Change in Compliance
Dates attached

U.S. Environmental Protection Agency

RCRA SECTION 3008(h) CONSENT ORDER

for

CORRECTIVE MEASURES

IMPLEMENTATION TECHALLOY

COMPANY, INC.

U.S. EPA I.D. #ILD 005 178 975

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I. CORRECTIVE MEASURES IMPLEMENTATION PROGRAM - SCOPE OF WORK

II. ACKNOWLEDGMENT OF TERMINATION

ABBREVIATIONS AND ACRONYMS

AOC

CAP

CERCL

A

CFR

CMI

CMS

DOC

C

DQO

EPA

HWM

U IM

MCL

mg/kg

mg/l

NPDE

S PA

ppm

ppb QAPP QA/QC

Area of Concern	Regulations Corrective Measure
	Implementation Corrective Measure Study
Corrective Action Plan	Description of Current Conditions Data Quality
	Objective
Comprehensive Environmental Response, Compensation, and Liability Act	United States Environmental Protection Agency
	Hazardous Waste Management Unit
	Interim Measures
	Maximum Contaminant Level
	milligram per kilogram milligram
C	per liter
o	National Pollution Discharge Elimination System
d	Preliminary Assessment parts
e	per million
	parts per billion
o	Quality Assurance Project Plan
f	Quality Assurance/Quality Control

F

e

d

e

r

a

l

RA	Release Assessment
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
SOW	Scope of Work
SWMU(s)	Solid Waste Management Unit(s)
g/kg	micrograms per kilogram g/l
	micrograms per liter
U.S.C.	United States Code
U.S. EPA	United States Environmental Protection Agency
VSI	Visual Site Inspection

UNITED STATES ENVIRONMENTAL PROTECTION
AGENCY REGION 5

IN THE MATTER OF:	ADMINISTRATIVE ORDER ON CONSENT FOR CORRECTIVE MEASURES IMPLEMENTATION
TECHALLOY COMPANY, INC. 6509 OLSON ROAD UNION, ILLINOIS 60180	U.S. EPA Docket No. **tiUiiP V H 007 93** *su-s-qq-008*
US EPA ID NO. ILD 005 178 975	Proceeding under Section 3008(h) of the Resource Conservation and Recovery Act, as amended, 42 u.s.c. § 6928(h)
RESPONDENT.	

I. JURISDICTION

A. This ADMINISTRATIVE ORDER ON CONSENT (Order) for Corrective Measures Implementation is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency (U.S. EPA) by Section 3008(h) of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid waste Amendments of 1984, 42 U.S.C. §6928(h). The authority vested in the Administrator to issue this Order has been delegated to the Chief of the Enforcement and Compliance Assurance Branch of the Waste, Pesticides and Toxics Division, Region 5, U.S. EPA.

B. This Order is issued to Techalloy Company, Inc. (Respondent) the owner and operator of a facility at 6509 Olson Road, Union, Illinois (the Facility).

C. Respondent consents to and agrees not to contest U.S. EPA's jurisdiction to issue this Order and to enforce its terms. Further, Respondent will not contest U.S. EPA's jurisdiction to:

1. Compel compliance with this Order in any subsequent enforcement proceedings, either administrative or judicial;
2. Require Respondent's full or interim compliance with the terms of this Order; or
3. To impose sanctions for violations of this Order.

II. DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Order which are defined in RCRA or in regulations promulgated under RCRA shall have the definitions given to them in RCRA or in such regulations.

Acceptable In the phrase "In a manner acceptable to U.S. EPA .. " shall mean that submittals or completed work meet the terms and

conditions of this Order, attachments, scopes of work, approved workplans and/or U.S. EPA's written comments and guidance documents.

Additional Work shall mean any activity or requirement that is not expressly covered by this Order or its attachments but is determined by U.S. EPA to be necessary to fulfill the purposes of this Order as presented in Section III: Statement of Purpose.

Administrative Record shall mean the record compiled and maintained by U.S. EPA supporting this Order.

Area of Concern shall mean.any area of the Facility under the control or ownership of the owner or operator where a release to the environment of hazardous wastes or hazardous constituents has occurred, is suspected to have occurred, or may occur, regardless of the frequency or duration of the release.

CERCLA shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C.
§§ 9601, et seg.

Comply or compliance may be used interchangeably and shall mean the performance of work required by this Order of a quality which

is acceptable to and approvable by U.S. EPA and in the manner and time specified in this Order or any modification thereof, its attachments or any modification thereof, or written U.S. EPA directives. Respondent must meet both the quality and timeliness components of a particular requirement to be considered in compliance with the terms and conditions of this Order.

Contractor shall include any contractor, subcontractor, consultant or laboratory retained to conduct or monitor any portion of the work performed pursuant to this Order.

Corrective measures shall mean those measures or actions necessary to control, prevent, or mitigate the release or potential release of hazardous waste or hazardous constituents into the environment.

Corrective Measures Implementation or CMI shall mean those activities necessary to initiate, complete, monitor, and maintain the remedies U.S. EPA has selected or may select to protect human health and/or the environment from the release or potential release of hazardous wastes, or hazardous constituents, into the environment from the Facility. The CMI requirements are detailed

in Section VIII of the Order and the CMI Scope of Work included as Attachment I.

Corrective Measures Study or CMS shall mean the investigation and evaluation of potential remedies which will protect human health and/or the environment from the release or potential release of hazardous wastes, or hazardous constituents, into the environment from the Facility.

Data Quality Objectives shall mean the qualitative or quantitative statements derived from the Data Quality Objective process that clarify study objectives, define the appropriate type of data, and specify tolerable levels of potential decision errors that will be used as the basis for establishing the quality and quantity of data needed to support decisions.

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

EPA or U.S. EPA shall mean the United States Environmental Protection Agency, and any successor Departments or Agencies of the United States.

Facility shall mean all contiguous property under the control of the owner and/or operator.

Hazardous Constituents shall mean those constituents listed in Appendix VIII to 40 CFR Part 261 or any constituent identified In Appendix IX to 40 CFR Part 264.

Hazardous Waste shall mean hazardous waste as defined in Section 1004(5) of RCRA or 40 CFR 260.10. This term includes hazardous constituents as defined above.

Hazardous Waste Management Unit or HWMU shall mean a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there IS significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system, and a container storage area. A container alone does not constitute a hazardous waste management unit; the

unit includes containers and the land or pad upon which they are placed.

Innovative Treatment Technologies shall mean those technologies for treatment of soil, sediment, sludge, and debris other than incineration or solidification-stabilization and those technologies for treatment of groundwater contamination that are alternatives to pumping with conventional treatments like air stripping and ultraviolet light oxidation.

Interim Measures or IM shall mean those actions, which can be initiated in advance of implementation of the final corrective action for the Facility, to achieve the goal of stabilization. Interim Measures initiate cleanup at the Facility and control or eliminate the release or potential release of hazardous wastes at or from the Facility.

RCRA Facility Investigation or RFI shall mean the investigation and characterization of the source(s) of contamination and the nature, extent, direction, ra e, movement, and concentration of the source(s) of contamination and releases of hazardous waste, including hazardous constituents, that have been or are likely to be released into the environment from the Facility.

Receptors shall mean those humans, animals, or plants and their habitats which are or may be affected by releases of hazardous waste from or at the Facility.

Release shall mean any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of hazardous wastes or hazardous constituents into the environment.

Scope of Work or SOW shall mean the outline of work Respondent must use to develop all workplans and reports required by this Order as set forth in this Order and its Attachments. All SOW Attachments and modifications or amendments thereto are incorporated into this Order and are an enforceable part of this Order.

Solid Waste Management Unit oSWMU shall mean any discernible unit at which solid wastes have been placed at any time irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a Facility where solid wastes have been routinely and systematically released.

Stabilization shall mean controlling or abating immediate threats to human health and/or the environment from releases and/or preventing or minimizing the spread of contaminants while long- term corrective measures alternatives are being evaluated or implemented.

Submittal shall include any workplan, report, progress report, or any other written document Respondent is required by this Order
to send to U.S. EPA.

Violations of this Order shall mean those actions or omissions, failures or refusals to act by Respondent that result in a failure to meet the terms and conditions of this Order or its attachments.

Work or Obligation shall mean any activity Respondent must perform to comply with the requirements of this Order and its attachments.

Workplans shall mean the detailed plans prepared by Respondent to satisfy the requirements of the corresponding Scope of Work or
the requirements presented in Section VIII: Work to be Performed.

III. STATEMENT OF PURPOSE

In entering into this Order, the mutual objectives of U.S. EPA and Respondent are:

A. To implement the corrective measures selected by U.S. EPA at the Facility; and

B. To perform any other activities necessary to correct or evaluate actual or potential threats to human health and/or the environment resulting from the release or potential release of hazardous waste at or from the Facility.

IV. PARTIES BOUND

A. This Order shall apply to and be binding upon U.S. EPA, Respondent and its officers, directors, employees, agents, successors and assigns, heirs, trustees, receivers, and upon all persons, including but not limited to contractors, acting on behalf of Respondent.

