

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III

IN THE MATTER OF:)
) FINAL ADMINISTRATIVE ORDER
NGK Metals Corporation)
Tuckerton Road) U.S. EPA Docket No. RCRA-3-067CA
Reading, Pennsylvania)
)
EPA I.D. No. PAD 04 454 0136)
)
RESPONDENT.) Proceeding under Section
) 3008(h) of the Resource
) Conservation and Recovery
) Act, as amended, 42 U.S.C.
) Section 6928(h).

FINAL ADMINISTRATIVE ORDER

This Final Administrative Order ("Order") is issued to NGK Metals Corporation ("Respondent"), the owner and operator of a facility located on Tuckerton Road, Muhlenberg Township, Berks County, Reading, Pennsylvania (the "Facility" or the "Site"). This Order incorporates the provisions of the Joint Stipulation of the Parties entered on December 20, 1993.

I. JURISDICTION

This Order is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency ("EPA") by Section 3008(h) of the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984 (collectively referred to hereinafter as "RCRA"), 42 U.S.C. § 6928(h). The authority vested in the Administrator has been delegated to the Regional Administrators by EPA Delegation Nos. 8-31 and 8-32, dated March 6, 1986. This authority has been further delegated to the Director, Hazardous Waste Management Division, by EPA Delegation Nos. 8-31 and 8-32, dated January 24, 1989 and to the Associate Director, Office of RCRA Programs, by EPA Delegation Nos. 8-31 and 8-32, dated November 22, 1989.

On January 30, 1986, the EPA granted the Commonwealth of Pennsylvania (the "State") authorization to operate a hazardous waste program in lieu of EPA, pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b). The State, however, does not have authority to enforce RCRA § 3008(h). EPA is notifying the State that this Order is being issued by providing a copy to the State.

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II. PARTIES BOUND

1. This Order shall apply to and be binding upon Respondent and its successors and assigns.

2. No change in ownership of any property covered by this Order, or in corporate or partnership status of Respondent, shall in any way alter, diminish, or otherwise affect Respondent's obligations and responsibilities under this Order.

3. Respondent shall provide a copy of this Order to all supervisory personnel, contractors, subcontractors, laboratories, and consultants retained to conduct and/or monitor any portion of the work performed pursuant to this Order, and shall do so within seven (7) calendar days of the effective date of this Order or date of such retention, whichever is later. All contracts, agreements or other arrangements with such persons shall require such persons to conduct and/or monitor the work in accordance with the requirements of this Order. Notwithstanding the terms of any such contract, agreement or arrangement, Respondent is responsible for complying with this Order and for ensuring that all such persons perform such work in accordance with this Order.

4. In the event of any change in ownership or operation of the Facility and/or in the event of any change in majority ownership or control of Respondent, Respondent shall notify EPA in writing of the nature of such change no later than fifteen (15) calendar days after the effective date of such change. In addition, Respondent shall provide a copy of this Order to any successor in interest prior to the effective date of such change.

III. STATEMENT OF PURPOSE

The purpose of this Order is to require Respondent to implement the RCRA Final Decision and Response to Comments dated September 30, 1992 ("RCRA ROD"), in accordance with the requirements therein. The RCRA ROD is attached hereto as Attachment D and incorporated herein by reference.

IV. EPA's FINDINGS OF FACT

A. The Respondent is a corporation doing business in the Commonwealth of Pennsylvania and is a "person" as defined in Section 1004(15) of RCRA, 42 U.S.C. Section 6903(15).

B. The Respondent is a generator of hazardous waste and owns and operates a hazardous waste management facility located at the Facility. The Respondent is involved with the secondary processing of various alloys containing beryllium at the

Facility.

C. From October 1935 to October 1986, various corporate entities, other than Respondent, owned and operated the Facility. Respondent purchased the Facility from the Cabot Corporation in September 1986.

D. The Facility began operating in 1935. The Facility extracted beryllium from beryl ore using the Copaux-Kawecki complex fluoride process. This process resulted in the production of wastewater containing sodium fluoride. The beryllium metal extracted was used in alloying. The alloying process produced a chloride waste. The alloys were treated and finished using pickle liquors which consisted of sodium dichromate and sulfuric and nitric acids.

E. On August 13, 1980, the then-owner of the Facility, Kawecki Berylco Industries, Inc. ("Kawecki"), submitted to EPA a Notification of Hazardous Waste Activity ("Notification") for the Facility pursuant to Section 3010 of RCRA, 42 U.S.C. Section 6930. In the Notification, Kawecki identified itself as a generator of hazardous waste and as an owner and operator of a hazardous waste treatment, storage and/or disposal facility. EPA assigned the Facility the RCRA identification number PAD 04 454 0136.

F. The Notification listed the wastes generated at the Facility as:

1. F001, F002, F006, F007, F012 (see 40 C.F.R. Section 261.31);
2. P015, P106 (see 40 C.F.R. Section 261.33); and
3. U013 and U226 (see 40 C.F.R. Section 261.33).

G. On November 18, 1980, the then-owner of the Facility, Cabot Berylco, Inc., submitted a Part A Permit Application ("Part A") for the Facility.

H. In the November 18, 1980 Part A, Cabot Berylco, Inc. affirmed that it was engaged in the treatment and storage of hazardous waste at the Facility. The Part A described the following activities conducted at the Facility:

1. containers, used for storage of spent halogenated solvents used in degreasing (F001) (see 40 C.F.R. Section 261.31);
2. containers, used for storage of beryllium dust (P015) (see 40 C.F.R. Section 261.33);

3. tanks, used for storage of solid waste which exhibits the characteristic of corrosivity (D002) (see 40 C.F.R. Section 261.22);
4. tanks, used for storage and treatment of wastewater sludges from electroplating operations (F006) (see 40 C.F.R. Section 261.31); and
5. tanks, used for treatment of spent cyanide plating bath solutions from electroplating operations (F007) (see 40 C.F.R. Section 261.31), quenching wastewater treatment sludges from metal heat treating operations where cyanide is used in the process (F012) (see 40 C.F.R. Section 261.31), and sodium cyanide (P106) (see 40 C.F.R. Section 261.33).

I. The Facility operated as a hazardous waste management facility on or before November 19, 1980 and, consequently, the Facility is an "existing hazardous waste management facility," as defined in 40 C.F.R. Section 260.10.

J. The Facility qualified for "interim status," pursuant to Section 3005(e) of RCRA, 42 U.S.C. Section 6925(e). EPA acknowledged the Facility's interim status in a letter to Cabot Corporation dated August 2, 1981.

K. The Facility is subject to the interim status requirements contained in Sections 3004 and 3005 of RCRA, 42 U.S.C. Sections 6924 and 6925.

L. Cabot Berylco, Inc. submitted a Part B Permit Application to the Pennsylvania Department of Environmental Resources ("PADER") on October 27, 1982 and to EPA on December 24, 1984. The Part B Permit Application addressed several units at the Facility, including the PADER permitted "KBI" waste landfill (Permit No. 300655). The Cabot Wrought Products Division, however, notified both EPA and PADER on April 3, 1985 that it wished to withdraw the Part B Permit Application filed by its predecessor.

