

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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HEARING CLERK

Docket No. RCRA-08-2007-0001

IN THE MATTER OF: )  
)  
Katzson Brothers, Inc., ) ADMINISTRATIVE ORDER  
960 Vallejo St., ) ON CONSENT  
Denver, Colorado 80204 )  
) Proceeding under Section  
EPA I.D. #COD031992225, ) 3008(h) of the Resource  
) Conservation and Recovery  
) Act, as amended,  
Respondent. ) 42 U.S.C. § 6928(h)  
)

I. JURISDICTION

1. This Corrective Action Order on Consent ("Order") is issued by the United States Environmental Protection Agency Region 8 ("EPA") to Katzson Brothers, Incorporated ("Respondent" or "Katzson Bros."), the owner and operator of a distributor of cleaning supplies and paper products to the hotel and dry cleaning industries, located at 960 Vallejo Street, Denver, Colorado 80204.
2. This Order is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency ("EPA") by § 3008(h) of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 ("RCRA"), as amended by, *inter alia*, the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6928(h).
3. This authority has been delegated to the EPA signatories below.
4. Respondent consents to and agrees not to contest EPA's jurisdiction to issue this Order or to enforce its terms. Further, Respondent will not contest EPA's jurisdiction to: compel compliance with this Order in any subsequent enforcement proceedings, either administrative or judicial; require Respondent's full or interim compliance with the terms of this Order; or impose sanctions for violations of this Order.
5. Respondent waives any rights to request a hearing on this matter pursuant to § 3008(b) of RCRA, 42 U.S.C. § 6928(b), and consents to the issuance of this Order as an order issued pursuant to § 3008(h) of RCRA, 42 U.S.C. § 6928(h).

## II. DEFINITIONS

For purposes of this Order the following definitions shall apply. Unless otherwise expressly provided herein, terms used in this Order shall have the definitions given to them by RCRA, or the federally-authorized Colorado Hazardous Waste program.<sup>1</sup> For those terms which are defined in RCRA or its implementing regulations, but for which the Colorado Program has not received federal authorization, the definitions in RCRA and its implementing regulations shall apply.

Acceptable or Appropriate shall mean that the quality of submittals or completed work is sufficient to warrant EPA review to determine whether the submittal or work meets the terms and conditions of this Order, including all attachments, scopes of work, approved work plans and/or EPA's written comments, and EPA guidance documents. Acceptability of submittals or work, however, does not necessarily imply that they are approvable or will be approved pursuant to this Order. Approval by EPA of submittals or work, however, establishes that those submittals were prepared, or work was completed, in a manner acceptable to EPA.

Administrative Record shall mean the record compiled and maintained by EPA in connection with the issuance and implementation of this Order.

Advanced Notice of Proposed Rulemaking or ANPR shall mean the body of the Federal Register notice found at 61 Fed. Reg. 19432 (May 1, 1996), which was published to begin the formal rule development regarding cleanup at hazardous waste management facilities under RCRA. Although the majority of the ANPR was subsequently withdrawn from the rulemaking process (64 Fed. Reg. 54604 (Oct. 7, 1999)), the ANPR continues to be considered the primary corrective action implementation guidance (64 Fed. Reg. at 54607).

Areas of Concern shall mean any area of the Facility at or from which a release to the environment of any hazardous waste or hazardous constituent has occurred, is suspected to have occurred, or may occur, regardless of the time, frequency or duration of the release, and which may present an unacceptable risk to human health or the environment regardless of whether such area meets the definition of a Solid Waste Management Unit. The term Areas of Concern includes, but is not limited to, areas and discernible units at which solid wastes have been placed,

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<sup>1</sup> Pursuant to Section 3006(b) of RCRA, 42 U.S.C. section 6926(b), effective November 2, 1984, EPA granted the State of Colorado ("the State") final authorization to operate a hazardous waste regulatory program in lieu of the federal regulatory program. All references in this Order to State regulations are those State regulations authorized by EPA under Section 3006(b) of RCRA through 1994. See 49 Fed. Reg. 41036 (October 19, 1984); 51 Fed. Reg. 37729 (October 24, 1986); 54 Fed. Reg. 20847 (May 15, 1989); 56 Fed. Reg. 21601 (May 10, 1991); and 59 Fed. Reg. 16568 (April 7, 1994).

at any time, irrespective of whether the area or unit was intended for the management of solid or hazardous waste. Examples of Areas of Concern include, but are not limited to, landfills, surface impoundments, pits, waste piles, land treatment units, incinerators, tank systems (including any storage, treatment, or accumulation tank system), container storage units, waste or wastewater treatment system units, and recycling units, or other areas or systems that received solid or hazardous waste or hazardous constituents, or released hazardous waste or hazardous constituents at any time.