B. No change in ownership or corporate or partnership status relating to the Facility will in any way alter Respondent's responsibility under this Order. Any conveyance of title, easement, or other interest in the Facility, or a portion of the Facility, shall not affect Respondent's obligations

under this Order. Respondent will be responsible for and liable for any failure to carry out all activities required of Respondent by the terms and conditions of the Order, regardless of Respondent's use of employees, agents, or contractors to perform any such tasks.

C. Respondent shall provide a copy of this Order to all contractors and laboratories retained to conduct or monitor any portion of the work performed pursuant to this Order within fourteen (14) days of the issuance of this Order or the retention of such person(s), whichever occurs later, and shall condition all such contracts on compliance with the terms of this Order.

D. Respondent shall give written notice of this Order to any successor in interest prior to transfer of ownership or operation of the Facility or a portion thereof and shall notify U.S. EPA In writing within thirty (30) days prior to such transfer.

E. Respondent agrees to undertake all actions required by the terms and conditions of this Order, including any portions of this Order incorporated by reference.

F. Respondent waives any rights to request a hearing on this matter pursuant to §3008(b) of RCRA and 40 CFR Part 24, and consents to the issuance of this Order without a hearing pursuant to §3008(b) of RCRA as a Consent Order issued pursuant to §3008(h) of RCRA.

V. FINDINGS OF FACT

A. Respondent is a company doing business in the State of Illinois and is a person as defined in Section 1004(15) of RCRA, 42 U.S.C. §6903(15), and 40 CFR 260.10.

B. Respondent is a generator of hazardous waste and an owner and/or operator of a hazardous waste management facility located at 6509 Olson Road, Union, Illinois. Respondent engaged in treatment, storage, or disposal of hazardous waste at the Facility subject to interim status requirements of 40 CFR Part 265.

C. Respondent owned and/or operated the Facility as a hazardous waste management facility on or after November 19, 1980.

D. Pursuant to Section 3010 of RCRA, Respondent notified U.S. EPA of its hazardous waste activity. In its notification dated August 15, 1980, Respondent identified itself as a

generator of hazardous waste and an owner/operator of a treatment, storage, and disposal facility for hazardous waste.

E. In its Part A permit application dated January 18, 1988, Respondent identified itself as handling the following hazardous wastes at the Facility:

1. Hazardous waste exhibiting the characteristic of corros vity (U.S. EPA Hazardous Waste Code No. D002);
2. Hazardous waste exhibiting the characteristic of reactivity (U.S. EPA Hazardous Waste Code No. D003)

F. A Preliminary Assessment/Visual Site Inspection (PA/VSI) of Respondent's Facility, conducted under U.S. EPA authority on November 8, 1991, revealed the following Solid Waste Management Units: (1) hazardous wastewater treatment facility (acid treatment unit); (2) wire slag disposal area; (3) copper cyanide waste destruction tanker unit (4) BG-5 oil drums; (5) concrete evaporation pad; (6) spent acid holding pond; and (7) plating wastewater disposal area. The PA/VSI also identified an area of Concern, the acid tankroom (acid pits). The hazardous wastewater treatment facility,

the copper cyanide waste destruction unit, and the acid tank room were determined to be hazardous waste management units.

G. Investigations in 1990 and 1991 revealed that groundwater underlying Respondent's Facility was contaminated with volatile organic compounds and that the groundwater contamination extended approximately 4000 feet northwest of the Facility.

H. On January 27, 1993, U.S. EPA issued to Respondent an Administrative Order on Consent, pursuant to Section 3008{h) of RCRA. The January 27, 1993, Order required Respondent

to: implement selected Interim Measures; complete a RCRA Facility Investigation (RFI); and perform a Corrective Measures Study (CMS). On November 6, 1997, Respondent was ordered by U.S. EPA to upgrade the groundwater recovery system that had been installed as an interim measure, in order to increase the size of the capture zone. Respondent installed a second groundwater extraction well which became operational in March 1999. The groundwater recovery system has been demonstrated to create the capture zone required by U.S. EPA, as depicted in Exhibit C of this Order.

I. U.S. EPA issued a Statement of Basis which was made available to the public for a forty-five (45)day comment period from February 10, 1998, to March 30, 1998.

J. On May 26, 1998, the Regional Administrator of Region V signed a RCRA Final Decision for the Facility. The Final Decision prescribes the following corrective measures:

1. institutional controls consisting of a Facility deed restriction, and a county restriction on water well drilling permits;
2. continuance of the private well sampling program;
3. implementation of soil stabilization technology to address metal contaminants;
4. continued operation of an existing off-site groundwater recovery system (which has been upgraded since issuance of the RCRA Final Decision);
5. implementation of a focused air sparge/soil vapor extraction system to treat soils and groundwater contaminated with volatile organic compounds;
6. groundwater monitoring.

VI. **CONCLUSIONS OF LAW AND DETERMINATIONS** Based on the Findings of Fact set forth above and after consideration of the Administrative Record, the Chief of the

Enforcement and Compliance Assurance Branch of the Waste, Pesticides and Taxies Division, Region 5, U.S. 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. § 6903(15);

B. Respondent is the owner or operator of a Facility that is operating under interim status subject to Section 3005(e) of RCRA, 42 U.S.C. § 6925(e);

C. Certain wastes found at the Facility are hazardous wastes pursuant to Sections 1004(5) and 3001 of RCRA, 42 U.S.C. §§ 6903(5) and 6921, an40 CFR Part 261;

D. There is or has been a release of hazardous wastes into the environment from the Facility; and

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

VII. PROJECT COORDINATOR

A. Within fifteen (15)days of the effective date of this Order, U.S. EPA and Respondent shall each designate a Project Coordinator. Respondent shall notify U.S. EPA in writing of the Project Coordinator it has selected. Each Project Coordinator shall be responsible for overseeing the implementation of this Order and for designating a person to act in their absence. U.S. EPA's Project Coordinator will be U.S. EPA's designated representative for the Facility. To the maximum extent practicable, all communications between Respondent and U.S. EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to this Order shall be directed through the Project Coordinators.

B. Respondent may change its Project Coordinator but agrees to provide at least fourteen (14)days written notice prior to changing its Project Coordinator. Respondent shall notify U.S. EPA within five (5)days of any anticipated change in its Project Coordinator.

C. The absence of the U.S. EPA Project Coordinator from the Facility shall not be cause for the stoppage of work.

VIII. WORK TO BE PERFORMED

A. Pursuant to Section 3008(h) of RCRA, Respondent agrees to and is hereby ordered to perform the acts specified in this section, in the manner and by the dates specified herein. All work and/or submittals required by this Order are subject to U.S. EPA approval in accordance with Section IX: Agency Approvals/Proposed Contractor.

All work undertaken pursuant to this Order shall be performed in a manner consistent with, at a minimum: the attached Scope of Work; all U.S. EPA-approved workplans or submittals; RCRA and other applicable Federal laws and their implementing regulations; and applicable U.S. EPA guidance documents.

B. Respondent specifically and expressly agrees to timely and adequately apply for any and all permits or authorizations required for work conducted pursuant to this Order.

Delays

In obtaining any required approval or permit from U.S. EPA or other entities that result despite Respondent's complete, timely and appropriate submission of all information and documentation required for approval, including applications for permits, within a time frame that would allow the work to proceed in a manner contemplated by the schedule in the

Order, Final Design, and/or workplans, are subject to

Section XVII: Force Majeure and Excusable Delay.

C. All work undertaken pursuant to this Order shall include and be performed in a manner consistent with, at a minimum: the Scope of Work for the Corrective Measures Implementation (CMI) Program set forth in Attachment I, the approved Final Design, any workplans, and other submittals including plans and schedules for additional work required pursuant to paragraph Q of this Section; the Quality Assurance Project Plan; the Health and Safety Plan; and applicable U.S. EPA guidance documents.

D. Private Wells

1. Within thirty (30)days of the effective date of this Order, Respondent shall make an offer in writing to each of the property owners identified in Exhibit A to provide the property with connection to the city water supply system of Union, Illinois. If a property owner accepts such offer, within one hundred and eighty (180) days of receiving that owner's acceptance 1n writing Respondent shall provide for connection to the city water supply system and, if the owner permits,

also shall arrange for the abandonment of the well at the property. The wells shall be abandoned and closed pursuant to local and State regulations.

2. For any property identified in Exhibit A as to which the owner refuses connection to the city water supply system, and also for the property identified in Exhibit B, Respondent shall perform quarterly sampling and analysis of the residential wells in accordance with

the Private Well Sampling Plan (PWSP)dated May 1993.

Respondent shall provide the sampling results to the property owners and to U.S. EPA within fifteen (15) days of receipt of the sampling results. Quarterly sampling of the residential wells shall continue until U.S. EPA notifies Respondent in writing that sampling and analysis of some or all of the wells is no longer required, or that the sampling schedule has been revised. If U.S. EPA determines that additional residential wells in or near the City of Union require sampling pursuant to the PWSP, U.S. EPA will notify Respondent of this determination and specify the sampling schedule for those additional wells.