M. The Cabot Corporation submitted a revised Part A Permit Application to EPA on November 8, 1985 in order to change its status from that of a hazardous waste treatment, storage, or disposal ("TSD") facility to that of a generator of hazardous waste.

N. The Respondent submitted a revised Notification to EPA on September 24, 1986 regarding a change of ownership of the Facility. In the revised Notification, Respondent notified EPA it had become the owner/operator of the Facility,

and generated the following hazardous wastes: wastes exhibiting the characteristics of ignitability (D001), corrosivity (D002), reactivity (D003), and EP-toxicity (D000) in addition to spent halogenated solvents used in degreasing (F001), beryllium (P015), sodium cyanide (P106), and methyl chloroform or 1,1,1-TCA (U226).

O. On August 29, 1988, EPA and Respondent entered into an Administrative Order on Consent, Docket Number RCRA-III-011-CA, pursuant to RCRA Section 3008(h) to conduct a RCRA Facility Investigation ("RFI") and Corrective Measures Study ("CMS") to evaluate the extent of the release of hazardous waste/constituents at the Facility and develop measures to remediate the release.

P. On November 15, 1990, the Facility submitted an RFI Report which described the Solid Waste Management Units ("SWMUs") at the Facility as follows:

SWMU #1 - Pond 1 was unlined and used from approximately 1950 to 1960 to settle process wastewater sludge. Following removal of the sludge, the 0.5 acre pond was filled with gravel and construction/demolition debris and covered with gravel and soil. Soil samples collected during the RFI determined that waste residues in the pond contain beryllium, copper, cadmium, arsenic, nickel, antimony, cobalt, silver, and chromium.

SWMU #2 - Pond 2 was unlined and received the effluent from Pond 1. Use of this 0.75 acre pond was discontinued in the early 1960's. The pond has since been leveled and covered with soil. The analysis of soil samples collected during the RFI detected the presence of waste residues in the pond containing fluorides, beryllium, cadmium, copper, nickel, cobalt, mercury, lead, and chromium.

SWMU #3 - Pond 3 was unlined and was used for the storage of storm water runoff from the Facility. Use of the approximately 0.3 acre pond was discontinued in the early 1960's, and it has been leveled and covered with soil. Process wastes, red mud and metal debris are present at depths up to 15 feet. Red mud is the residue material left over from the extraction of the beryl ores which were processed at the Facility until 1965. Analysis of soil samples from Pond 3 collected during the RFI detected the presence of beryllium, copper, cobalt, and fluoride.

SWMU #4 - Pond 4 was an unlined surface impoundment used for the disposal of red mud and filter cake resulting from the production of beryllium metal. Use of the approximately 1.25 acre pond was discontinued in the mid-1960's, and the pond was leveled and covered with soil. Analysis of soil samples from this pond detected fluorides, copper,

beryllium, cobalt, nickel, and zinc.

SWMU #5 - Pond 5 was an unlined surface impoundment used for the disposal of red mud and lime sludge. Use of the approximately 0.75 acre pond was discontinued in the mid-1960's and it has since been leveled and covered with soil. Analysis of soil samples collected during the RFI from Pond 5 detected fluorides, beryllium, copper, and cadmium in the pond.

SWMU #6 - This unit is known as the soil stock pile. This waste pile contains the remnants of the former Pond 6 surface impoundment which was removed in 1979 to make way for the active residual waste landfill discussed in Paragraph L, above. Pond 6 was historically used for the disposal of process wastewater sludge. Soil samples taken during the RFI demonstrate that the waste pile contains beryllium, chromium, cadmium and lead at levels consistent with background concentrations.

SWMU #7 - This unit is known as the Retention Basin. The Retention Basin was historically used for storm water run-off control. Use of the approximately 0.4 acre basin was discontinued in the late 1950's and it was filled. Presently the Retention Basin serves as the foundation for the parking lot. Based on the analysis of soil samples collected during the RFI, it appears that red mud was included in the fill materials placed in the Retention Basin. Soil samples taken from the fill contained nickel, cobalt, zinc, copper, and beryllium.

SWMU #8 - This unit is known as the Drain Field Area. The Drain Field Area is hydraulically downgradient of all SWMUs and received the overflow from them. The approximately 0.6 acre Drain Field Area was capped in the early 1960's. Soil samples collected in the Drain Field Area contained beryllium, cadmium, chromium, cobalt, and copper.

Q. Respondent has completed the RFI and CMS for the Facility and EPA has received the following reports which are included in the Administrative Record supporting the issuance of this Order:

1. NGK Metals Corporation, RCRA Facility Investigation, Volumes I and II, dated November 15, 1990; RFI Addendum, dated October 24, 1991;
2. RCRA Corrective Measures Study, Summers Model, NGK Metals Corporation, Reading Facility, dated February 21, 1992;
3. Three Dimensional Finite-Difference Groundwater Flow Model, NGK Metals Corporation, Reading Facility, dated

February 21, 1992;

4. Human Health Evaluation and Ecological Assessment, Volumes 1 and 2, dated February 1992;

5. RCRA Corrective Measures Study, NGK Metals Corporation, Reading Facility, dated March 13, 1992;

6. Responses to EPA's comments on the Human Health Evaluation and Ecological Assessment, dated April 17, 1992;

7. RCRA Corrective Measures Study, NGK Metals Corporation, Reading Facility, dated March 13, 1992, revised May 8, 1992;

R. On September 3, 1992, Respondent informed EPA that, in addition to operating wastewater treatment tanks, the Facility generates spent chlorinated solvents (F001 and F002), ignitable (D001), corrosive (D002), and toxic (D007, D008, and D039) characteristic hazardous wastes and stores spent acid and trichloroethane (1,1,1-TCA) for less than 90 days.

S. Sampling data from the RFI, which is presented in the RCRA ROD, indicates that beryllium, chromium, 1,1-dichloroethylene, fluoride, and trichloroethylene are present in groundwater at the Facility at levels above EPA Maximum Contaminant Levels (see 40 C.F.R. Part 141, Subpart B).

T. The reports itemized at Paragraph Q, above, document the release of hazardous wastes and constituents into the air, soil, and groundwater at the Facility. Hazardous wastes and constituents leaching from SWMUs at the Facility have already migrated off-site via ground and surface water pathways. If left uncontrolled, these contaminants may continue to migrate off-site and adversely effect nearby surface water and ground water downgradient of the Facility. The residential population within a three mile radius of the Facility is approximately 30,000.

U. The human health effects of beryllium, chromium, fluoride, 1,1-dichloroethylene and trichloroethylene are described in the EPA report "Chemical, Physical, and Biological Properties of Compounds Present at Hazardous Waste Sites" (EPA 1985), relevant excerpts of which are set forth in the Administrative Record supporting the issuance of this Order.

