPA
18 Dispute Decision.

19 100. Upon the receipt by EPA of a request for mediation
20 pursuant to paragraph 99 above, the parties agree to follow the
21 procedures of paragraph 101 through 107 below. For purposes of
22 this section, mediated matters include: (1) the need for
23 additional work beyond that required in Section VIII. WORK TO BE
24 PERFORMED, of this order costing an additional \$100,000.00; (2)
25 approval of the final RFI, CMS, or CMI deliverables; or (3) the
26 existence of a force majeure event pursuant to Section XVIII of
27

1 this Order. Only mediated matters may be the subject of a
2 mediation process. The Respondent may invoke the mediation
3 process no more than three (3) times.

4 101. The parties agree that they will share equitably the
5 costs of mediation. However, EPA's ability to share equitably
6 such fees and expenses will be limited to the extent authorized
7 by the Agency' budget and other provisions of law such as the
8 miscellaneous receipts Act and Anti-Deficiency Act. The EPA
9 Project Coordinator shall notify the Respondent of EPA's ability
10 to share equitably the costs of mediation within 5 days of EPA's
11 receipt of Respondent's request for mediation pursuant to
12 paragraph 99 above. This time period may be extended by the EPA
13 Project coordinator if necessary to determine the availability of
14 EPA funds to share the costs of mediation. Upon written notice
15 by the EPA project coordinator to the Respondent that EPA cannot
16 equitably share the costs of mediation, the EPA Dispute Decision
17 shall be incorporated into and become an enforceable element of
18 this Order. EPA's ability to share the costs of mediation will
19 be determined by EPA in it sole discretion and shall not be
20 subject to dispute resolution of judicial review. If EPA
21 notifies the Respondent that it can equitably share the expenses
22 of mediation then the parties shall follow the procedure of
23 paragraph 102 through 107 below.

24 102. The parties agree to select mediator(s) in accordance
25 with the following procedures:

1 (a) Within Seven days of the Respondent's request for
2 mediation pursuant to paragraph 101 above, the parties shall
3 simultaneously provide each other with a letter (Mediator
4 Nomination Letter) which shall contain the names of 3 persons
5 nominated to serve as mediators for the Mediated matter in the
6 dispute.

7 (b) The mediators nominated by each Party must not have
8 any past, present or planned future business relationships with
9 the Parties, other than for mediation activities; and must agree
10 to the terms and conditions for mediation contained in this
11 Order. Any conflicts of interest or refusal to comply with
12 paragraphs 106 and 107 of this section shall automatically be
13 grounds for rejection of said nominee.

14 (c) Within 5 days of the receipt of the Mediation
15 Nomination letters, each party shall advise the other in writing
16 of acceptable nominees. All acceptable nominees, which are not
17 automatically rejected pursuant to subparagraph(b) above, shall
18 comprise the Mediator Nomination list. The parties shall select
19 a mediator from the mediator nomination List [nominees] and enter
20 a contract for mediation services with such mediator through
21 negotiation and by mutual consent within 20 days of the receipt
22 of the mediation nomination letters.

23 103. The parties agree that the time period for mediation of
24 the matter in dispute is limited to 30 days from the date the
25 parties sign a contract with a mediator.

1 104 If for any reason the parties are unable to select a
2 mediator, or are unable to approve and execute a contract for
3 mediation services, or are unable to complete mediation, within
4 the time periods for those activities specified in paragraphs 102
5 and 104 above, EPA's Dispute Decision shall be incorporated into
6 and shall become an enforceable element of this order upon the
7 conclusion of such time period.

8 105. Unless the parties agree otherwise, the mediator's
9 roll shall be limited to facilitating negotiations between the
10 parties. Mediation sessions shall not be recorded verbatim and no
11 formal minutes or transcripts shall be maintained. The mediator
12 shall not offer a decision on the merits of the dispute nor shall
13 he/she offer an opinion on the technical merits of the position
14 of either of the parties. The mediator shall make no written
15 finding or recommendations.

16 106. Meetings or conferences with the mediator shall be
17 treated as confidential. Statements made by any person during
18 any such meeting or conferences shall be deemed to have been made
19 in compromise negotiations within the meaning of Rule 408 of the
20 Federal rules of Evidence and applicable state rules of evidence,
21 and shall not be offered in evidence in any proceeding by any
22 person. The mediator will be disqualified as a witness,
23 consultant, as expert in any pending or future action relating to
24 the subject matter of the mediation, including those between
25 persons not a party to the mediation. If a mediator fails to
26 comply with the mediation confidentiality requirements of this
27

1 section, his/her contract may be terminated and he/she will be
2 excluded from any future mediation under this order.