3. If in the future a property owner identified in Exhibit A who previously refused connection to the city water supply advises Respondent or U.S. EPA that he or she wishes to be connected to the municipal water supply, within one hundred and eighty (180)days of such notification Respondent shall provide that property with connection to the city water supply system, and if the property owner consents also shall provide for the proper abandonment of the well on that property.

E. Respondent shall operate the upgraded Groundwater Recovery System so that it continues to create the capture zone as depicted in Exhibit C of this Order.The upgraded Groundwater Recovery System shall remain operational until the performance standards as specified in the approved Final Design are achieved. Th· performance standards shall be

protective of human health and the environment.

F. Soi Stabilization

1. Respondent shall implement soil stabilization treatment at the Facility in accordance with TASK II of Attachment I. Pursuant to 40 CFR 264.552, the general area to undergo soil stabilization is designated a

Corrective Action Management Unit (CAMU), or its regulatory equivalent should relevant RCRA rule changes occur. If the effective date of this Order pre-dates a June 15 date, the soil stabilization shall be completed within one-hundred and fifty (150) days of the effective date of this Order. If the effective date of this Order post-dates a June 15 date, the soil stabilization shall be completed by September 15 of the following year. During the bench-scale studies, Respondent shall submit to U.S. EPA weekly reports which summarizes the activities and include all test data developed during the reporting period. The soil stabilization treatment shall achieve the performance standards given at B.5 of Task II, Attachment I, unless U.S. EPA approves in writing alternate performance standards. Soils that do not meet the treatment performance standards shall be disposed off-site pursuant to applicable State and Federal regulations. Proper dust control procedures shall be employed throughout implementation of the soil stabilization treatment. Within forty-five (45) days of completion of the soil stabilization treatment, Respondent shall

provide to U.S. EPA a report which documents the completion of the soil stabilization treatment.

2. Respondent shall install the asphalt cap for the soil stabilized area (CAMU)in accordance with Task II of Attachment I. If the soil stabilization treatment is completed before a September 15 date, the asphalt cap installation shall be completed within sixty (60)days of completion of the soil stabilization. If the soil stabilization is completed after a September 15 date, the asphalt cap installation shall be completed by June 15 of the following year. Respondent shall notify U.S. EPA of completion of the asphalt cap installation within fifteen (15)days of such completion.

3. Pursuant to 40 CFR 264.552(e)(4), and in accordance with TASK II and TASK III of Attachment I, Respondent shall complete closure for the CAMU and perform post- closure care for the CAMU.

G. Upon completion of the asphalt cap installation, Respondent shall revise the December 17, 1997, Facility deed restriction to require proper maintenance of the asphalt cap and the chain link fence at the Facility. The revised deed

shall be recorded within sixty (60)days of completion of the asphalt cap installation.

H. Respondent shall collect additional field data as needed, perform a pilot study and preliminary testing as needed to support a design for the air sparge/soil vapor extraction (AS/SVE) system. Within one hundred and twenty (120) days of completion of the asphalt pad installation, Respondent shall submit to U.S. EPA a Draft Final Design for corrective measures which includes the elements of TASK III of Attachment I.

I. Within forty-five (45)days of receipt of U.S. EPA's comments on the Draft Final Design, Respondent shall submit a revised Final Design that fully addresses U.S. EPA's comments.

J. Within one-hundred and twenty (120) days of approval of the Final Design by U.S. EPA, the AS/SVE system shall be fully operational and shall continue to operate until the performance standards are obtained as specified in the approved Final Design. The performance standards shall be protective of human health and the environment.

K. Respondent shall perform sampling and analysis of monitoring wells in accordance with the specifications provided in an approved Final Design.

L. Pursuant to Illinois Administrative Code 725 Subpart G, Respondent shall complete RCRA closure of the hazardous waste management units: {1) acid treatment unit; (2) acid pits; (3) copper cyanide destruction tanker unit. Nothing herein shall be construed to prohibit, after closure of the acid pits, the operation of the acid pits in accordance with the requirements applicable to generators who accumulate waste in tanks or containers.

M. Respondent acknowledges and agrees that nothing in this Order constitutes a warranty or representation of any kind by U.S. EPA that compliance with the work requirements set forth in the Final Design or Scope of Work of Attachment I will achieve the performance standards. Respondent's compliance with the work requirements shall not foreclose U.S. EPA from seeking compliance with all terms and conditions of this Order, including, but not limited to, achievement of the applicable performance standards.

N. If U.S. EPA concludes the work or any portion thereof has not been completed in accordance with this Order, U.S. EPA will notify Respondent in writing of the activities necessary to complete the work. Within thirty (30)days of such notice, Respondent shall submit a schedule for the performance of such activities to U.S. EPA for approval. Respondent shall perform all activities described in the notice in accordance with the U.S. EPA-approved specifications and schedules established therein.

O . If Respondent concludes that the performance standards specified in the approved Final Design have been attained to the degree that the operation of the AS/SVE System and/or the Groundwater Recovery system may be modified as prescribed in the Final Design, prior to any operational modification Respondent hall provide forty-five (45)days advance notification of such modification in writing to U.S. EPA. Sufficient data to support the operational modification shall be provided with the notification.

P. Interim Measures

1. In the event Respondent identifies an immediate or potential threat to human health and/or the

environment, discovers new releases or potential releases of hazardous waste or hazardous constituents, or discovers new solid waste management units not previously identified, at or from the Facility, Respondent shall notify the U.S. EPA Project Coordinator orally within forty-eight (48)hours of discovery and notify U.S. EPA in writing within seven (7)days of such discovery summarizing the immediacy and magnitude of the potential actual threats to human health or the environment. Upon written request by U.S. EPA, Respondent shall submit to U.S. EPA an Interim Measures (IM)Workplan and implementation schedule in accordance with the schedule and Scope of Work established by U.S. EPA. If U.S. EPA determines that immediate action is required, the U.S. EPA Project Coordinator may orally authorize Respondent to act prior to U.S. EPA's receipt and/or approval of the IM Workplans. Respondent shall implement the IM Workplan as approved by U.S. EPA.

2. If U.S. EPA identifies an immediate or potential threat to human health or the environment, discovers new releases of hazardous waste or hazardous constituents,

or discovers new solid waste management units not previously identified, U.S. EPA will notify Respondent in writing. Within thirty (30) days of receiving U.S. EPA's written notification, Respondent shall submit to U.S. EPA an IM Workplan, in accordance with the schedule and IM Scope of Work established by U.S. EPA, that identifies interim measures which will mitigate the threat. If U.S. EPA determines that immediate action is required, the U.S. EPA Project Coordinator may orally require Respondent to act prior to Respondent's receipt of U.S. EPA's written notification.

Respondent shall implement the IM Workplan as approved by U.S. EPA.

3. All IM Workplans shall ensure that the interim measures are designed to mitigate all immediate or potential threats to human health or the environment, and should be consistent with the objectives of, and contribute to the performance of, the long-term remedy that is required at the Facility.

Q. Additional Work

1. U.S. EPA may determine or Respondent may propose that certain tasks, including but not limited to inves- tigatory work, engineering evaluation, design/ construction, or procedure/methodology modifications, are necessary in addition to or in lieu of the tasks included in any U.S. EPA-approved work plan or submittal, when such additional work is necessary to meet the purposes set forth in Section III: Statement of Purpose.
2. U.S. EPA will notify Respondent in writing and specify the basis for its determination that additional work is necessary. Within thirty (30)days after receipt of such determination, Respondent shall have the opportunity to meet or confer with U.S. EPA to discuss the additional work.
3. If required by U.S. EPA, Respondent shall submit for U.S. EPA approval a workplan for the additional work. U.S. EPA shall specify the contents of such workplan. Such workplan shall be submitted within sixty (60) days of receipt of U.S. EPA's determination that additional work is necessary, or according to an alternative schedule by U.S. EPA.

4. Upon approval of a workplan by U.S. EPA, Respondent shall implement it in accordance with the schedule and provisions contained therein.

IX. AGENCY APPROVALS/PROPOSED CONTRACTOR

A. Agency Approvals

1. U.S. EPA will provide Respondent with its written approval, approval with conditions and/or modifications, disapproval, or disapproval with comments for any workplan, report (except progress reports), specification, or schedule submitted pursuant to or required by this Order. U.S. EPA will provide a statement of reasons for any approval with conditions and/or modifications, disapproval, or disapproval with comments.

2. Within forty-five (45)days of receipt of U.S. EPA's disapproval, or disapproval with comments, Respondent shall revise and submit an approvable workplan, report, specification, or schedule in accordance with U.S. EPA's written comments.

3. Any disapproval or disapproval with comments of a revised and resubmitted workplan, report,

specification, or schedule shall be deemed a violation of this Order and subject Respondent to the stipulated penalties provision found at Section XV.A.2 unless waived by U.S. EPA.