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

Chemical of Potential Concern ("COPC") shall mean any chemical that has been released at or from the Facility and which may pose a risk to human health or the environment, as determined in the RCRA Facility Investigation. This term may also be referred to as "constituent of concern."

Comply or compliance may be used interchangeably and shall mean completion of work required by this Order including submittal of documents of a quality acceptable to EPA, in accordance with work plans approved by EPA and in the manner and time specified in an approved work plan, this Order or any modification thereof. Respondent must meet both the quality (see definition of acceptable) and timeliness components of a particular requirement to be considered to be in compliance with the terms and conditions of this Order.

Contractor shall mean any person including, but not limited to, any consultant, laboratory or subcontractor retained by Respondent to conduct or monitor any portion of the work performed pursuant to this Order.

Corrective Measures shall mean those measures or actions appropriate to control, prevent or mitigate the release, potential release or movement of hazardous waste or hazardous constituents into the environment or within or from one media to another.

Corrective Measures Implementation or CMI shall mean those activities appropriate to initiate, monitor, maintain, and complete the remedies EPA has selected or may select.

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

Data Quality Objectives shall mean the qualitative or quantitative statements, the application of which is designed to ensure that data of known and appropriate quality are obtained.

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.

Decision Document shall mean the document issued by EPA setting forth EPA's selection of the corrective measure alternative(s) to be implemented at the Facility to achieve final cleanup objectives.

Disposal shall mean the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground water. 6 CCR 1007-3, § 260.10.

Environmental Indicators (EI) shall mean the EI for current human exposures and the migration of contaminated groundwater, as described in the EPA Memorandum dated February 5, 1999, entitled "Interim-Final Guidance for RCRA Corrective Action Environmental Indicators," from Elizabeth Cotsworth, Acting Director, Office of Solid Waste.

EPA shall mean the United States Environmental Protection Agency, and any successor departments or agencies of the United States.

Facility shall mean the property of Respondent located at 960 Vallejo Street, Denver, Colorado 80204, including all contiguous property under the control of Respondent and as defined at 6 CCR 1007-3, § 260.10.

Final Corrective Action Plan or Final CAP shall mean the OSWER Directive 9902.3-2A (identification no. EPA 520-R-94-004, May 1994) created to provide guidance which program implementers and facility owners/operators can use to develop and direct site-specific corrective action activities.

Groundwater shall mean the water in the saturated zone beneath the land surface.

Hazardous constituents shall mean those constituents listed in Appendix VIII of 6 CCR 1007-3, Part 261 or any constituent identified in Appendix IX to 40 C.F.R. Part 264 or any approved subset of Appendix IX to 40 C.F.R. Part 264.

Hazardous waste shall mean "hazardous waste" as defined in 6 CCR 1007-3, § 261.3 and section 1004(5) of RCRA, 42 U.S.C. § 6903(5)

Hazardous Waste Management Unit shall mean "hazardous waste management unit" as that term is defined in 6 CCR 1007-3, § 260.10.

Imminent Threat shall mean any release or threatened release of hazardous waste or hazardous constituent on or from the Facility which may present an imminent endangerment to human health and/or the environment.

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 pump and treat. Pump and treat in this instance refers to pumping with conventional treatments like air stripping and UV oxidation. For example, in-situ treatment technologies such as permanganate and nutrient addition to facilitate bioremediation and/or natural attenuation.

Interim Measure or IM shall mean those actions which can be, or are, initiated in advance of implementation of the final corrective action for the Facility and which are designed to achieve stabilization and/or control or abate immediate threats to human health and/or the environment and/or minimize the spread of contaminants.

Order shall mean this Corrective Action Order on Consent and all attachments hereto, and all specifications, reports, schedules, and work plans approved by EPA pursuant to this Order, and all documents incorporated into this Order, as provided herein.

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

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

Resource Conservation and Recovery Act or RCRA shall mean the Solid Waste Disposal Act, as amended.