3 107. Any agreement reached by the parties pursuant to this
4 section on a mediated matter shall be in writing and shall be
5 signed by both parties. If the agreement is not signed by the
6 Respondent within 7 days after the resolution of the dispute it
7 shall be null and void and the EPA Dispute Decision shall be
8 incorporated into and become an enforceable element of this
9 Order. The written agreement shall specify which provisions of
10 the EPA Dispute Decision are superseded and /or modified, and
11 shall be incorporated into and become an enforceable element of
12 this consent Order.

13 108. Except as provided in Section XVI: Delay in
14 Performance/Stipulated Penalties, the existence of a dispute as
15 defined in this section and EPA's consideration of such disputed
16 matters, shall not excuse, toll, or suspend any compliance
17 obligation of deadline required pursuant to this Order during the
18 pendency of the dispute resolution process.

19 XVIII. FORCE MAJEURE AND EXCUSABLE DELAY

20 109. "Force majeure", for purposes of this Order, is defined
21 as any event arising from causes not foreseen and beyond the
22 control of Respondent or any person or entity controlled by
23 Respondent, including, but not limited to, Respondent's
24 contractors, that delays or prevents the timely performance of
25 any obligation under this Order despite Respondent's best efforts
26 to fulfill such obligation. The requirement that Respondent
27

1 exercise "best efforts to fulfill such obligation" shall include,
2 but not be limited to, best efforts to anticipate any potential
3 Force Majeure event and address it before, during, and after its
4 occurrence, such that any delay or prevention of performance is
5 minimized to the greatest extent practicable. Force Majeure does
6 not include increased costs of the work to be performed under
7 this Order or financial inability to complete the work.

8 110. If any event occurs or has occurred that may delay the
9 performance of any obligation under this order, whether or not
10 caused by Force Majeure event, Respondent shall contact by
11 telephone and communicate orally with EPA's Project Coordinator
12 or, in his or her absence, EPA's alternative Project Coordinator
13 or, in the event both of EPA's designated representatives are
14 unavailable, the Office Director, of the Office of Waste and
15 Chemicals Management, EPA Region 10 within (72) hours of when
16 Respondent first knew or should have know that the event is
17 likely to cause a delay. Within seven (7) days thereafter,
18 Respondent shall provide to EPA, in writing, the anticipated
19 duration of the delay; all actions taken or to be taken to
20 prevent or minimize the delay; all other obligations affected by
21 the Force Majeure event, and what measures, if any, taken or to
22 be taken to minimize the effect of the event on those
23 obligations; a schedule for implementation of any measures to be
24 taken to prevent or mitigate the delay or the effect of the
25 delay; Respondent's rationale for attributing such delay to a
26 Force Majeure event if it intends to assert such a claim; and a
27

1 statement as to whether, in the opinion of Respondent, such event
2 may cause or contribute to an endangerment to public health,
3 welfare, or the environment. Respondent shall include with any
4 notice all available documentation supporting its claim that the
5 delay was attributable to a Force Majeure. Failure to comply
6 with the above requirement shall preclude Respondent from
7 asserting any claim of Force Majeure for that event. Respondent
8 shall be deemed to have notice of any circumstances of which its
9 contractors had or should have had notice.

10 111. If EPA determines that the delay or anticipated delay
11 is attributable to a Force Majeure event, the time for
12 performance of such obligation under this order that is affected
13 by the Force Majeure event will be extended by EPA for such time
14 as EPA determines is necessary to complete such obligation. An
15 extension of the time for performance of such obligation affected
16 by the Force Majeure event shall not, of itself, extend the time
17 for performance of any other obligation, unless Respondent can
18 demonstrate that more than one obligation was affected by the
19 Force Majeure event. If EPA determines that the delay or
20 anticipated delay has been or will be caused by a Force Majeure
21 event, EPA will notify Respondent, in writing, of the length of
22 the extension, if any, for performance of such obligations
23 affected by the Force Majeure event.