4. Upon receipt of U.S. EPA's written approval or approval with conditions and/or modifications, Respondent shall commence work and implement any such workplan in accordance with the schedule and provisions contained therein and U.S. EPA's written directions thereon.

5. Any U.S. EPA-approved report, workplan, specification, or schedule shall be deemed incorporated into this Order. Prior to U.S. EPA's written approval, no workplan, report, specification, or schedule shall be construed as approved and final. Oral advice, suggestions, or comments given by U.S. EPA representatives will not constitute an official approval, nor shall any oral approval or oral assurance of approval be considered as binding.

B. Proposed Contractor

1. All work performed pursuant to this Order shall be under the direction and supervision of a professional

engineer, hydrologist, geologist, or environmental scientist with expertise in hazardous waste or contaminated soil and groundwater site cleanup. Respondent's contractor shall have the technical expertise sufficient to adequately perform all aspects of the work for which it is responsible.

2. Respondent shall notify U.S. EPA in writing of the *name*, title, and qualifications of the principal engineer, hydrologist, geologist, or environmental scientist to be used in carrying out the terms of this Order within fourteen (14)days of the effective date of this Order.

3. Respondent shall identify whether any contractor is on the List of Parties Excluded for Federal Procurement or Non-Procurement Programs. U.S. EPA reserves the right to disapprove Respondent's contractor at any time during the period that the Order is effective.

4. If U.S. EPA disapproves a contractor, then Respondent must, within thirty (30) days of receipt from U.S. EPA of written notice of disapproval, notify U.S. EPA in writing of the *name*, title and qualifications of its replacement.

X. QUALITY ASSURANCE

A. Respondent shall follow U.S. EPA guidance for sampling and analysis. Submittals shall contain quality assurance/ quality control (QA/QC)and chain of custody procedures for all sampling, monitoring, and analytical activities.

B. The names, addresses, and telephone numbers of the analytical laboratories Respondent proposes to use must be specified in the applicable submittals.

C. All workplans or submittals required under this Order shall include data quality objectives for each data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended uses.

D. Respondent shall monitor its contractors and their work to ensure that high quality data are obtained.Respondent shall ensure that laboratories it uses perform analyses according to the latest approved edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW- 846 Third Edition inclusive of Final updates I, II, IIa, IIb, III, and any subsequent updates), or other methods deemed satisfactory to U.S. EPA. If methods other than U.S. EPA methods are to be used, Respondent shall specify all such protocols in the applicable submittal.

E. U.S. EPA may reject any data that does not meet the requirements of the approved workplan or submittal, or U.S. EPA analytical methods, and may require re-sampling and additional analyses.

F. Respondent shall ensure that laboratories it uses for analyses participate in a QA/QC program equivalent to that which is followed by U.S. EPA.

G. U.S. EPA may conduct a performance and QA/QC audit of the laboratories chosen by Respondent before, during, or after sample analyses.Upon request by U.S. EPA, Respondent shall have its laboratory perform analyses of samples provided by U.S. EPA to demonstrate laboratory performance. If the audit reveals deficiencies in a laboratory's performance or QA/QC, re-sampling and additional analyses may be required.

XI. SAMPLING AND DATA/DOCUMENT AVAILABILITY

A. Respondent shall submit to U.S. EPA, upon request, the results of all sampling and/or tests or other data generated by Respondent or its agents or contractors pursuant to this Order.

B. Notwithstanding any other provisions of this Order, the United States retains all of its information gathering and inspection authorities, including the authority to bring enforcement actions related thereto, under RCRA, CERCLA, and any other applicable statutes or regulations.

C. Respondent shall notify U.S. EPA in writing at least fourteen (14)days prior to beginning each separate phase of field work approved under any submittal required by this Order.

D. If Respondent believes it must commence emergency field activities without delay, Respondent may seek emergency telephone authorization from the U.S. EPA Project Coordinator or, if the U.S. EPA Project Coordinator is unavailable, his or her Section Chief, to commence such activities immediately.

E. At the request of U.S. EPA, Respondent shall provide or allow U.S. EPA or its authorized representatives to take split or duplicate samples of all samples collected by Respondent pursuant to this Order. Similarly, at the request of Respondent, U.S. EPA shall allow Respondent or its authorized representatives to take split or duplicate samples of all samples collected by U.S. EPA under this Order.

F. Respondent may assert a business confidentiality claim covering all or part of any information submitted to U.S. EPA pursuant to this Order. Any assertion of confidentiality must be accompanied by information that satisfies the items listed in 40 CFR 2.204(e)(4) or such claim shall be deemed waived. Information determined by U.S. EPA to be confiden ial shall be disclosed only to the extent permitted by 40 CFR Part 2.

G. If no confidentiality claim accompanies the information when it is submitted to U.S. EPA, the information may be made available to the public by U.S. EPA without further notice to Respondent.

H. Respondent agrees not to assert any confidentiality claim with regard to any physical or analytical data.

XII. ACCESS

A. U.S. EPA, its contractors, employees, and/or any duly designated representatives are authorized to enter and freely move about the Facility as necessary to fulfill the purposes of this Order, including inter alia:

1. Interviewing Facility personnel and contractors;
2. Inspecting records, operating logs, and contracts related to the Facility;
3. Reviewing the progress of Respondent in carrying out the terms of this Order;
4. Conducting such tests, sampling, or monitoring as U.S. EPA deems necessary;.
5. Using a camera, sound recording, or other documentary type equipment; and
6. Verifying the reports and data submitted to U.S. EPA by Respondent.

B. Respondent shall provide U.S. EPA and its representatives access at all reasonable times to the Facility and, subject

to paragraph C below, to any other property to which access is required for implementation of this Order. Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Order and that are within the possession or under the control of Respondent or its contractors.

C. To the extent that work being performed pursuant to this Order must be done beyond the Facility property boundary, Respondent shall use its best efforts to obtain access agreements necessary to complete work required by this Order from the present owner(s) of such property within thirty (30)days of the date that the need for access becomes known. Best efforts as used in this paragraph shall include, at a minimum, a certified letter from Respondent to the present owner(s) of such property requesting access agreement(s) to permit Respondent and its authorized representatives access to such property, and the payment of reasonable compensation in consideration of granting access. Any such access agreement shall provide for access by U.S. EPA and its representatives. Respondent shall ensure that

U.S. EPA's Project Coordinator has a copy of any access agreements.

D. In the event that agreements for access are not obtained within thirty (30)days of approval of any workplan or submittal for which access is required, Respondent shall notify U.S. EPA in writing within fourteen (14)days thereafter of both the efforts undertaken to obtain access and the failure to obtain access agreements.

E. U.S. EPA may, in its discretion, assist Respondent in obtaining access. In the event U.S. EPA obtains access, Respondent shall undertake U.S. EPA-approved work on such property.

F. Respondent agrees to indemnify the United States as provided in Section XXI: Indemnif.ication of the United States Government, for any and all claims arising from activities
on such property.

G. Nothing in this section limits or otherwise affects U.S.
EPA•s right of access and entry pursuant to applicable law, including RCRA and CERCLA.

H. Nothing in this section shall be construed to limit or otherwise affect Respondent's liability and obligation to perform corrective action, including corrective action beyond the Facility boundary, notwithstanding the lack of access.

XIII. RECORD PRESERVATION

A. Respondent shall retain, during the pendency of this Order and for a minimum of 6 years after its termination, all data, records, and documents now in its possession or control or which come into its possession or control which relate in any way to this Order.

Respondent shall notify U.S. EPA in writing ninety (90)days prior to the destruction of any such records, and shall provide U.S. EPA

with the opportunity to take possession of any such records.

Such written notification shall reference the effective date, caption, and docket number of this Order and shall be addressed to:

Project Coordinator for Techalloy Company, Inc. Enforcement and Compliance Assurance Branch Waste, Pesticides and Taxies Division (DE-9J)

U.S. EPA, Region 5
77 West Jackson Boulevard
Chicago, IL 60604

B. Respondent shall, within thirty (30)days of retaining or employing any agent or contractor for the purpose of carrying out the terms of this Order, enter into an agreement with any such agent or contractor whereby such agent or contractor will be required to provide Respondent copy of all documents a produced pursuant to this Order.

C. All documents pertaining to this Order shall be stored by Respondent in a centralized location at the Facility to afford ease of access by U.S. EPA or its representatives.

XIV. REPORTING AND DOCUMENT CERTIFICATION

A. Beginning with the first full month following the effective date of this Order, and throughout the period that this Order is effective, Respondent shall provide U.S. EPA with monthly progress reports. Progress reports are due by the fifteenth day of each month and report the previous month's activities and progress. The progress reports shall conform to requirements in the relevant Scope of Work contained in Attachment I. U.S. EPA may adjust the frequency of progress reports to be consistent with site-specific activities.

B. Three (3)copies of all documents submitted pursuant to this Order shall be sent to the U.S. EPA Project Coordinator designated pursuant to Section VII of this Order.