V. The RFI demonstrates that hazardous wastes and constituents have leached offsite and have infiltrated public and private water supplies. The Facility has also discharged hazardous constituents directly into Laurel Run, resulting in harm to flora and fauna in the Laurel Run ecosystem.

W. The Facility is located near:

1. Muhlenberg Township Water Authority Water System, which provides the water supply to commercial businesses and approximately 30,000 local residents in Muhlenberg Township and Temple Borough;
2. Laurel Run, a perennial stream adjacent to the Facility which receives surface water run-off and the NPDES discharge from the Facility's wastewater treatment plant; and
3. the Schuylkill River, located 3 miles downgradient of the Facility, which serves as one of the drinking water sources for the City of Pottstown, PA.

X. If left unremediated, hazardous wastes and constituents in the soils and groundwater at the Facility may continue to migrate from the Facility into the environment via groundwater pathways. In that event, such contaminants could migrate toward one or more of the potential receptors identified in Paragraph W, above.

Y. On July 31, 1992, EPA made a preliminary Corrective Measures selection in a Statement of Basis. On July 22, 1992, EPA conducted a public meeting and presented the proposed Corrective Measures Alternative to the public. The public comment period extended from July 24 to September 5, 1992.

Z. On September 30, 1992, EPA issued a Final Decision and Response To Comments ("RCRA ROD") which identified the selected remedy to be implemented at the Facility, and provided responses to all written comments received during the public comment period. The RCRA ROD describes the remedy as follows:

- o Relocate the waste pile comprising solid waste management unit ("SWMU") #6 to SWMU #4 and SWMU #5 red mud disposal areas to provide for proper drainage across the Facility.
- o Cover SWMUs 1, 2, 3, 4, 5 and 8 with an impermeable asphalt-geotechnical cap for source control. The cap will consist of an asphalt surface layer, a 50-mil synthetic liner and an intervening earth layer.
- o Build interceptor swales to divert storm water run-on/run-off away from SWMU's 1, 2, 3, 4, 5 and 8.
- o Pump the contaminated groundwater to contain and withdraw the contaminated groundwater.

- o Conduct periodic sampling and analysis of capped SWMU surface.
- o Treat the recovered contaminated groundwater by interaction with granulated activated carbon (GAC) beds to remove volatile organics.
- o Treat the recovered groundwater in an on-site wastewater treatment plant to precipitate out the metals in wastewater treatment plant sludges.
- o Dispose of the spent carbon from the GAC beds and wastewater treatment sludges in accordance with applicable rules and regulations.
- o Discharge the treated groundwater to the Laurel Run Creek (hereinafter "Laurel Run"), Schuylkill River, or the City of Reading sanitary sewer system in accordance with the Clean Water Act and a National Pollutant Discharge Elimination System ("NPDES") permit.
- o Maintain the existing security system which includes a fence which encloses the Facility, as well as a 24-hour per day security guard.
- o Restrict the Facility deed to:
 - Limit future land use of the property to an industrial scenario,
 - prevent the installation of on-site drinking water wells,
 - require future land owners to maintain the asphalt geotechnical caps and interceptor swales,
 - prevent construction and/or any other activities which would damage the ability of the asphalt geotechnical cap and interceptor swales to prevent precipitation infiltration.
- o Require that all designs and/or changes to the Facility involving soil disturbances (i.e., excavation) be submitted to and approved by EPA.
- o Conduct periodic groundwater monitoring.
- o Conduct additional ecological assessment of Laurel Run.

AA. On October 1, 1993, Respondent submitted to EPA for approval a Corrective Measures Implementation ("CMI") Workplan. On December 13, 1993, Respondent submitted a revised CMI Workplan to EPA. EPA approved the CMI Workplan on January 31, 1994. On November 3, 1993, Respondent submitted a Health and Safety

Plan.

BB. On October 29, 1993, Respondent submitted to EPA for approval a proposal for installation of new groundwater recovery wells. On November 16, 1993 and February 25, 1994, EPA approved the proposed location and installation of the additional recovery wells.

V. EPA'S CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set out above, and after consideration of the Administrative Record supporting issuance of this Order, EPA has made the following Conclusions of Law and Determinations:

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

B. Respondent is the owner and operator of a facility authorized to operate under Section 3005(e) of RCRA, 42 U.S.C. Section 6925(e).

C. Beryllium, chromium, 1,1-dichloroethylene and trichloroethylene are "hazardous wastes" within the meaning of Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h).

D. There is or has been a "release of hazardous waste into the environment from a facility" within the meaning of Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h).

E. The actions required by this Order are necessary to protect human health or the environment.

VI. WORK TO BE PERFORMED

1. Pursuant to Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h), Respondent is hereby ordered to implement the requirements of the RCRA ROD and perform the following acts in the manner and by the dates specified herein. All work undertaken pursuant to this Order shall be developed and performed in accordance with: the Scope of Work for the Corrective Measures Implementation Program ("CMI") set forth in Attachment A to this Order; the Scope of Work for a Health and Safety Plan set forth in Attachment B; the Scope of Work for an Interim Measures Plan set forth in Attachment C; the RCRA ROD for the Facility set forth in Attachment D; RCRA and its implementing regulations; and relevant EPA guidance documents. Relevant guidance documents include, but are not limited to, "RCRA Ground Water Monitoring Technical Enforcement Guidance Document" (OSWER Directive 9950.1, September 1986), "Test Methods for Evaluating

Solid Waste" (SW-846, November 1986), "Construction Quality Assurance for Hazardous Waste Land Disposal Facilities" (EPA 530/SW-85-031, July 1986), and "OWRS Guidance for Preparation of QA Project Plans" (OWRS-QA-1, May 1984), and revisions thereto. All Scopes of Work and other Attachments to this Order are incorporated herein by reference.

2. "Days" as used herein shall mean calendar days unless specifically stated otherwise.

A. Corrective Measures Implementation Work Plan

As discussed in Paragraph V.AA, above, Respondent has submitted, and EPA has approved, a Corrective Measures Implementation Work Plan ("CMI Work Plan").

B. Corrective Measure Implementation Health and Safety Plan

As discussed in Paragraph V.AA, above, Respondent submitted a CMI Health and Safety Plan on November 3, 1993.

C. Corrective Measures Design

1. On September 27, 1994 Respondent shall submit to EPA for approval a 50 Percent Cap Design Report which provides for design of the impermeable asphalt-geotechnical cap selected in the RCRA ROD and which meets the requirements of Attachment A, Task II. In addition to the cap, the 50 percent Cap Design Report shall provide for design of all Corrective Measures not related to groundwater pumping, collection or treatment (relocation of waste pile comprising SWMU #6 and construction of interceptor swales).

2. Within forty-five (45) calendar days of receipt of EPA's comments on the 50 Percent Cap Design Report, Respondent shall submit to EPA for approval a 90 Percent Cap Design Report. The 90 Percent Cap Design Report shall include those items listed in Attachment A, Task II.E.2. The 90 Percent Cap Design Report shall address EPA's comments on, and remedy any deficiencies in, the 50 Percent Cap Design Report. The Report shall reflect the completion of ninety percent of the design work for the cap and all Corrective Measures not related to groundwater pumping, collection or treatment.