24 112. If EPA disagrees with Respondent's assertion of a Force
25 Majeure event, Respondent may elect to invoke the dispute
26 resolution provision, and shall follow the time frames set forth
27

1 in Section: XVII Dispute Resolution. In any such proceeding,
2 Respondent shall have the burden of demonstrating by a
3 preponderance of the evidence that the delay or anticipated delay
4 has been or will be caused by a Force majeure event, that the
5 duration of the delay or the extension sought was or will be
6 warranted under the circumstance, that best efforts were
7 exercised to avoid and mitigate the effects of the delay, and
8 that Respondent complied with the requirement of this section.
9 If Respondent satisfies this burden, the time for performance of
10 such obligation will be extended by EPA for such time as is
11 necessary to complete such obligation.

12 XIX. RESERVATION OF RIGHTS

13 113. EPA reserves all of its statutory and regulatory
14 powers, authorities, rights, and remedies, regarding any failure
15 by Respondent to comply with this Order, including, without
16 limitation, the assessment of penalties under Section 3008(h)(2)
17 of RCRA, 42 U.S.C. § 6928(h)(2). This Order shall not be
18 construed as a covenant not to sue, release, waiver, or
19 limitation of any rights, remedies, powers, and/or authorities,
20 civil or criminal, by EPA under RCRA, CERCLA, or any other lawful
21 authority.

22 114. EPA reserves the right to disapprove of Work performed
23 by Respondent pursuant to this Order and to request that
24 Respondent perform additional Work.

25 115. EPA reserves the right to perform any portion of the
26 Work consented to herein or any additional site characterization,
27

1 remedy feasibility study, and remedial work as it deems necessary
2 to protect human health or the environment. EPA may exercise its
3 authority under CERCLA to undertake response actions at any time,
4 and EPA reserves its right to seek reimbursement from Respondent
5 for costs incurred by the United States. Notwithstanding
6 compliance with this Order, Respondent is not released from
7 liability, if any, for the costs of any response actions taken or
8 authorized by EPA.

9 116. If EPA determines that activities in compliance or
10 noncompliance with this Order have caused or may cause a release
11 of hazardous waste or hazardous constituent(s), or a threat to
12 human health or the environment, or that Respondent is not
13 capable of undertaking any Work, EPA may order Respondent to stop
14 further implementation of this Order for such time as EPA
15 determines may be necessary. This determination is not subject
16 to Section XVII: Dispute Resolution.

17 117. This Order is not intended to be and shall not be
18 construed to be a permit. The parties acknowledge and agree that
19 EPA's approval of any Submittal does not constitute a warranty or
20 representation that any Submittal will achieve the required
21 result or performance standards. Compliance by Respondent with
22 this Order shall not relieve Respondent of its obligations to
23 comply with RCRA or any other applicable local, State, or federal
24 laws and regulations.

25 118. Respondent does not admit any of the factual or legal
26 determinations made by the EPA and reserves all rights and
27

1 defenses it may have regarding liability or responsibility for
2 conditions at the facility, with the exception of its right to
3 contest EPA's jurisdiction to issue or enforce this Order and its
4 right to contest the terms of this Order. Respondent has entered
5 into this Order in good faith without trial or adjudication of
6 any issue of fact or law.

7 119. In any administrative or judicial proceeding initiated
8 by the United States for injunctive or other appropriate relief,
9 Respondent shall not assert, and may not maintain, any defense or
10 claim based upon the principles of waiver, res judicata,
11 collateral estoppel, issue preclusion, claim-splitting, or other
12 defenses based upon any contention that the claims raised by the
13 United States were or should have been raised in the present
14 matter.

15 XX. JUDICIAL REVIEW

16 120. Respondent shall not seek judicial review of this Order
17 in any action except an action by the United States to:

18 1) enforce this Order; 2) recover costs incurred in connection
19 with this Order; or 3) compel action relating to the releases of
20 hazardous wastes and/or constituents. Judicial review of this
21 Order shall be limited to the administrative record. Otherwise
22 applicable principles of administrative law shall govern whether
23 any supplemental materials may be considered by the court.

24 Nothing in this paragraph shall limit any action by Respondent
25 against any party to recover costs incurred in implementing this
26 Order, or for damages or contribution pursuant to Section 107 of
27

1 CERCLA, 42 U.S.C. § 9607, or other applicable law; or any action
2 pursuant to Section 310 of CERCLA, 42 U.S.C. § 9659, or Section
3 7002 of RCRA, 42 U.S.C. § 6972.