Respondent shall send these documents either by messenger service, certified mail, return receipt requested, or by overnight mail. Other addressees and additional copies (e.g., Illinois EPA) can also be designated by the U.S. EPA Project Coordinator. All documents submitted pursuant to this Order shall be printed on recycled paper and shall be copied double-sided whenever practicable.

C. Any report or other document submitted by Respondent pursuant to this Order which makes any representation concerning Respondent's compliance or noncompliance with any requirement of this Order shall be certified by a responsible corporate officer of Respondent or a duly authorized representative. A responsible corporate officer means: 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.

D. The certification required by paragraph C above, shall be in the following form:

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to evaluate the information submitted. I certify that the information contained in or accompanying this submittal is true, accurate, and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those 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 fine and imprisonment for knowing violations."

Signature: _____

Name: _____

Title: _____

Date: _____

XV. DELAY: IN PERFORMANCE/STIPULATED PENALTIES

A. Unless there he.=: been a written modification by U.S. EPA of a compliance de· , an approved workplan condition, or excusable delal s defined in Section XVII: Force Majeure and Excusable L·=:lay, if Respondent fails to comply with any term or conditn set forth in this Order in the time or manner specific:.·; herein, Respondent shall pay stipulated penalties as set forth below upon written demand from U.S. EPA:

1. For failure: to commence, perform, or complete any work required L,an U.S. EPA-approved workplan in a manner acceptable: to U.S. EPA or at the time required pursuant to this Order: $1, 000 per day for the first seven days of such violation, $2,000 per day for the eighth through twenty first day of such violation, and $4, 000 per day each day of such violation thereafter;

2. For failure, to complete or submit any workplans or reports (c· her than progress reports) in a manner acceptable to U.S. EPA or at the time required pursuant to this, or for failure to notify U.S. EPA of immediate, potential threats to human health

and/or

the environment, new releases of hazardous waste and/or new solid waste management units not previously identified, as required by this Order: $1,000 per day for the first seven days of such violation, $2,000 per day for the eighth through twenty-first day of such violation, and $4,000 per day for each day of such violation thereafter;

3. For failure to complete or submit other work not included in paragraph A.1 and A.2. of this section in a manner acceptable to U.S. EPA or at the time required pursuant to this Order: $750 per day for the first seven days of such violation, $1,500 per day for the eighth through twenty-first day of such violation, and $2,500 per day for each day of such violation thereafter;

4. For failure to comply with any other provisions of this Order in a manner acceptable to U.S. EPA: $750 per day for the first seven days of such violation, $1,500 per day for the eighth through twenty-first day of such violation, and $2,500 per day for each day of such violation thereafter.

B. Penalties shall begin to accrue on the day after complete performance is due or on the day a violation occurs, and shall continue to accrue through the day of correction of the violation. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Order. Penalties shall continue to accrue regardless of whether U.S. EPA has notified Respondent of a violation.

C. All penalties owed to the United States under this section shall be due and payable within thirty (30)days of the Respondent's receipt from U.S. EPA of a written demand for payment of the penalties. Such a written demand will describe the violation and will indicate the amount of penalties due.

D. Interest shall begin to accrue on any unpaid stipulated penalty balance beginning on the thirty-first (31)day after Respondent's receipt of U.S. EPA's demand letter. Interest shall accrue at the Current Value of Funds Rate established by the Secretary of the Treasury. Pursuant to 31 U.S.C.

§ 3717, an additional penalty of 6% per annum on any unpaid

principal shall be assessed for any stipulated penalty payment which is overdue for 90 or more days.

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

U.S. Department of Treasury
Attention: U.S. EPA, Region 5
Office of the Comptroller
P.O. Box 70753
Pittsburgh, PA 15251

F. All such checks shall reference the name of the Facility, the Respondent's name and address, and the U.S. EPA docket number of this action. Copies of all such checks and letters forwarding the checks shall be sent simultaneously to U.S. EPA's Project Coordinator and assigned attorney.

G. Respondent may dispute . S . EPA's assessment of stipulated penalties by invoking the dispute resolution procedures under Section XVI: Dispute Resolution. The stipulated penalties in dispute shall continue to accrue, but need not be paid, during the dispute resolution period. Respondent shall pay stipulated penalties and interest, if any, in accordance with the dispute resolution decision and/or

agreement. Respondent shall submit such payment to U.S. EPA within seven (7) days of receipt of such resolution In accordance with paragraph E of this section.

H. Neither the invocation of dispute resolution nor the payment of penalties shall alter in any way Respondent's obligation to comply with the terms.and conditions of this Order.

I. The stipulated penalties set forth in this section do not preclude U.S. EPA from pursuing any other remedies or sanctions which may be available to U.S. EPA by reason of Respondent's failure to comply with any of the terms and conditions of this Order including, but not limited to, seeking statutory penalties for such violations.

J . No payments under this section shall be tax deductible for Federal tax purposes.

XVI. DISPUTE RESOLUTION

A. The parties shall use their best efforts to resolve informally and in good faith all disputes or differences of opinion. The parties agree that the procedures contained in this section are the sole procedures for resolving disputes

arising under this Order. If Respondent fails to follow any of the requirements contained in this section then it shall have waived its right to further consideration of the disputed issue.

B. If Respondent disagrees, in whole or in part, with any written decision (Initial Written Decision) by U.S. EPA pursuant to this Order, Respondent's Project Coordinator shall notify the U.S. EPA Project Coordinator of the dispute. The Project Coordinators shall attempt to resolve the dispute informally.

C. If the Project Coordinators cannot resolve the dispute informally, Respondent may pursue the matter formally by placing its objections in writing.Respondent's written objections must be directed to the supervisor of U.S. EPA's Project Coordinator and copied to U.S. EPA's Assistant Regional Counsel. This written notice must be mailed to such persons within fourteen (14)days of Respondent's receipt of the Initial Written Decision. Respondent's written objection must set forth the specific points of the

dispute, the position Respondent claims should be adopted as consistent with the requirements of this Order, the basis

for Respondent's position, and any matters which it considers necessary for U.S. EPA's determination.

D. U.S. EPA and Respondent shall have fourteen (14)days from U.S. EPA's receipt of Respondent's written objections to attempt to resolve the dispute through negotiations. This time period may be extended by U.S. EPA for good cause. During such time period (Negotiation Period), Respondent may request a conference with Chief of the Enforcement Compliance Assurance Branch to discuss the dispute and Respondent's objections. U.S. EPA agrees to confer in person or by telephone to resolve any such disagreement with Respondent as long as Respondent's request for a conference will not extend the Negotiation Period.

E. Any agreement to resolve the dispute reached by the parties pursuant to this section shall be in writing and shall be signed by both parties. The written agreement shall be an enforceable element of this Order.

F. If the parties are unable to reach an agreement within the Negotiation Period Respondent may submit, within ten (10) days of the end of the Negotiation Period, any additional

written arguments and evidence not submitted in its previous written objections, to the Director of the Waste, Pesticides and Taxies Division (WPTD). The Chief of the Enforcement Compliance Assurance Branch shall respond in writing to the Director of the WPTD. Based on the record, the Director of the WPTD shall provide to Respondent U.S. EPA's written decision on the dispute and the basis for that decision (Dispute Decision). The Dispute Decision shall be incorporated into and become an enforceable element of this Order, but will not be considered final Agency action for purposes of judicial review.

G. Except as provided in Section XV: Delay in Performance/ Stipulated Penalties, the existence of a dispute as defined in this section and U.S. EPA's consideration of matters placed into dispute shalnot excuse, toll, or suspend any compliance obligation or deadline required pursuant to this Order during the pendency of the dispute resolution process.

XVII. FORCE MAJEURE AND EXCUSABLE DELAY

A. Force majeure, for purposes of this Order, is defined as any event arising from causes not foreseen and beyond the

control of Respondent or any person or entity controlled by Respondent, including but not limited to Respondent's contractors, that delays or prevents the timely performance of any obligation under this Order despite Respondent's best efforts to fulfill such obligation.

The requirement that Respondent exercise "best efforts to fulfill such obligation" shall include, but not be limited to, best efforts to anticipate any potential force majeure event and address it before, during, and after its occurrence, such that any delay or prevention of performance is minimized to the greatest extent possible.

B. Force majeure does not include increased costs of work to be performed under this Order, financial inability to complete the work, plant shutdown, work stoppages or other labor disputes.

C. If any event occurs or has occurred that may delay the performance of an obligation under this Order, whether or not caused by a force majeure event, Respondent shall provide written notice to U.S. EPA's Project Coordinator or, in their absence, his or her supervisor within 48 hours of when Respondent first knew or should have known that the

event might cause a delay. If Respondent wishes to claim a force majeure event, then within five (5)days of the event Respondent shall provide to U.S. EPA in writing detailed information regarding:

1. The events or causes giving rise to the claim;
2. The work that is subject to the event and the anticipated duration of the delay;
3. All actions Respondent has taken and will take to prevent or minimize the delay;
4. All other obligations affected by the event, and what measures, if any, Respondent has taken and will take to minimize the effect of the event on those obligations;
5. A schedule for implementation of all measures Respondent will take to prevent or mitigate the delay or the effect of the delay;
6. Respondent's rationale for attributing such delay to a force majeure event if it intends to assert such a claim;
7. A statement as to whether, in the opinion of Respondent, such event may cause or contribute to endangerment to public health or the environment; and

8. A description of its best efforts to fulfill its obligations under the Order and to minimize the duration of any delay.