3. Within thirty (30) calendar days of receipt of EPA's comments on the 90 Percent Cap Design Report submitted pursuant to Paragraph C.2, above, Respondent shall submit to EPA for approval a Final (100 Percent) Cap Design Report. The Final (100 percent) Cap Design Report shall address EPA's comments on, and remedy any deficiencies in, the 90 Percent Cap Design Report. The Final Report shall provide final design plans and specifications for construction of the cap and any other

Corrective Measures not related to groundwater pumping, collection or treatment.

4. Within thirty (30) calendar days of receipt of EPA's approval of the CMI Work Plan, Respondent shall install new groundwater recovery wells in accordance with the EPA-approved CMI Work Plan. Within thirty (30) days of receipt of EPA approval of the construction of the recovery wells, Respondent shall complete pump testing of the new groundwater recovery wells in accordance with the CMI Work Plan and submit to EPA for approval a Pump Test Report.

5. Within sixty (60) calendar days of receipt of EPA's approval of the Pump Test Report, Respondent shall submit to EPA for approval a 50 Percent Groundwater Pumping and Collection Design Report which provides for the design of the groundwater pumping and collection system selected in the RCRA ROD and which meets the requirements of Attachment A, Task II.

6. Within seventy-five (75) days of receipt of EPA comments on the 50 Percent Groundwater Pumping and Collection Design Report, Respondent shall submit to EPA for approval a 90 Percent Groundwater Pumping and Collection Design Report. The 90 Percent Groundwater Pumping and Collection Design Report shall include those items listed in Attachment A, Task II. The 90 Percent Groundwater Pumping and Collection Design Report shall respond to EPA's comments on, and remedy any deficiencies in, the 50 Percent Groundwater Pumping and Collection Design Report. The Report shall reflect ninety percent of design work completed.

7. Within thirty (30) calendar days of receipt of EPA's comments on the 90 Percent Groundwater Pumping and Collection Design Report submitted in accordance with Attachment A, Task II, Respondent shall submit to EPA for approval a Final (100 Percent) Groundwater Pumping and Collection Design Report which addresses EPA's comments on, and remedies any deficiencies identified by EPA in, the 90 Percent Groundwater Pumping and Collection Design Report and provides final design plans and specifications for groundwater pumping and collection.

8.a. Within sixty (60) days of receipt of EPA approval of the Pump Test Report, Respondent shall submit to the Pennsylvania Department of Environmental Resources or the Muhlenberg Township Water Authority, as appropriate, a complete application for discharge of treated groundwater to a surface water body or the sanitary sewer system. Respondent shall simultaneously furnish EPA with copies of the application.

8.b. Within one hundred twenty (120) days of commencement of construction of the cap, Respondent shall submit to EPA for approval a 50 Percent Groundwater Treatment System Design Report which meets the requirements of Attachment A, Task II. In the

event that a final groundwater discharge permit has not been issued to the Respondent by the time that construction of the cap has commenced, and Respondent has submitted a timely and complete application for such permit and has met all of its obligations with respect to obtaining such permit, and the failure to obtain the permit is not attributable to Respondent, Respondent shall submit to EPA for approval a 50% Groundwater Treatment System Design Report which meets the requirements of Attachment A, Task II within ninety (90) days of the issuance of such permit.

9. Within ninety (90) days of receipt of EPA comments on the 50 Percent Groundwater Treatment System Design Report, Respondent shall submit to EPA for approval a 90 Percent Groundwater Treatment System Design Report. The 90 Percent Groundwater Treatment System Design Report shall include those items listed in Attachment A, Task II. The 90 Percent Groundwater Treatment System Design Report shall respond to EPA's comments on, and remedy any deficiencies identified by EPA in, the 50 Percent Groundwater Treatment System Design Report. The Report shall reflect ninety percent of design work completed.

10. Within thirty (30) calendar days of receipt of EPA's comments on the 90 Percent Groundwater Treatment System Design Report submitted in accordance with Attachment A, Task II, Respondent shall submit to EPA for approval a Final (100 Percent) Groundwater Treatment System Design Report which addresses EPA's comments on, and remedies any deficiencies identified by EPA in, the 90 Percent Groundwater Treatment System Design Report and provides final design plans and specifications for construction of the groundwater treatment system.

D. Corrective Measures Construction and Implementation

1. Respondent shall commence construction of the cap and groundwater pumping and collection system, groundwater treatment system and any other Corrective Measures specified in the RCRA ROD within forty-five (45) calendar days of receipt of EPA approval of the respective Final Design Report(s) for such Corrective Measure. The Corrective Measures shall be constructed and implemented in accordance with the RCRA ROD, Attachment A, Task III, and the EPA-approved Final (100 Percent) Design Reports.

2. In accordance with the schedule in the EPA-approved CMI Work Plan, Respondent shall submit a Draft CMI Report to EPA for approval in accordance with Section VI.G of this Order. The Draft CMI Report shall describe activities performed during construction, provide actual specifications of the implemented remedy, and provide a preliminary assessment of the performance of the Corrective Measures, in accordance with Attachment A, Task III.D.

3. EPA shall determine, on the basis of the EPA-approved CMI Report and any other relevant information, whether the constructed project is consistent with the design specifications in the EPA-approved Final Design Reports and whether the Corrective Measures are achieving the requirements set forth in the RCRA ROD. If EPA determines that the constructed project is consistent with the design specifications and that the Corrective Measures are achieving the requirements set forth in the RCRA ROD, EPA shall notify Respondent of such determination, in writing.

4. If EPA determines that the constructed project is inconsistent with any EPA-approved Final Design Report and/or that the Corrective Measures are not achieving the requirements set forth in the RCRA ROD, EPA shall notify Respondent of those activities that must be undertaken to complete the construction of the Corrective Measures and shall set forth a schedule for the completion of those activities. Respondent shall complete the activities in accordance with the requirements and schedule set forth in the EPA notification.

E. Corrective Measures Operation and Maintenance

1. Respondent shall perform the Operation and Maintenance ("O&M") activities listed in Attachment A, Task IV, in accordance with the EPA-approved CMI Work Plan and the EPA-approved O&M Plan submitted pursuant to Attachment A, Task II.D.

2. No later than one (1) year from receipt of EPA's determination pursuant to Section VI, Paragraph D.3, above, and annually thereafter until receipt of notice from EPA that the requirements of the RCRA ROD have been met, Respondent shall submit to EPA for approval, in accordance with Section VI.G of this Order, a Draft Annual O&M Assessment Report in accordance with Attachment A, Task IV.

3. At any time after receipt of EPA approval of the third Annual O&M Assessment Report, Respondent may petition EPA for a determination that Respondent has achieved the requirements specified in the RCRA ROD. Respondent shall provide information to support such petition. EPA shall notify Respondent of its determination, and the basis therefor, in writing.