4 XXI. OTHER CLAIMS

5 121. Nothing in this Order shall constitute or be construed
6 as a release from any claim, cause of action, demand, or defense
7 in law or equity, against any person for any liability arising
8 out of or relating in any way to the generation, storage,
9 treatment, handling, transportation, release, or disposal of any
10 hazardous constituents, hazardous substances, hazardous waste,
11 pollutants, or contaminants at or from the Facility. Respondent
12 waives any claims or demands for compensation or payment under
13 Sections 106(b), 111, and 112 of CERCLA, 42 U.S.C. §§ 9606(b),
14 9611, and 9612, against the United States or the Hazardous
15 Substance Superfund established by 26 U.S.C. § 9507 for, or
16 arising out of, any Work performed or expense incurred pursuant
17 to this Order. This Order does not constitute any decision on
18 preauthorization of funds under Section 111(a)(2) of CERCLA, 42
19 U.S.C. § 9611(a)(2).

20 XXII. OTHER APPLICABLE LAWS

21 122. All Work required by this Order shall be undertaken in
22 accordance with the requirements of all applicable local, state,
23 and Federal laws and regulations. Respondent shall obtain or
24 cause its representatives to obtain all permits and approvals
25 necessary under such laws and regulations.

1 XXIII. INDEMNIFICATION OF THE UNITED STATES

2 124. Respondent agrees to indemnify and save and hold
3 harmless the United States, its agencies, departments, agents,
4 and employees, from any and all claims or causes of action
5 arising from or on account of acts or omissions of Respondent or
6 its officers, employees, agents, independent contractors,
7 receivers, trustees, and assigns in carrying out Work required by
8 this Order. This indemnification shall not be construed in any
9 way as affecting or limiting the rights or obligations of
10 Respondent or the United States under their various contracts.

11 XXIV. FINANCIAL RESPONSIBILITY

12 124. Within sixty (60) day of the effective date of this
13 Order, Respondent shall submit to EPA a written cost estimate, in
14 current dollars, of the cost of completion of all Release
15 Assessment, RFI, and CMS activities required by the Order. The
16 cost estimate must be based on the costs of hiring an independent
17 third party to perform all Release Assessment, RFI, and CMS
18 activities required by this Order.

19 125. After Respondent's receipt of notification of EPA's
20 selection of corrective measure(s) and in conjunction with
21 submittal of the CMI Workplan, pursuant to Paragraph 52 of the
22 Order, Respondent shall submit to EPA a revised corrective action
23 cost estimate which shall provide a written estimate of the cost,
24 in current dollars, of completion of all CMI activities, The cost
25 estimate must be based on the costs of hiring an independent
26 third party to perform all CMI activities required by this Order

1 126. Respondent shall adjust the corrective action cost
2 estimate within sixty (60) days after Respondent becomes aware
3 of new information which may affect the cost of satisfactory
4 completion of corrective action activities required by this
5 Order. Respondent shall submit the revised cost estimate to EPA
6 within fifteen (15) days after preparation of the revision.

7 127. Respondent shall maintain the latest cost estimate
8 prepared in accordance with this Section at the Facility.

9 128. Within ninety (90) days after issuance of this Order,
10 Respondent shall establish and shall continuously maintain
11 financial assurance for performance of corrective action at the
12 Facility in at least the amount of the latest cost estimate
13 prepared in accordance with this Section. The mechanism(s) for
14 obtaining and demonstrating financial assurance for corrective
15 action must be one of the forms specified in Paragraphs (a)
16 through (f) of 40 C.F.R. § 265.143. Respondent shall submit
17 documentation of such financial assurance to EPA within fifteen
18 (15) days after establishment of the financial assurance.

1 ACKNOWLEDGMENT OF TERMINATION and
2 AGREEMENT TO RECORD PRESERVATION AND RESERVATION OF RIGHTS

3 1. The United States Environmental Protection Agency
4 ("EPA") agrees and acknowledges that the Administrative Order on
5 Consent, EPA Docket No. 1093-04-02-3008(h), issued by EPA on
6 _____, 19____ ("the Order"), including any additional
7 work required by EPA pursuant to the Order, has been
8 satisfactorily completed based upon the information presently
9 available to EPA.

10 2. Respondent agrees and acknowledges that Section XIV of
11 the Order, entitled: Records Preservation remains in effect until
12 _____. [Insert date 6 years after termination of
13 Order.]