RCRA Facility Investigation or RFI shall mean the investigation and characterization of the source(s) and/or releases of hazardous wastes and hazardous constituents and the nature, extent, direction, rate, movement, and concentration of such releases of hazardous wastes and/or hazardous constituents, that have been, or may be released or may reasonably be expected to be released into the environment from or at and/or to migrate from the Facility.

Scope of Work or SOW shall mean the outline of work Respondent must use to develop all work plans 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 or SWMU shall mean any discernable 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 at which solid wastes have been routinely and systematically released.

Stabilization shall mean the actions employed to control or abate releases that pose an actual or potential threat to human health and/or the environment, to control off-site releases from the migration of contaminated groundwater, and to contain or remove source areas for actual or potential releases.

Submittal shall mean any document Respondent is required to send to EPA pursuant to this Order, including but not limited to all work plans, reports and progress reports.

Violation(s) shall mean any actions, omissions, failures, or refusals to act by Respondent that result in a failure to meet any term or condition of this Order.

Work or obligation shall mean any activity Respondent is required to perform to comply with requirements of this Order.

Work plan shall mean the detailed plans prepared by Respondent as required under this Order. All work plans and modifications or amendments thereto are incorporated into this Order and are an enforceable part of this Order when approved in writing by EPA.

### III. STATEMENT OF PURPOSE

By entering into this Order, the mutual objective of EPA and Respondent is for Respondent to perform RCRA Corrective Action activities to address contamination in accordance with the requirements of this Order.

### IV. APPLICABILITY/PARTIES BOUND

1. This Order shall apply to and be binding upon Respondent and its, officers, directors, employees, agents, successors, assigns, trustees, receivers, upon all persons acting on behalf of Respondent, and upon EPA.
2. Respondent shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants retained to conduct or monitor any portion of the work performed pursuant to this Order within fourteen (14) days of the effective date of this Order or within fourteen (14) days after retaining the services of such contractors, subcontractors, laboratories or consultants, whichever is later. Respondent shall require its contractors, subcontractors, laboratories or consultants to perform work which meets the requirements of this Order, and Respondent shall be responsible for such work meeting the requirements of this Order.
3. No change in ownership, 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.
4. Respondent will be responsible for and liable for any failure to carry out all activities required of Respondent by this Order, regardless of Respondent's use of employees, agents, contractors or consultants to perform any such tasks.
5. Respondent shall give written notice of this Order to any successor in interest prior to transfer of ownership or operation of the Facility or any portion thereof and shall notify EPA at least twenty (20) days prior to any such transfer of ownership or operation.
6. Respondent agrees to undertake all actions required by this Order, including any portions of this Order incorporated by reference.

## V. FINDINGS OF FACT AND CONCLUSIONS OF LAW

For purposes of this Order, and based on the Administrative Record, EPA makes the following findings of fact and conclusions of law:

### A. Ownership and Operation:

1. At all times relevant to this Order, Katzson Brothers, Inc., ("Respondent"), was and is a Colorado corporation registered to conduct business in the State of Colorado.
2. Respondent is a "person" within the meaning of 6 CCR 1007-3, § 261.10 and §1004(15) of RCRA.
3. Respondent operates as a distributor of cleaning supplies and paper products to the hotel and dry cleaning industries at a Facility located at 960 Vallejo Street, Denver, Colorado ("Facility").
4. The Facility forms the subject of this Order and is located in the NW 1/4 of the SW 1/4 of Section 4, Township 4 South, Range 68 West, in the City and County of Denver, Colorado.
5. On February 2, 1990, Respondent submitted a Notification of Hazardous Waste Activity form (EPA Form 8700-12) to the CDPHE as a one-time generator. The Facility was assigned EPA Identification Number COD031992225.
6. On December 29, 1992, Respondent filed a subsequent Notification of Hazardous Waste Activity requesting that EPA ID Number COD031992225 be reactivated. The Facility was reassigned EPA Identification Number COD031992225 as a Large Quantity Generator.
7. On November 18, 1993, Respondent changed the Facility status to Conditionally Exempt Generator.
8. Between 1962 and approximately 1980, perchloroethylene ("PCE") was delivered to the Facility by truck. From approximately 1980 and early 1995, PCE was delivered to the Facility by rail. PCE was stored in three 2,500-gallon aboveground storage tanks ("ASTs") located outside near the southwest side of the Facility building. The PCE was dispensed by way of a pumping system in the warehouse and then by hose into tanker trucks and drums.
9. Between approximately 1980 and 1995, PCE was stored in one 15,000-gallon AST located outside the south side of the Facility building.
10. Since approximately March, 1995, the Facility has been receiving PCE in containers that are transported offsite for transfer directly into dry cleaning machines. The empty containers are returned to the Facility before they are shipped back to the supplier.
11. On May 16, 2003, CDPHE inspectors conducted an inspection of the Facility. Katzson was not generating hazardous waste for offsite shipment at the time of inspection.