F. Interim Measures ("IM")

1. If at any time during the pendency of this Order Respondent obtains or discovers information concerning a release of any hazardous waste or hazardous constituent at or from the Facility into the environment, in addition to or different from that described in Section IV ("FINDINGS OF FACT") above, Respondent shall immediately notify EPA orally of such release, and shall notify EPA in writing within three (3) calendar days of

providing oral notification. The notification(s) shall describe the nature and extent of the release and any threat or potential threat to human health or the environment posed by such release. If EPA determines that corrective action for such release is necessary to protect human health or the environment, EPA shall notify Respondent. Within ten (10) calendar days of receipt of such notice from EPA, Respondent shall submit to EPA for approval a Draft IM Work Plan which identifies Interim Measures which will protect human health and the environment from such release and which are, to the extent practicable, consistent with and integrated into the Corrective Measures set forth in the RCRA ROD. Respondent may request a hearing under 40 C.F.R. Part 24 should EPA attempt to implement this Section VI.F.1. Such request shall be made within 10 days of receipt of notice from EPA that corrective action is necessary. If Respondent does not request a hearing within ten (10) days, its right to a hearing is waived. Any hearing under this Section shall be limited to the dispute concerning this Section VI.F.1. and shall not encompass any other provision of this Order.

2. The Draft IM Work Plan shall be developed in accordance with the IM Scope of Work in Attachment C to this Order. The Draft IM Work Plan shall document the procedures to be used by Respondent for the implementation of the Interim Measures and shall include, but not be limited to, an Interim Measures Project Management Plan, a Data Collection Quality Assurance Plan, a Data Management Plan, and a Community Relations Plan.

3. In addition to the Draft IM Work Plan, Respondent shall submit to EPA for approval Design Plans and Specifications, an Operation and Maintenance Plan, a Project Schedule for the expeditious completion of the Interim Measures, an Interim Measures Construction Quality Assurance Plan, and the required reports.

4. Concurrent with its submission of the Draft IM Work Plan, Respondent shall submit to EPA an IM Health and Safety Plan in accordance with the provisions of Attachment B of this Order.

5. Upon receipt of EPA approval of the Draft IM Work Plan, Respondent shall implement the EPA-approved IM Work Plan in accordance with the requirements and schedules contained therein.

G. Submissions/Certification/EPA Approval

1. EPA will review all documents which Respondent submits pursuant to the terms of this Order ("Submissions") and will notify Respondent in writing of EPA's approval or disapproval of each such Submission, with the exception of the CMI and IM Health and Safety Plans and progress reports. In the event of EPA's disapproval, EPA shall specify in writing any deficiencies in the Submission. EPA may, at its discretion,

direct Respondent to implement non-deficient portions of a Submission.

2. Within thirty (30) calendar days of receipt of EPA's comments on the Submission, or ten (10) calendar days in the case of an IM Workplan, Respondent shall submit to EPA for approval a revised Submission, which responds to EPA's comments and/or corrects any deficiencies identified by EPA. In the event of EPA disapproval of the revised Submission, EPA reserves the right to revise such Submission and seek to recover from Respondent the costs thereof, in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 ("CERCLA"), and any other applicable laws, and/or to take any other appropriate action under RCRA, CERCLA, or any other legal authority. Any Submission approved or revised by EPA under this Order shall be deemed incorporated into and made an enforceable part of this Order.

3. Upon receipt of EPA approval of a Submission, Respondent shall take such action, if any, as is required by the approved Submission in accordance with the requirements and schedule(s) set forth therein.

4. Beginning with the fifteenth day of the second full month following the effective date of this Order, and every two months thereafter on the fifteenth day of the month, throughout the period that this Order is effective, Respondent shall provide EPA with bimonthly (every two months) progress reports. The bimonthly progress reports shall contain the information required in Attachment A, Task V.

5. Four (4) copies of all Submissions required by this Order shall be hand-delivered or sent by Certified Mail, Return Receipt Requested, to the EPA Project Coordinator designated pursuant to Section XII ("PROJECT COORDINATOR"), below.

6. Any notice, report, certification, data presentation, or other document submitted by Respondent pursuant to this Order which discusses, describes, demonstrates, supports any finding or makes any representation concerning Respondent's compliance or noncompliance with any requirement of this Order shall be certified by a responsible corporate officer or a duly authorized representative of a responsible corporate officer. A "responsible corporate officer" means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (b) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$35 million (in 1987 dollars when the Consumer Price Index was

345.3), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. A person is a "duly authorized representative" only if: (1) the authorization is made in writing by a person described above; (2) the authorization specifies either an individual or position having responsibility for overall operation of the regulated facility or activity (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and (3) the written authorization is submitted to the Project Coordinator designated by EPA in Section XIII ("PROJECT COORDINATOR") of this Order.

7. The certification required by Paragraph 6, above, shall be in the following form:

I certify that the information contained in or accompanying this [type of submission] is true, accurate, and complete.

As to [the/those identified portion(s)] of this [type of submission] for which I cannot personally verify [its/their] accuracy, I certify under penalty of law that this [type of submission] and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: _____
Name: _____
Title: _____

H. Additional Work

1. EPA may determine that certain tasks, including, but not limited to, investigatory work, engineering evaluation, or procedure/methodology modifications, are necessary in addition to or in lieu of the tasks included in any EPA-approved Submission, to meet the purposes set forth in Section III ("STATEMENT OF PURPOSE") of this Order. EPA will notify the Respondent of this determination and the basis for the same.

2. Within twenty-one (21) calendar days after the receipt of such determination, Respondent shall have the opportunity to

meet or confer with EPA to discuss the additional work. If required by EPA, Respondent shall submit for EPA approval a work plan for the additional work. Such work plan shall be submitted within thirty-five (35) days of receipt of EPA's determination that additional work is necessary, or according to an alternative schedule established by EPA. Upon receipt of EPA approval of the work plan, Respondent shall implement it in accordance with the schedule and provisions contained therein. Respondent may request a hearing under 40 C.F.R. Part 24 should EPA attempt to implement this Section VI.H.2. Such request shall be made within twenty-one (21) days of receipt of notice from EPA that corrective action is necessary. If Respondent does not request a hearing within twenty-one (21) days, its right to a hearing is waived. Any hearing under this Section shall be limited to the dispute concerning this Section VI.H.2. and shall not encompass any other provision of this Order.

3. If Respondent fails to perform the additional work, EPA reserves the right to perform such additional work itself and seek to recover all costs of performing such additional work from Respondent, and/or to disapprove of the CMI Work Plan, Corrective Measure Design Report(s) and/or the CMI Report.