D. Respondent shall include with any claim of force majeure all available documentation supporting its claim, if any, that the delay was attributable to a force majeure event. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of force majeure for that event. Respondent shall be deemed to have notice of any circumstances of which its contractors had or should have had notice.

E. If U.S. EPA determines that the delay or anticipated delay is attributable to a force majeure event, the time for performance of such obligation under this Order that is affected by the force majeure event will be extended by U.S. EPA for such time as U.S. EPA determines is necessary to perform such obligation. U.S. EPA will notify Respondent in writing of the length of the extension, if any.

F. An extension of the time for performance of such obligation affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation,

unless Respondent can demonstrate that more than one obligation was affected by the force majeure event.

G. If U.S. EPA disagrees with Respondent's assertion of a force majeure event, U.S. EPA will notify Respondent in writing and Respondent may elect to invoke the dispute resolution provision, and shall follow the time frames set forth in Section XVI: Dispute Resolution. In any such proceeding Respondent shall have the burden of demonstrating by a preponderance of the evidence that the delay or the anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondent complied with the requir ments of this section. If Respondent satisfies this burden, the time for performance of such obligation will be extended by U.S. EPA for such time as is necessary to complete such obligation.

XVIII. RESERVATION OF RIGHTS

A. U.S. EPA reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to this Facility, the work required by this Order, or 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, release, waiver, or limitation of any rights, remedies, powers, and/or authorities, civil or criminal, which U.S. EPA has under RCRA, CERCLA, or any other statutory, regulatory, or common law authority of the United States.

B. U.S. EPA reserves the right to disapprove of work performed by Respondent pursuant to this Order and to order that Respondent perform the work required or additional tasks.

C. U.S. EPA reserves the right to perform any portion of the work consented to herein or any additional site characterization, feasibility study, and remedial work as it deems necessary to protect human health and/or the

environment. U.S. EPA may exercise its authority under CERCLA to undertake response actions at any time. In any event, U.S. EPA reserves its right to seek reimbursement from Respondent for costs incurred by the United States. Notwithstanding compliance with the terms of this Order, Respondent is not released from liability, if any, for the costs of any response actions taken or authorized by U.S. EPA in accordance with the requirements of this paragraph.

D. If U.S. EPA determines that activities in compliance or noncompliance with this Order have caused or may cause a release of hazardous waste or hazardous constituent(s), or a threat to human health and/or the environment, or that Respondent is not capable of undertaking any of the work ordered, U.S. EPA may order Respondent to st p further implementation of this Order for such period of time as U.S. EPA determines may be needed to abate any such release or threat and/or to undertake any action which U.S. EPA determines is necessary to abate such release or threat.

E. This Order is not intended to be nor shall it be construed to be a permit. Further, the parties acknowledge and agree that U.S. EPA's approval of a Scope of Work or any final

workplan does not constitute a warranty or representation that the Scope of Work or workplan will achieve the required cleanup or performance standards. Compliance by Respondent 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.

F. Notwithstanding any other provision of this Order, no action or decision by U.S. EPA pursuant to this Order, including without limitation decisions of the Regional Administrator, the Director of the Waste, Pesticides and Toxics Division or any authorized representative of U.S. EPA, shall constitute final Agency action giving rise to any right of judicial review prior to U.S. EPA's initiation of a judicial action to enforce this Order, including an action for penalties or an action to compel Respondent's compliance with the terms and conditions of this Order.

G. In any action brought by U.S. EPA for a violation of this Order, Respondent shall bear the burden of proving that U.S. EPA's actions were arbitrary and capricious and not in accordance with law.

H. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive or other appropriate relief relating to the Facility, Respondent shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata,

collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been raised in the present matter.

Respondent also shall not contest U.S. EPA's jurisdiction to issue or enforce this Order and shall not contest the terms of this Order. Respondent reserves its right to raise all other defenses, factual, legal, and equitable, in any action brought to enforce the provisions of this Order or in any other action relating to the Facility.

Respondent has entered in to this Order in good faith without trial or adjudication of any issue of fact or law.

XIX. OTHER CLAIMS

A. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action, demand, or defense in law or equity against any person, firm, partnership, or

corporation 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 migrating from, the Facility.

B. Respondent waives any claims or demands for compensation or payment under Sections 106(b), 111, and 112 of CERCLA, 42 U.S.C. §§ 9606(b), 9611, and 9612, against the United States or the Hazardous Substance Superfund established by 26 U.S.C. § 9507 for, or arising out of, any activity performed or expense incurred pursuant to this Order. Additionally, this Order does not constitute any decision on preauthorization of funds under Section 111{a)(2) of CERCLA, 42 U.S.C. § 9611{a)(2).

XX. 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 cause its representatives to obtain all permits and approvals necessary under such laws and regulations.

XXI. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

A. Except as provided below, Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents, and employees (collectively, the United States) from any and all claims or causes of action arising from or on account of acts or omissions of Respondent or its officers, employees, agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Order. Respondent shall not be required to indemnify the United States where its agencies, departments, agents or employees are contributorily negligent or guilty of other wrongful acts or omissions.

B. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Respondent or the United States under their various contracts.

XXII. FINANCIAL RESPONSIBILITY

A. Respondent shall provide financial assurance in the amount of Ex. 6 Personal Privacy (PP) Ex. 6 Personal Privacy (PP) for the implementation of corrective measures within ninety (90) days of the effective date of this Order. Respondent shall establish the financial assurance from among one or more of the following:

1. A trust fund;
2. A surety bond;
3. A letter of credit;
4. Insurance; or
5. A financial test and corporate guarantee.

B. The wording and terms of the financial assurance instrument(s) shall be subject to approval by the U.S. EPA.

XXIII. MODIFICATION

A. This Order may only be modified by mutual agreement of U.S. EPA and Respondent. Any agreed modification shall be in writing and signed by both parties, shall have as its effective date the date on which it is signed by U.S. EPA, and shall be incorporated into this Order.

B. Any reports, plans, specifications, schedules, and attachments required by this Order are, upon written approval by U.S. EPA, incorporated into this Order.

C. Unless there is an approved modification as provided in paragraph D of this section, any noncompliance with such U.S. EPA-approved reports, plans, specifications, schedules, and attachments shall be considered a violation of this Order and shall subject Respondent to the penalty provisions of Section XV: Delay in Performance/Stipulated Penalties.

D. Any request by Respondent for a compliance date modification and/or revision of an approved workplan requirement must be made in writing and be received by U.S. EPA at least ten (10)days prior to an applicable deadline. Such requests must provide justification for any proposed compliance date modification or workplan revision. U.S. EPA has no obligation to approve such requests, but if it does so, such approval and the modification or revision must be in writing from U.S. EPA's Project Coordinator.

E. Any approved compliance date modification shall be incorporated by reference into this Order. Such a

modification would not alter other due dates, unless so stated by U.S. EPA in its written approval, modification, or revision.

f. No informal advice, guidance, suggestions or comments by U.S. EPA regarding reports, plans, specifications, schedules or any other writing submitted by Respondent will be construed as relieving Respondent of its obligation to obtain written approval, if and when required by this O der.

XXIV. SEVERABILITY

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

XXV. SURVIVABILITY/PERMIT INTEGRATION

A. Except as otherwise expressly provided in this section, this Order shall survive the issuance or denial of a RCRA permit for the Facility, and this Order shall continue in full

force and effect after either the issuance or denial of such permit. Accordingly, Respondent shall continue to be liable for the performance of obligations under this Order notwithstanding the issuance or denial of such permit.

B. If Respondent is issued a RCRA permit for this Facility that expressly incorporates all or part of the requirements of this Order, or expressly states that its requirements are intended to replace some or all of the requirements of this Order, Respondent may request a modification of this Order and shall, with written U.S. EPA approval, be relieved of liability under this Order for those specific obligations.

XXVI. TERMINATION AND SATISFACTION

A. The provisions of this Order shall be deemed satisfied upon Respondent's and U.S. EPA's execution of an "Acknowledgment of Termination.and Agreement to Record Preservation and Reservation of Rights" (Acknowledgment). U.S. EPA will prepare the Acknowledgment for Resp ndent's signature when U.S. EPA has determined that Respondent has demonstrated to the satisfaction of U.S. EPA that the terms of this Order, including any additional tasks determined by U.S. EPA to be

required pursuant to this Order, have been satisfactorily completed and any penalties have been paid. Respondent's execution of the Acknowledgment will affirm that Respondent has certain continuing obligations as identified by U.S. EPA. These continuing obligations include:

1. Preserving all records as required in Section XIII: Record Preservation;
2. Recognizing U.S. EPA's reservation of rights as required in Section XVIII: Reservation of Rights, after all other requirements of this Order are satisfied; and
3. Maintaining long-term corrective measures until such time as U.S. EPA terminates Respondent's duty for these activities.