14 3. Respondent agrees and acknowledges that Respondent's
15 completion of the Work required by the Order does not limit or
16 otherwise preclude EPA from taking additional enforcement action
17 pursuant to Section 3008(h) of the Solid Waste Disposal Act, also
18 known as the Resource Conservation and Recovery Act, as amended
19 ("RCRA"), 42 U.S.C. §6928(h), or other applicable authorities,
20 should EPA determine such action is warranted.

21 4. Respondent agrees and acknowledges that Respondent's
22 completion of the work required by the Order does not relieve
23 Respondent of its obligations to comply with RCRA or all other
24 applicable local, state, or federal laws and regulations.

25 IT IS SO AGREED AND ACKNOWLEDGED:

26 Date: _____ By: _____
27 RESPONDENT

28 Date: _____ By: _____
MICHAEL BUSSELL, DIRECTOR
OFFICE OF WASTE AND CHEMICALS
MANAGEMENT
U.S. EPA, REGION 10

1 XXVIII. SURVIVABILITY/PERMIT INTEGRATION

2 133. Except as otherwise expressly provided in this Section,
3 this Order shall survive the issuance or denial of a RCRA permit
4 for the Facility, and this Order shall continue in full force and
5 effect after either the issuance or denial of any permit.

6 Accordingly, Respondent shall continue to be liable for the
7 performance of obligations under this Order notwithstanding the
8 issuance or denial of any permit. If the Facility is issued a
9 RCRA permit and that permit expressly incorporates all or a part
10 of the requirements of this Order, or expressly states that its
11 requirements are intended to replace some or all of the
12 requirements of this Order, Respondent shall be relieved of
13 liability under this Order for those specific obligations.

14 XXIX. ISSUANCE

15 135. This Order shall be issued on the date on which it is
16 signed by the EPA Region X, Office of Waste and Chemicals
17 Management Director.

18
19 IT IS SO AGREED AND ORDERED:

20
21 DATE: 11-10-97

21 BY: A. R. Yunkiewicz
22 A. R. Yunkiewicz, Vice President
23 RESPONDENT

23
24 DATE: 12-12-97

24 BY: Michael Buswell
25 MICHAEL BUSSELL, DIRECTOR
26 Office of Waste and Chemicals
27 Management
28 U.S. Environmental Protection
Agency, Region 10

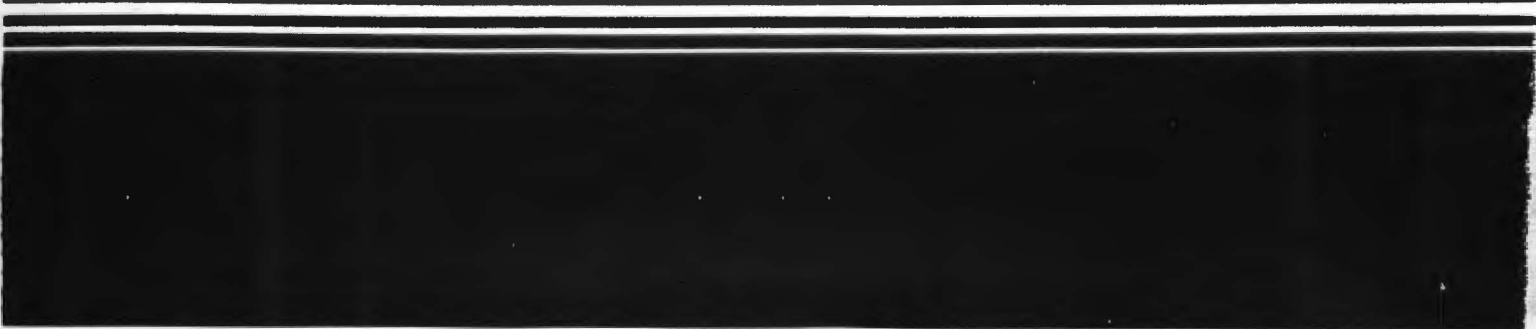
ATTACHMENT A

ATTACHMENT A



RCRA Corrective Action Plan

Final





DIRECTIVE NUMBER: 9902.3-2A

TITLE: RCRA Corrective Action Plan

APPROVAL DATE: May 31, 1994

EFFECTIVE DATE: May 31, 1994

ORIGINATING OFFICE: OWPE/OSW

FINAL

DRAFT

LEVEL OF DRAFT

A — Signed by AA or DAA

B — Signed by Office Director

C — Review & Comment

REFERENCE (other documents): Supercedes Interim Final RCRA Corrective Action Plan (OSWER Directive #9902.3. The Corrective Action Glossary (OSWER Directive #9902.3-1a) should be used as a supplement.