4. At any time during or after the implementation of the Corrective Measures specified in the RCRA ROD, EPA may determine that the media clean-up standards specified in the RCRA ROD have not been met and/or that the continued implementation of the Corrective Measures is not likely to achieve those clean-up standards, EPA may select an alternative and/or a supplemental Corrective Measure(s) pursuant to applicable EPA regulations and/or guidance and RCRA Section 3008(h), 42 U.S.C. Section 6928(h). EPA may determine that Respondent shall implement such supplemental and/or alternative corrective measures, may implement the supplemental and/or alternative corrective measures itself and seek to recover the cost of such implementation from Respondent, and/or may take any other appropriate action under RCRA, CERCLA, or any other legal authority.

I. Contractor Review

1. All work performed pursuant to this Order shall be under the direction and supervision of a professional engineer or geologist with expertise in hazardous waste site remediation. Within ten (10) calendar days after the effective date of this Order or date of retention of such supervising professional engineer or geologist, whichever is later, Respondent shall submit to EPA, in writing, the name, title, and qualifications of the supervising professional engineer or geologist and, to the extent known by Respondent at that time, of any contractors or subcontractors to be used in carrying out the terms of this Order. Within ten (10) calendar days of retaining any other contractor(s) or subcontractor(s) to be used in carrying out the

terms of this Order, Respondent shall submit to EPA, in writing, the names, titles and qualifications of those additional contractors or subcontractors. Notwithstanding Respondent's selection of an engineer, geologist, contractor or subcontractor, nothing herein shall relieve Respondent of its obligation to comply with the terms and conditions of this Order.

2. EPA shall have the right to disapprove at any time the use of any professional engineer, geologist, contractor or subcontractor selected by Respondent. Within fifteen (15) calendar days of receipt from EPA of written notice disapproving the use of any professional engineer, geologist, contractor or subcontractor, Respondent shall notify EPA, in writing, of the name, title and qualifications of the personnel who will replace the personnel disapproved by EPA. In the event EPA disapproves the use of any professional engineer, geologist, contractor or subcontractor, relevant deadlines required to be met by Respondent under the terms of this Order may be extended by EPA for a reasonable period of time in order to allow Respondent to retain and prepare a replacement professional engineer, geologist, contractor or subcontractor.

3. Respondent shall notify EPA seven (7) days prior to voluntarily changing its engineer or geologist, and/or contractors or subcontractors to be used in carrying out the terms of this Order, and shall submit to EPA, in writing, the name, title, and qualifications of the substitute engineer, geologist, contractor or subcontractor.

VII. QUALITY ASSURANCE

Throughout all sample collection and analysis activities, Respondent shall use EPA-approved quality assurance, quality control, and chain-of-custody procedures, as specified in the EPA-approved Work Plans. In addition, Respondent shall:

1. Ensure that laboratories used by Respondent for analyses perform such analyses according to the EPA methods included in "Test Methods for Evaluating Solid Waste" (SW-846, November 1986) or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall submit all analytical protocols to be used for analyses to EPA for approval at least thirty (30) calendar days prior to the commencement of analyses and shall obtain EPA approval prior to the use of such analytical protocols.
2. Ensure that laboratories used by Respondent for analyses participate in a quality

assurance/quality control program equivalent to that which is followed by EPA. As part of such a program, and upon request by EPA, such laboratories shall perform analyses of samples provided by EPA to demonstrate the quality of the analytical data.

3. Inform the EPA Project Coordinator at least fourteen (14) days in advance of any laboratory analysis regarding which laboratory will be used by Respondent, and ensure and/or make it a condition in any contract with such laboratories that EPA personnel and EPA authorized representatives have access at all reasonable times to the laboratory(ies), records and personnel used for analysis of samples collected pursuant to this Order.

VIII. PUBLIC REVIEW OF ADMINISTRATIVE RECORD

The Administrative Record supporting the issuance of this Order will be available for public review on Mondays through Fridays, from 9:00 a.m. to 4:00 p.m., by contacting the EPA Project Coordinator, Vernon Butler, at:

U.S. Environmental Protection Agency
Region III (3HW64)
841 Chestnut Building
Philadelphia, Pennsylvania 19107
Telephone # 215-597-2381

IX. ON-SITE AND OFF-SITE ACCESS

A. EPA and/or its authorized representatives shall have the authority to enter and freely move about all property at the Facility during the effective dates of this Order for the purposes of assuring and overseeing the performance of work under this administrative order, inter alia: interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts related to the Facility; reviewing the progress of Respondent in carrying out the terms of this Order; conducting such tests, sampling or monitoring as EPA or its Project Coordinator deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to EPA by Respondent. Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Order.

B. To the extent that work required by this Order, or by any EPA-approved Work Plan prepared pursuant hereto, must be done on property not owned or controlled by Respondent, Respondent shall use its best efforts to obtain site access agreement(s) from the present owner(s) and/or lessee(s) of such property, as appropriate, within thirty (30) calendar days of receipt of EPA approval of any Work Plan pursuant to this Order which requires work on such property. For purposes of this paragraph, "best efforts," shall include, at a minimum, but shall not be limited to: a certified letter from Respondent to the present owner(s) or lessee(s) of such property, as appropriate, requesting agreements to permit Respondent, EPA, and its authorized representatives access to such property; and b) the payment of reasonable sums of money in consideration of access. "Reasonable sums of money" means the fair market value of the right of access necessary to implement the requirements of this Order. In the event that such agreements for access are not obtained within thirty (30) calendar days after receipt of EPA approval of any Work Plan pursuant to this Order which requires work on property which is not owned or controlled by Respondent, Respondent shall notify EPA, in writing, within seven (7) calendar days of its inability to obtain such agreements, regarding both the efforts undertaken to obtain access and the inability to obtain such agreements. In the event that Respondent fails to obtain off-site access, despite the exercise of best efforts, EPA, in its discretion, may assist Respondent in obtaining off-site access for Respondent. EPA reserves the right to seek reimbursement for all costs incurred by EPA in obtaining access, including, but not limited to, attorneys fees and the amount of just compensation and costs incurred by EPA.

C. Nothing in this Order limits or otherwise affects EPA's right of access and entry pursuant to applicable law including, but not limited to, RCRA and CERCLA.

X. SAMPLING AND DATA/DOCUMENT AVAILABILITY

A. Respondent shall submit to EPA the results of all sampling and/or tests or other data generated by or on behalf of Respondent in accordance with the requirements of this Order and the Attachments appended hereto and incorporated herein.

B. Respondent shall notify EPA, in writing, at least fourteen (14) calendar days in advance of any field activities, such as well drilling, installation of equipment, or sampling. At the request of EPA, Respondent shall provide or allow EPA and/or its authorized representatives to take split or duplicate samples of all samples collected by Respondent pursuant to this Order. Nothing in this Order shall limit or otherwise affect EPA's authority to collect information and/or samples pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

C. Respondent may assert a business confidentiality claim covering all or part of any information submitted to EPA pursuant to this Order in the manner described in 40 C.F.R. § 2.203(b). Any assertion of confidentiality shall be adequately substantiated by Respondent when the assertion is made in accordance with 40 C.F.R. § 2.204(e)(4). Information subject to a confidentiality claim shall be disclosed only to the extent allowed by, and in accordance with, the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such confidentiality claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to Respondent. Respondent shall not assert any confidentiality claim with regard to any physical, sampling, monitoring or analytical data relating to this Order.

D. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal courts in actions involving the United States. If Respondent asserts such a privilege, it shall provide EPA with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the contents of the document, record, or information; and (6) the nature and basis of the privilege asserted by Respondent. However, no documents, records or information created, generated or collected pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

XI. FINANCIAL RESPONSIBILITY

1. Within thirty (30) calendar days after receipt of EPA approval of the Final (100 Percent) Cap Design Report, Respondent shall submit to EPA for approval an assurance of its financial ability to meet the current cost estimate for all Corrective Measures required pursuant to this Order, including both capital and operation and maintenance costs ("Current Cost Estimate"). Respondent shall update this assurance of its financial ability to meet the Current Cost Estimate ("Financial Assurance") annually to take into account the rate of inflation, as set forth in Paragraph 4, below. Respondent's Financial Assurance shall be in one (or a combination of) the following forms:

- a. A surety bond guaranteeing performance of the Corrective Measures;
- b. One or more letters of credit equalling the Current Cost Estimate;
- c. A trust agreement establishing a trust fund

equalling the Current Cost Estimate;

- d. A demonstration that Respondent satisfies the requirements of the financial test set forth in Paragraph 2 of this Section; or
- e. A guarantee to perform the Corrective Measures by one or more parent corporations or subsidiaries, or by one or more unrelated corporations that have a substantial business relationship with Respondent, as set forth in Paragraph 3 of this Section.

2. If Respondent seeks to demonstrate Financial Assurance through the financial test, as discussed in Subparagraph 1.d of this Section, it shall provide EPA with a letter from its chief financial officer (supported by its most recent annual audited financial statements prepared in accordance with Generally Accepted Accounting Principles ("GAAP")) certifying that Respondent has:

- a. Either a ratio of total liabilities to net worth of less than 1.5; or a ratio of the sum of net income plus depreciation, depletion and amortization, minus \$10 million, to total liabilities greater than 0.10; and
- b. Tangible net worth greater than the sum of the Current Cost Estimate for the Corrective Measures plus \$10 million; and
- c. Assets located in the United States amounting to at least 90 percent of total assets or at least six times the Current Cost Estimate for the Corrective Measures.

3. If Respondent seeks to demonstrate Financial Assurance through a guarantee by a third party pursuant to Subparagraph 1.e of this Section, Respondent shall demonstrate that the guarantor satisfies the requirements of the financial test set forth in Paragraph 2 of this Section.

4. Annually, on the anniversary of Respondent's receipt of notification of EPA approval of the Financial Assurance required in Paragraph 1 of this Section, Respondent shall submit to EPA for approval an updated form(s) of Financial Assurance which takes into account the rate of inflation. If Respondent uses the financial test or corporate guarantee pursuant to Subparagraphs 1.d or 1.e of this Section, the Current Cost Estimate for the Corrective Measures must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of the updated form(s) of Financial Assurance to EPA. The

adjustment for inflation shall be made by either recalculating the Current Cost Estimate for the Corrective Measures in current dollars or by using an inflation factor derived from the most recent annual Implicit Price Deflator for Gross Domestic Product published by the U.S. Department of Commerce in its monthly publication, Survey of Current Business. The inflation factor is derived by dividing the latest published annual Deflator by the annual Deflator for the previous year. (Both figures are currently set forth in Table 7.14 in the Survey of Current Business). The adjustment to the Current Cost Estimate for inflation is then made by multiplying the Current Cost Estimate by the latest inflation factor.

5. In the event that EPA determines that an alternative and/or supplemental Corrective Measure is necessary, Respondent shall revise the Current Cost Estimate for the Corrective Measures no later than 30 days after its receipt of notification of such EPA determination, if the alternative and/or supplemental Corrective Measure increases the cost or the expected duration of the CMI. This revision shall reflect any changes in the total number of years to perform the CMI and any changes in the estimated costs for each year of the CMI. The revised Current Cost Estimate for the Corrective Measures shall also be adjusted for inflation as specified in Paragraph 4 of this Section.

6. If Respondent determines at any time that it is unable, or reasonably expects that it will be unable, to maintain the Financial Assurance provided pursuant to this Section, Respondent shall obtain and submit to EPA for approval one (or a combination of) the other forms of Financial Assurance listed in Paragraph 1 of this Section within thirty (30) calendar days of the earlier of (a) the event that causes such inability, or (2) receipt of information that gives rise to the reasonable expectation of such inability.

7. If EPA determines at any time that the Financial Assurance provided pursuant to this Section is inadequate, Respondent shall, within thirty (30) days of its receipt of notification of such determination, obtain and present to EPA for approval one (or a combination of) the other forms of Financial Assurance listed in Paragraph 1 of this Section.

8. Respondent's inability to demonstrate financial ability to meet the Current Cost Estimate for the Corrective Measures shall not excuse performance of any activities required under this Order.

XII. RECORD PRESERVATION

Respondent shall preserve, during the pendency of this Order and for a minimum of six (6) years after its termination, all

data, records and documents in its possession, custody or control or in the possession, custody or control of its divisions, officers, directors, employees, agents, contractors, successors, and assigns which relate in any way to this Order or to hazardous waste management and/or disposal at the Facility. If, after termination of the six (6) year period described above, Respondent intends to destroy any such record, Respondent shall notify EPA at least thirty (30) calendar days prior to such destruction, and shall provide EPA with the opportunity to inspect, copy and/or take possession of any records which are not privileged, as discussed in Section X, above. Respondent shall not destroy any record to which EPA has requested access for inspection and/or copying until EPA has obtained such access or withdrawn its request for such access. Nothing in this Order shall in any way limit the authority of EPA under Section 3007 of RCRA, 42 U.S.C. Section 6927, or any other access or information-gathering authority.

XIII. PROJECT COORDINATORS

A. EPA hereby designates Vernon Butler as the EPA Project Coordinator. Respondent has designated Lynn Woodside as its Project Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of this Order. The EPA Project Coordinator will be EPA's primary designated representative at the Facility. To the maximum extent possible, all communications between Respondent and EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order, shall be directed through the Project Coordinators.

B. Respondent shall provide at least seven (7) calendar days written notice to EPA prior to changing its Project Coordinator. Respondent's legal counsel shall not serve as Respondent's Project Coordinator.

C. If EPA determines that conditions or activities at the Facility, whether or not in compliance with this Order, have caused or may cause a release or threatened release of hazardous wastes, hazardous constituents, hazardous substances, pollutants or contaminants which threaten or may pose a threat to the public health or welfare or to the environment, EPA may direct that Respondent stop further implementation of this Order for such period of time as may be needed to abate any such release or threatened release and/or to undertake any action which EPA determines is necessary to abate such release or threatened release.