B. The Acknowledgment required by this section shall be consistent with Attachment II: Acknowledgment of Termination.

XXVII. EFFECTIVE DATE

The effective date of this Order shall be the date on which it is signed by U.S. EPA. Because the Order was entered with the consent of both parties, Respondent waives its right to request a

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public hearinpu:r\l'i\lnt- to Ser.tion 3008(b) o£ RCRA, 42 u.s.c.

g 6928 (1;) •

T"r TR SO AGREED:

Philippe L. Maitrepierre
Techalloy Company, Inc.
President & Chief Executive Officer

September 30, 1999
Date

BY:

IT BEING SO AGREED, IT IS HEREBY ORDERED T.tUS 30-1 DAY OF September, 1999.

BY: Joseph M Boyle

J4 h M. Boyle, C:hi pf
E rcement & Compliance Assurance Branch
Waste, Pe8Ll lueand TaxiesD1v1sion
U.S. EPA, Region 5

U.S. EPA I.D.# ILD 00 1'/ij T'::J

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EXHIBIT A

RESIDENTIAL WELLS USED FOR DRINKING WATER

Ex. 9 Wells

EXHIBIT B

RESIDENTIAL WELL - HIGHBRIDGE ROAD

Ex. 9 Wells

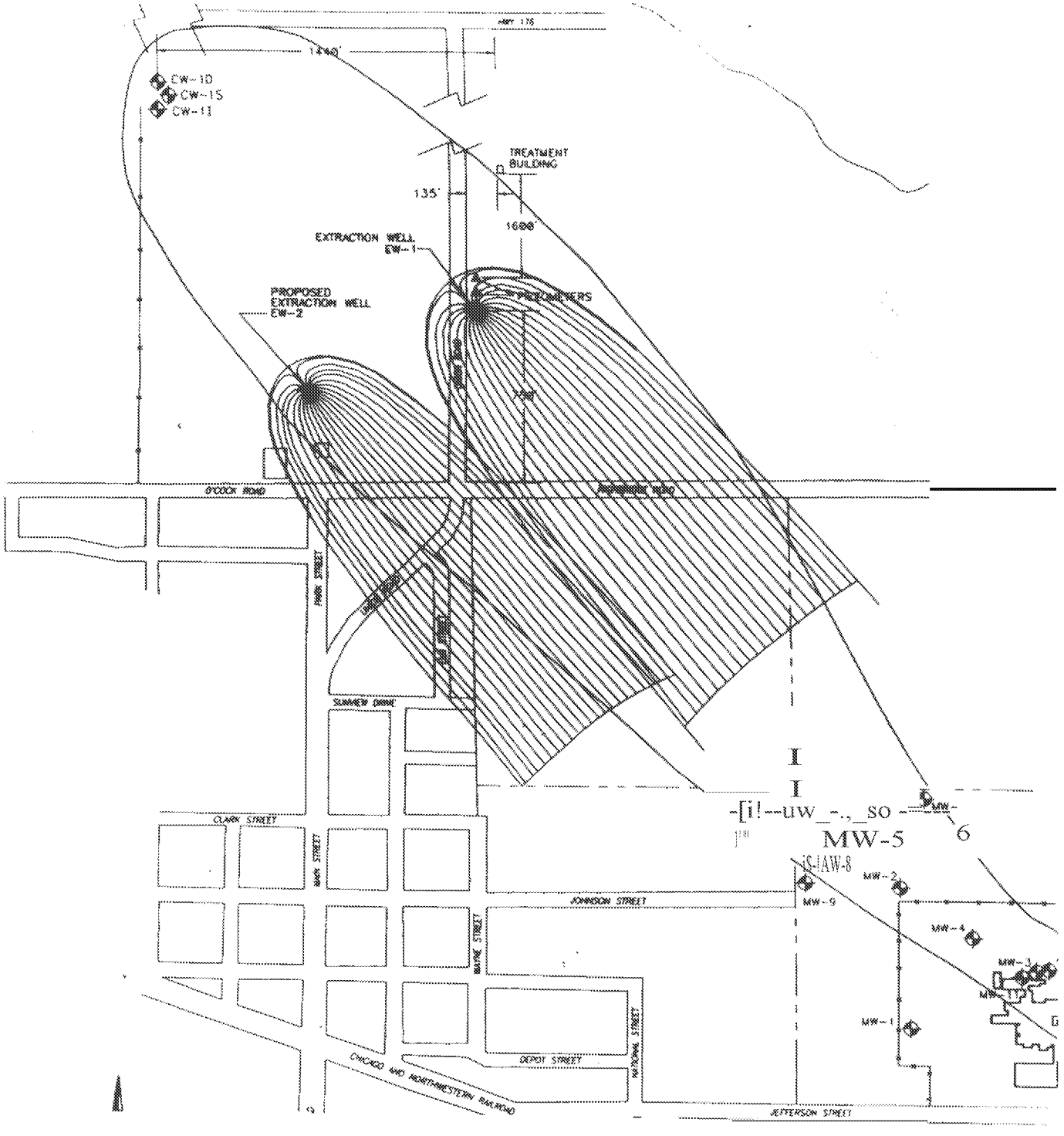

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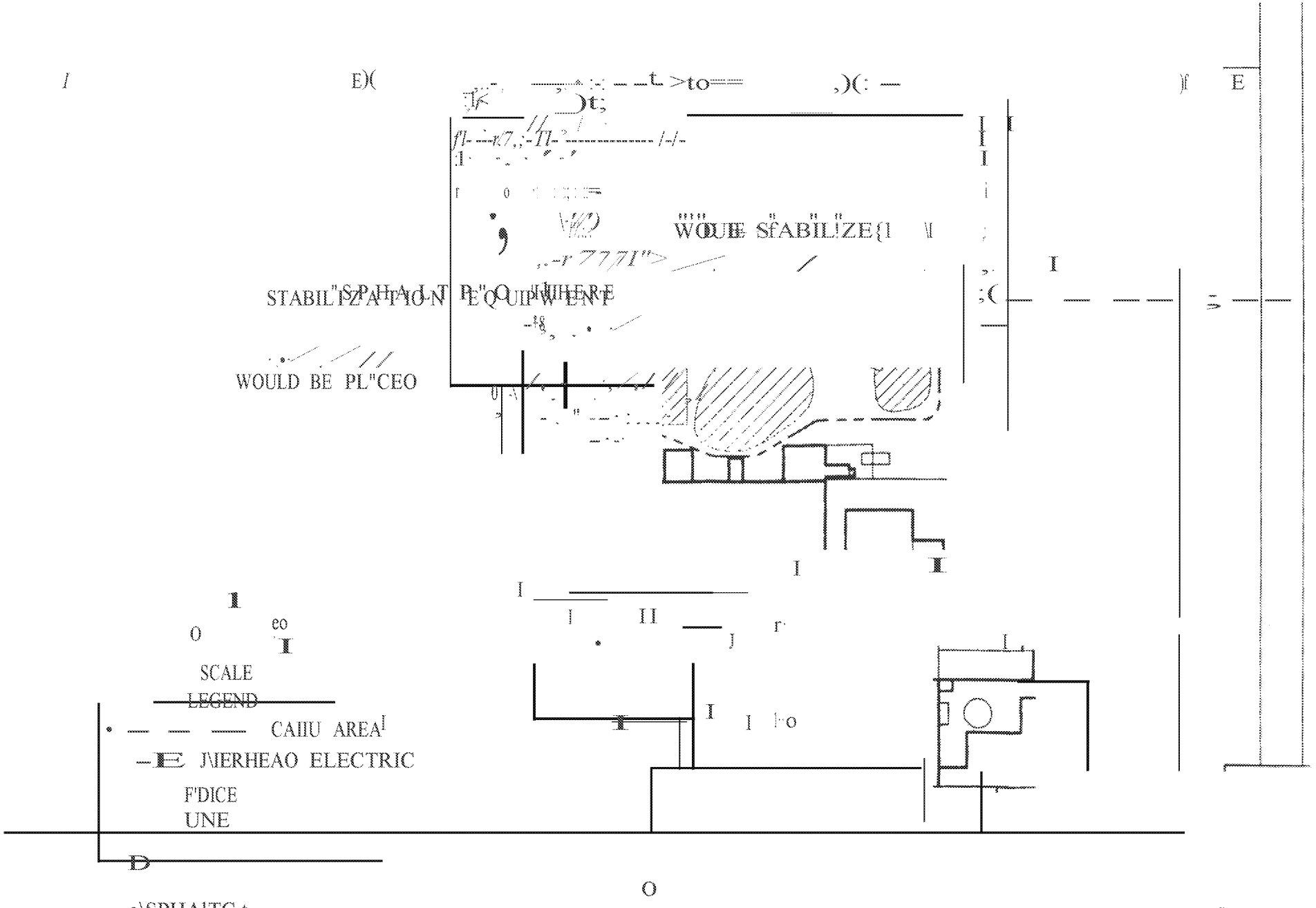
EXHIBIT C
GROUNDWATER
RECOVERY CAPTURE
ZONE



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Three
Hawthorn
Parkway
Vernon
Hills
Illino'1s
60061

C.t.UU SITE
LAYOUT

fiGURE
2-

TECHALLOY
COMPANY INC.
Vernon
Illino1s

EXHIBIT D

ATTACHMENT

II

CORRECTIVE MEASURES IMPLEMENTATION
PROGRAM TECHALLOY COMPANY, INC.