OSWER OSWER OSWER
DIRECTIVE DIRECTIVE

ATTACHMENT B

QUALITY ASSURANCE

1. Respondent shall develop a Quality Assurance Project Plan (QAPP), the primary purpose of which shall be to assist in planning for the collection and analysis of environmental samples in support of the Order and in explaining data anomalies. In general, the QAPP shall consist of the following:

1.1 Throughout all sample collection and analysis activities, Respondent shall use EPA approved quality assurance, quality control, and chain-of-custody procedures described in Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans, QAMS-005/80, December 29, 1980. Respondent's QAPP shall be prepared in the format specified in QAMS-005/80. The following two references may be helpful in preparing the QAPP for this Order:

You and Quality Assurance in Region 10, EPA, Region 10 Quality & Data Management Program, March 1988.

Example Format and Critical Elements of Quality Assurance Project Plans, EPA, Region 10 Quality & Data Management Program.

1.2 The QAPP required under this Order shall include data quality objectives that are relevant to each data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended use(s). The QAPP shall include details on overall and specific data quality objectives, and descriptions of sampling, analyses and field measurements, including the following:

1.2.A The Sampling section of the QAPP shall discuss:

- a. Sampling methods including identification of sampling equipment, purging procedures, and decontamination procedures to be used;
- b. Criteria for determining the type of sampling (e.g., composites, grabs, discrete, continuous);

- c. Measures to be taken to prevent contamination of the sampling equipment and cross-contamination between sampling points;
- d. Selection of appropriate sample containers;
- e. Sample preservation methods; and
- f. Chain-of-custody procedures.

1.2.B The Analysis section of the QAPP shall include details regarding:

- a. Holding times;
- b. Analytical detection and/or quantitation limits for each target compound;
- c. Analytical methods (unless otherwise approved in advance by EPA, methods shall be in accordance with Test Methods for Evaluating Solid Waste (SW-846), Third Edition, November 1986, or as updated);
- d. Type and number of quality assurance field samples appropriate;
- e. Precision and accuracy requirements;
- f. Sample shipment requirements;
- g. Laboratory data delivery requirements; and
- h. The collection and analysis of quality assurance samples for each sampling event, such as field duplicates and matrix spiked samples and analysis of transfer blanks to identify sample contamination.

1.2.C The Field Measurement section of the QAPP shall discuss documentation of field measurement operations and procedures, including procedures and forms for recording field data; calibration of field devices; collection of replicate measurements; potential interferences present; field equipment to be used; and decontamination procedures.

2. Respondent shall submit its QAPP to EPA at least thirty days prior to the initial environmental sampling event. Respondent will take into consideration any comments EPA may provide on the QAPP, and shall respond in writing if EPA so requests. Respondent shall amend the QAPP whenever there is a

modification in the collection of samples, the analysis of samples, or whenever conditions or requirements of the QAPP change. Respondent may utilize the same QAPP or parts thereof for all sampling events to which it is applicable. Respondent shall submit addenda to the QAPP to expand its scope to include additional sampling events. Respondent may incorporate the QAPP and any addenda into any Workplan or report by reference.

3. The conditions and requirements specified in the QAPP shall meet all requirements of the Order. The terms and conditions in the QAPP shall be implemented.

4. The names, addresses, and telephone numbers of analytical laboratories that Respondent intends to use must be specified in the QAPP.

5. Respondent shall monitor and ensure that high quality work is performed by its consultant(s) and its laboratory and contract laboratories. EPA may reject any data that does not meet the requirements of the Order or the approved QAPP. This rejection of data may require that Respondent resample and reanalyze samples from the Facility.

6. A copy of the QAPP shall be retained at the Facility and shall be available to EPA upon request or inspection.

7. The director or manager of each laboratory providing measurement results in support of this Order and each QAPP must sign and submit to EPA with each submittal of laboratory-derived data, the following statement:

I certify these data are in compliance with all laboratory requirements of the QAPP for the Cook Inlet Pipe Line Company dated _____.