D. The absence of the EPA Project Coordinator from the Facility shall not be cause for the delay or stoppage of work.

XIV. NOTIFICATION

Unless otherwise specified, reports, correspondence, approvals, disapprovals, notices or other submissions relating to or required under this Order shall be in writing and shall be sent as follows:

1. Four copies of all documents to be submitted to the EPA shall be sent to:

Vernon Butler (3HW64)
U.S. EPA Region III
841 Chestnut Building
Philadelphia, PA 19107

2. Documents to be submitted to Respondent shall be sent to:

Lynn Woodside
NGK Metals Corporation
Tuckerton Road
P.O. Box 13367
Reading, PA 19612-3367

3. One copy of each document required to be submitted to EPA shall also be sent simultaneously to:

Regional Solid Waste Manager
PADER Bureau of Waste Management
Regional Office
One Ararat Blvd.
Harrisburg, PA 17110

XV. PENALTIES FOR NONCOMPLIANCE

If Respondent fails to comply with the terms and provisions of this Order, EPA may commence a civil action for appropriate relief to require compliance and/or EPA may assess a civil penalty not to exceed \$25,000 for each day of non-compliance with this Order.

XVI. RESERVATION OF RIGHTS

A. EPA expressly reserves all rights and defenses that it may have, including the right to disapprove of work performed by Respondent pursuant to this Order, to require that Respondent correct and/or reperform any work disapproved by EPA, and to request that Respondent perform tasks in addition to those stated in the Scope(s) of Work, Work Plans, or this Order.

B. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights and remedies, both legal and equitable, including any which may pertain to Respondent's failure to comply with any of the requirements of this Order, including, without limitation, the assessment of penalties under Section 3008(h)(2) of RCRA, 42 U.S.C. § 6928(h)(2). This Order shall not be construed as a covenant not to sue, or as a release, waiver or limitation of any rights, remedies, powers and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory or common law authority.

C. Respondent's compliance with the terms of this Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state or federal laws and regulations.

D. The issuance of this Order and Respondent's compliance with the same shall not limit or otherwise preclude the EPA from taking additional enforcement action pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), or any other authority, should EPA determine that such action is warranted.

E. This Order is not intended to be, nor shall it be construed as, a permit. This Order does not relieve Respondent of any obligation to obtain and comply with any local, state, or federal permit or approval.

F. EPA reserves the right to perform any portion of the work required herein or any additional work and response/corrective actions it deems necessary to protect human health or welfare or the environment. EPA may exercise its authority under RCRA, CERCLA and any other authority to undertake or require the performance of response actions at any time. EPA reserves the right to seek reimbursement from Respondent for costs incurred by the United States in connection with any such work required herein, additional work, or response actions. Notwithstanding compliance with the terms of this Order, Respondent is not released from liability, if any, for the costs of any such work required herein, additional work, or response actions taken by EPA.

G. EPA reserves whatever rights it may have under CERCLA or any other law, or in equity, to recover from Respondent any costs incurred by EPA in overseeing the implementation of this Order.

H. Nothing in this Order, or in EPA's approval of the CMI Work Plan, CM Design Reports, or of any other Submission, shall constitute a warranty or representation of any kind by EPA that Respondent's compliance with such approved documents and/or the full performance of the CM will achieve the media cleanup standards set forth in the RCRA ROD.

XVII. OTHER CLAIMS

Nothing in this Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership, corporation or other entity for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Facility.

XVIII. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to this Order shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. Respondent shall obtain or require its authorized representatives to obtain all permits and approvals necessary under such laws and regulations.

XIX. NON-LIABILITY OF THE UNITED STATES

Neither EPA nor the United States, by issuance of this Order, assumes any liability for any acts or omissions by Respondent or by Respondent's employees, agents, successors, assigns, contractors, or consultants in carrying out any action or activity pursuant to this Order, nor shall EPA or the United States be held as a party to any contract entered into by Respondent, Respondent's employees, agents, successors, assigns, contractors, or consultants in carrying out activities pursuant to this Order.

XX. AMENDMENTS/INCORPORATION

A. This Order may be amended in writing by EPA.

B. Any reports, plans, specifications, schedules, other submissions and attachments required by this Order are, upon written approval by EPA, incorporated into this Order. Any noncompliance with such EPA-approved reports, plans, specifications, schedules, submissions and attachments shall be considered a violation of this Order and shall subject Respondent to the statutory penalty provisions included in Section XV, "PENALTIES FOR NONCOMPLIANCE."

C. Minor modifications in the studies, techniques, procedures, designs or schedules utilized in carrying out this Order and necessary for the completion of the project may be made

in writing by the EPA Project Coordinator.

D. No informal advice, guidance, suggestions, or comments by EPA regarding reports, plans, specifications, schedules, and any other written submission by Respondent shall be construed as relieving Respondent of its obligation to obtain written approval, if and when required by this Order.

XXI. SEVERABILITY

If any provision or authority of this Order or the application of this Order to any party or circumstance is held by any judicial or administrative authority to be invalid, the application of such provision to other parties or circumstances and the remainder of this Order shall not be affected thereby and shall remain in full force.

XXII. TERMINATION AND SATISFACTION

The provisions of this Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Order, including any additional tasks determined by EPA to be required pursuant to this Order, have been satisfactorily completed. This notice shall not, however, terminate Respondent's obligation to comply with any continuing obligations hereunder including, but not limited to, Sections XII ("RECORD PRESERVATION"), XVI ("RESERVATION OF RIGHTS"), XVII ("OTHER CLAIMS"), XVIII ("OTHER APPLICABLE LAWS"), XIX ("NON-LIABILITY OF UNITED STATES") and XXIV ("ATTORNEY'S FEES").

XXIII. SURVIVABILITY/PERMIT INTEGRATION

A. Subsequent to the issuance of this Order, a RCRA permit may be issued to the Facility incorporating the requirements of this Order by reference into the permit.

B. No requirement of this Order shall terminate upon the issuance of a RCRA permit unless such requirement is expressly replaced by a requirement in the permit.

XXIV. ATTORNEY'S FEES

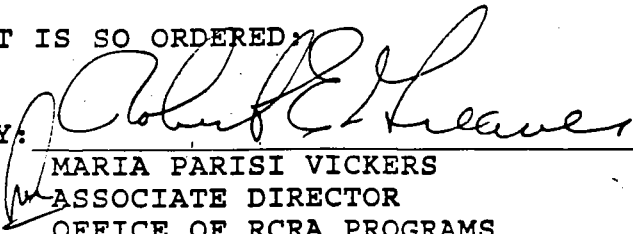
Respondent shall bear its own costs and attorney's fees

XXV. FINAL/EFFECTIVE DATE

In accordance with 40 C.F.R. Section 24.20, this Final Administrative Order is a final agency action that is effective upon filing and service. This action is not appealable to the Administrator.

IT IS SO ORDERED:

BY:



MARIA PARISI VICKERS
ASSOCIATE DIRECTOR
OFFICE OF RCRA PROGRAMS
U.S. ENVIRONMENTAL PROTECTION
AGENCY - REGION III

DATE:

June 29, 1994