SCOPE OF WORK

ATTACHMENT
II

CORRECTIVE MEASURES IMPLEMENTATION PROGRAM TECHALLOY COMPANY, INC

SCOPE OF WORK

PURPOSE

This Scope of Work (SOW) sets forth the requirements for the implementation of the design, construction/installation, operation, maintenance and monitoring of the Corrective Measures selected by U.S. EPA in the May 26, 1998, RCRA Final Decision for the Techalloy Company, Inc., Facility in Union, Illinois.

DESCRIPTION OF THE CORRECTIVE MEASURES

The major components of the corrective measures are:

- Institutional controls
- Continuance of private well sampling program
- Continued operation of a groundwater recovery system with upgrade
- Soil stabilization to address soils contaminated with metals
- Focused air sparge/soil vapor extraction system
- Groundwater monitoring

Respondent shall design and implement the corrective measures to fulfill the requirements of the Consent Order and meet the performance standards set forth in an approved Final Design.

SCOPE

TASK I	Connection to City Water System and Private Well Sampling
TASK II	Perform Soil Stabilization Treatment
TASK III	Implement Corrective Measures Final Design

TASK I Connection to City Water System and Private Well Sampling

A. Pursuant to Section VIII.D.1. and VIII.D.3. of the Consent Order, Respondent shall provide residential wells with connection to the city water system of Union, Illinois, and shall provide for proper abandonment of residential wells that are so connected.

B. Pursuant to VIII.D.2. of the Consent Order, Respondent shall perform quarterly sampling and analysis of private wells.

TASK II Perform Soil Stabilization Treatment

Pursuant to Section VIII.F. of the Consent Order, Respondent shall perform soil stabilization treatment and shall address the following elements:

A. Implement bench scale studies

1. Develop baseline characterization a. Physical soil tests
   (1)permeability
   (2)unconfined compressive strength
   (3)bulk density
   (4)grain size
   (5)Atterberg limits
   (6)specific gravity
   (7)soil classifi ation

   b. Chemical soil testing
   (1)volatile organic compounds
   (2)Toxic Characteristic Leaching Procedure (TCLP) chromium, nickel, lead, and arsenic

   (To maximize testing,tests shall be performed on most highly contaminated soils)

2. Preliminary study
   a. Testing of admixture formulations
   (1)permeability
   (2)unconfined compressive strength
   (3) (TCLP) analysis EPA SW 1300 chromium, nickel, lead, and arsenic

3. Select admixture formulation

B. Implement soil stabilization treatment

1. Install asphalt pad for equipment/soil staging which meets following specifications:
   a. 2-3% slope
   b. 4 inch perimeter berm

2. Excavate soils at designated areas - Exhibit D (to justabove water·table)
   a. Perform verification sampling/analysis at perimeter of areas designated for excavation and treatment
      (1)Collect a minimum of 5 shallow (1-3 foot depth range) soil samples at each area
         (a)analyze for chromium, nickel, lead and arsenic content

   b. Expand excavation at areas where metal content in perimeter samples exceeds:
      (1) 1960 mg/kg chromium (2)2665 mg/kg nickel (3) 1500 mg/kg lead (4)240 mg/kg arsenic

3. Soil stabilization treatment
   a. Apply selected admixture formulation to excavated soils

4. Verification sampling
   Perform verification analysis of soil for each 400 cubic yard treatment batch:
   a. TCLP analysis - pre-treatment/post-treatment chromium, nickel, lead, and arsenic
   b. Unconfined compressive strength c. Permeability

5. Performance standards
   Treated soils shall meet the following performance standards:
   a. 95% reduction of chromium, nickel, lead, and

arsenic as established by pre-treatment/
post-treatment TCLP analysis b.
Permeability
1 X 10-6 em/sec or less

c. Unconfined compressive strength
20 psi/2 day cure
50 psi/28 day cure

6. Return treated soils meeting performance standards to excavations or Spent Acid Holding Pond
   a. 12 inch lifts
   b. Compact'soil- 90% maximum

C. Asphalt cap installation

1. Install asphalt cap as depicted in Exhibit D
   The asphalt cap shall meet the following specifications:
   a. 2 inch gravel subgrade
      lower 2.5 inches asphalt - IDOT Class I Type 2 upper 2.5 inches asphalt - IDOT Class I Type 3
   b. 2-3 % slope

D. Complete closure of CAMU and perform post-closure care for CAMU pursuant to 40 CFR 264.552(e)(4)

1. At a minimum, closure shall include:
   a. Decontamination of equipment
   b. Off-site disposal of decontamination residuals

2. At a minimum, post- losure care shall include:
   a. Inspection of asphalt cap b.
      Groundwater monitoring
   c. Recordkeeping
   d. Implementation of Contingency Plan as appropriate

TASK III Implement Corrective Measures Final Design

Draft and Final Designs for implementation of corrective measures shall be submitted in accordance with Section VIII of the Consent Order, and shall address the following elements:

A. Air Sparge/Soil Vapor Extraction (AS/SVE) specifications

1. Collect pre-design data as needed and perform pilot study and preliminary testing

2. Results of all testing and analysis of pre-design investigation (tables, laboratory reports, illustrations, discussion of results)

3. Location and construction details for a. Sparge wells
   b. SVE wells
   c. Monitoring wells for AS/SVE system
   d. Schematic for vapor treatment system e. Performance standards

B. Groundwater Recovery System Operation

1. Performance standards

2. Monitoring of system
   a. Water level measurements b. Sampling and analysis
      (1) influent water
      (2) effluent water

C. Groundwater Monitoring Specifications

1. General monitoring program
   a. Monitoring well locations b. Analytes
   c. Sampling schedule

2. CAMU post-closure monitoring a. Monitoring well sampling
   At a minimum, monitoring well sampling shall include:
   (1) one initial sampling - OBS-W
   (2) annual sampling - MW-2, MW-5, MW-5D, MW-6, MW-7, MW-8
   (3) analytes - chromium, nickel, and lead

b. Contingency Plan
(1)statistical analysis
(2)response sampling

D. Site Maintenance

1. Asphalt cap
   a. Inspection schedule
   b. Maintenance procedures

2. Chain link fence
   a. Inspection schedule
   b. Maintenance procedures

QUALITY ASSURANCE/QUALITY CONTROL

All data shall be collected and analyzed in accordance with the approved Quality Assurance Project Plan dated March 1994 or, as applicable, the latest U.S. EPA-approved test method. ASTM standardized tests or U.S. EPA-approved test methods shall be used for physical soil testing. Chemical analysis shall be performed
by the same laboratories used for the RCRA Facility Investigation.

HEALTH AND SAFETY PLAN
All work shall be performed in accordance with the approved Health and Safety Plan, supplemented as needed.

ATTACHMENT II

Acknowledgment of Termination

ATTACHMENT II Acknowledgment
of Termination

ACKNOWLEDGMENT OF TERMINATION
AND
AGREEMENT TO RECORD PRESERVATION AND RESERVATION OF RIGHTS

1. The United States Environmental Protection Agency (U.S.EPA) agrees and acknowledges that the terms of the Administrative Order for Corrective Measures Implementation issued by U.S. EPA on , 1999, U.S. EPA Docket No. R8H-5-99-008, (Order) including any additional tasks determined by U.S. EPA to have been required pursuant to the Order, but excluding Section XIII: Record Preservation, have been satisfactorily completed based upon the information presently available to U.S. EPA.

2. Respondent agrees and acknowledges that the terms of Section XIII: Record Preservation remain in effect until ,20
(date 6 years after termination of the Order).

3. Respondent agrees and acknowledges that Respondent's completion of the terms of the Order does not limit or otherwise preclude U.S. EPA from taking additional enforcement action pursuant to Section 3008(h) of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. §6928(h), or other available legal authorities, should U.S. EPA determine that such actions are warranted.

4. Respondent agrees and acknowledges that Respondent's completion of the terms of the Order does not relieve Respondent of its obligations to comply with RCRA or any other applicable local, State, or Federal laws and regulations.

IT IS SO AGREED AND ACKNOWLEDGED:

Date:_____ By: _(Name),(Title)
TECHALLOY COMPANY, INC.

Date:_____ By: _(Name),(Title)
UNITED STATES
ENVIRONMENTAL PROTECTION
AGENCY
REGION 5