Signature: _____ Date: _____

8. Respondent shall obtain, or ensure its laboratories retain, the following documentation for sample analyses from the laboratories which conduct sample analyses in support of this Order, and will provide such documentation to EPA upon request:

- 8.1 All sample tracking reports (i.e., the signed chain-of-custody forms and the signed packing lists);
- 8.2 Sample log-in forms;
- 8.3 Air or freight bills;
- 8.4 Documentation of the condition of custody seals;
- 8.5 Any telephone logs referring to the samples;

- 8.6 Case Narrative signed by the laboratory manager or his/her designee certifying the accuracy and validity of all data reported and describing any changes or problems encountered during the analyses along with documenting their resolution(s);
- 8.7 Tabulated sample results, with units, percent solids, and sample weights or volumes clearly specified;
- 8.8 Blank data with tabulated results. Specify which samples go with which blanks;
- 8.9 Surrogate spike analysis result summaries with calculated percent recovery values;
- 8.10 Matrix spike/duplicate (MS/D) result summaries with calculated percent recovery and relative percent difference values.
- 8.11 All data system printouts and manual worksheets;
- 8.12 Raw QA data including:
 - 8.12.A. Blank data in chronological order (tabulated results and blank data system printouts);
 - 8.12.B. MS/D data in chronological order (tabulated results and MS/D data system printouts);
- 8.13 Extraction, dilution and cleanup logs and percent moisture for all samples, blanks, etc.;
- 8.14 Continuing calibration standards forms that include the lab name, lab code, job number, SDG number, calibration sources, concentration units, analytes, true values, found values and the calculated percent recovery;
- 8.15 The initial calibration curves, labeled with date and time of preparation;
- 8.16 Bench sheets for sample preparation and analysis of samples and standards indicating dates, times, methods of sample digestion/preparation and analysis, and volumes/amounts/concentrations of standard and reagents added, instrument run time/date, dilutions made, etc.; and preparation/weight logs for percent moisture determinations.

All bench sheets and logs are to be labeled with the date and bear the analyst's signature.

9. Respondent shall archive sample data and project records in accordance with the requirements of Section XIV: Records Preservation of this Order, unless such data and records are retained by the laboratory as provided herein. If Respondent's laboratory retains the required documentation in lieu of Respondent, Respondent shall verify at least annually that the required documentation can be retrieved from the laboratory upon Respondent's request. For data collected prior to completion of the CMS, the required documentation must be retained for at least

six years after publication of a Final Decision and Response to Comments. For data collected subsequent to the CMS, the retention period shall be in accordance with Section XIV.

10. Respondent shall ensure that laboratories used by Respondent for analyses of samples obtained pursuant to this Order participate in a quality assurance/quality control (QA/QC) program which is substantively equivalent to that required by EPA for its contract laboratories (EPA Contract Laboratory Program). EPA may conduct a performance and quality assurance Technical Systems Audit of the laboratories chosen by Respondent before, during, or after sample analysis. Respondent shall approve or disapprove the laboratory's QA/QC program after obtaining and reviewing the Laboratory QA and the Standard Operating Procedures (SOPs) which are used by the laboratory to measure samples from the Facility. Respondent shall ensure that all Laboratory QA Plans and SOPs address all applicable requirements of the Order and the QAPP, and all elements specified in the following EPA document: Guidance on Preparation of Laboratory Quality Assurance Plans, U.S. EPA Region 10, EPA 910/9-92-032. Copies of the Laboratory QA Plan(s) and SOPs shall be made available to EPA upon request.

11. Respondent shall ensure that the laboratories used to measure samples for the Order have the facilities, equipment, staff, and QA Program and QC Procedures to perform sample measurements in support of the Order and the QAPP. This may require that Respondent conduct an on-site Technical Systems Audit (as specified in QAMS 004/80 and in National Printing Office and Office of Research and Development QAPP Guidance, Quality Assurance Management Staff, U.S. EPA, September, 1987.) of the laboratories to make this determination.

12. As part of this Order and of Respondent's QAPP, and upon request of EPA, Respondent's laboratories shall perform analyses of Performance Evaluation (PE) samples provided by EPA to demonstrate the capability of the laboratory in meeting the data quality objectives as are specified in the approved Workplans and in the QAPP. EPA will attempt to coordinate provision of PE samples with regularly scheduled sampling events. The results of the measurement of these PE samples will be submitted to EPA upon request at no cost to EPA. EPA reserves the right to conduct at any time an on-site Technical Systems Audit, PE audit, or QA/QC audit of any laboratories chosen by Respondent to measure samples from the Facility.

13. A data validation report shall be prepared for each sampling event conducted pursuant to the requirements of this Order. Per the specifications (regarding the proportion of data to be validated) and the schedule in the approved Workplan, Respondent shall validate analytical data obtained, using U.S. EPA Functional Guidelines for the Validation of Organics and Inorganics Data. The data chosen for validation shall represent the entire range of values obtained. The data validation report

shall be submitted to EPA in the periodic progress report following completion of data validation, or as required by the schedule in an EPA-approved Workplan.

ATTACHMENT C

DATA MANAGEMENT

1. Data Management Plan

Respondent shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and establish data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation. In general, the Data Management Plan should consist of the following:

1.1 Data Record

The data record shall include the following:

- a. Unique sample or field measurement code;
- b. Sampling or field measurement location including, when appropriate, surveyed horizontal coordinates and elevation of the sample location, and sample or measurement type;
- c. Sampling or field measurement raw data;
- d. Laboratory analysis ID number;
- e. Result of analysis (e.g., concentration);
- f. Elevations of reference points for all groundwater level measurements, including water level elevation, top of casing elevation, and ground surface elevation; and
- g. Magnetic computer records of all ground water, soil, surface water, and sediment analytical data meeting the format specifications of the EPA Region 10 ground water data management system.

1.2 Tabular Displays

The following data shall be presented in tabular displays, as appropriate:

- a. Results for each medium and each constituent monitored;
- b. Data reduction for statistical analysis;

- c. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and
- d. Data qualifiers.
- e. Summary data.

1.3 Graphical Displays

The objective of graphical displays of the data is to summarize the data and to indicate trends and to help to comprehensively analyze all data available. The following graphical formats may be appropriate for the data:

- a. Displays of sampling location and sampling grid;
- b. Identification of boundaries of sampling area and areas where more data are required;
- c. Displays of concentrations of contamination at each sampling location;
- d. Displays of geographical extent of contamination;
- e. Areal and vertical displays of contamination concentrations, concentration averages, and concentration maxima, including isoconcentration maps for contaminants found in environmental media at the Facility;
- f. Illustrations of changes in concentration in relation to distance from the source, time, depth, or other parameters;
- g. Identification of features affecting intramedia transport and identification of potential receptors;
- h. Maps showing the distribution of ground water head measurements in each aquifer at an appropriate scale and contour interval; and
- i. For each well, a hydrograph that shows the distribution of water level measurements taken during the RFI for the time interval of the investigation.

ATTACHMENT D

SCHEDULE FOR COMPLETION OF RFI AND CMS/CMI

Cook Inlet Pipe Line Company, Drift River Terminal

FACILITY SUBMISSION	DUE DATE
<u>Release Assessment (RA)</u>	60 days after effective date of this Order
<u>RCRA Facility Investigation (RFI) Draft Workplan</u>	120 days after effective date of this Order
<u>RCRA RFI Final Workplan</u>	45 days after receipt of EPA's comments on the Draft RFI Workplan
<u>RFI Field Work (this is not a submittal)</u>	Initiate as soon as practicable during the 1998 field season
<u>Draft RFI Report</u>	90 days after completion of the RFI field work, or as approved by EPA in the RFI Workplan schedule
<u>Final RFI Report</u>	45 days after receipt of EPA's comments on the Draft RFI Report
<u>Draft Corrective Measure (CMS) Workplan</u>	30 days after EPA's approval of the Final RFI Report
<u>Final CMS Workplan</u>	30 days after receipt of EPA's comments on the Draft CMS Workplan
<u>Draft CMS Report</u>	45 days after EPA's approval of the Final CMS Workplan or as approved by EPA in the Final CMS Workplan schedule
<u>Final CMS Report</u>	30 days after receipt of EPA's comments on the Draft CMS Report
<u>Draft Corrective Measures Implementation (CMI) Workplan</u>	45 days after receipt of notification of EPA's selection of the corrective measure
<u>Final CMI Workplan</u>	45 days after receipt of EPA's comments on the Draft CMI Workplan
<u>CMI Field Work (this is not a submittal)</u>	Initiate as soon as practicable during 1999 field season if Final CMI Workplan is approved before July 1, 1999. If CMI Workplan is approved after July 1, 1999 but before June 1, 2000 will initiate by July 1, 2000
<u>Draft CMI Report</u>	90 days after completion of the field work or as approved by EPA in the Final CMI Workplan schedule
<u>Final CMI Report</u>	45 days after receipt of EPA's comments on the Draft CMI Report