B. Historical Assessment Information:

12. On October 9, 1992, a petroleum Underground Storage Tank (UST) was excavated and removed from the Facility. The UST was located adjacent to the former location of three (3) ASTs that previously were used to store PCE.

13. On October 15, 1992, Environment and Ecology, Incorporated, on behalf of the United States Environmental Protection Agency's Emergency Response Branch, collected a groundwater sample from the open UST excavation. Analytical results indicated that the groundwater sample contained 154,000 ug/l PCE. Subsequent to UST removal, soil from the UST excavation was analyzed and disposed of offsite as hazardous waste. Soil and liquid from the bottom of the UST excavation were analyzed, and chlorinated volatile organic compounds were detected in the samples.

14. Between 1992 and 1994, subsurface investigations conducted at the Facility confirmed the presence of chlorinated volatile organic chemicals "VOCs" in soil and groundwater.

15. In August 1993, three monitoring wells and two soil borings were installed at the Facility. Soil samples indicated that there were low levels of PCE in the soil. Groundwater samples collected from two of the monitoring wells (MW-1A and MW-3A) indicated that PCE and its breakdown products were present in groundwater beneath the Facility. Concentrations of PCE in wells MW-1A and MW-3A were 7ug/l and 380 ug/l, respectively. Well MW-3A also had concentrations of trichloroethylene (TCE) and 1, 2-dichloroethene (1, 2-DCE) at concentrations above Colorado groundwater standards of 580 ug/l and 1,500 ug/l, respectively. A groundwater sample could not be collected from the well closest to the former UST and ASTs (MW-2A) because it was dry at the time of sampling.

16. On March 31, 1994, a second round of groundwater samples was collected from the onsite monitoring wells. Monitoring well (MW-2A) contained only a small amount of recharged groundwater after purging. The concentration of PCE detected in the sample from MW-2A was 1,800 ug/l. The PCE concentrations in the remaining onsite wells (MW-1A and MW-3A) were 12ug/l and 80 ug/l, respectively. Wells MW-2A and MW-3A also had concentrations of PCE breakdown products and compounds associated petroleum hydrocarbons above Colorado groundwater standards.

17. Between April 1994, and October 1995, the Metro Wastewater Reclamation District collected several water samples from the sewer manhole in Vallejo Street, which samples contained elevated concentrations of PCE and its breakdown products. The main sewer line in Vallejo Street is set into the bedrock, which is below the top of groundwater in the area.

18. On May 15, 1995, a soil gas survey was conducted at the Facility. Soil gas results ranged from 3.1 to 224 parts per million ("ppm") total hydrocarbons.

19. In a work plan dated January 22, 1996, submitted to the Colorado Department of Public Health and Environment (CDPHE), Respondent proposed a subsurface investigation in the vicinity of the former aboveground PCE storage tanks, the former underground petroleum storage tank, and the sewer line beneath Vallejo Street to further delineate the nature and extent of contamination at the Facility. The work plan also proposed quarterly sampling of three onsite



monitoring wells, to be conducted in conjunction with groundwater monitoring at the adjacent G&K Services Facility. In a letter dated March 8, 1996, CDPHE requested clarifications to the work plan. The requested clarifications were provided by Camp Dresser & McKee Inc. (CDM) in an April 2, 1996 letter to CDPHE.

20. Information submitted to CDPHE by the responsible party for a nearby facility, G&K Services, documented the presence of PCE in groundwater in the vicinity of West 12<sup>th</sup> Avenue and Umatilla Street, in Denver.

21. In a letter dated December 22, 2000, the City and County of Denver requested that CDPHE take action to delineate the extent of known releases in the area and to evaluate potential sources of PCE detected near West 12<sup>th</sup> Avenue and Umatilla Street, approximately 1,000 feet north of the Facility.

22. In a letter dated January 11, 2001, CDPHE requested that Respondent submit a new work plan to delineate the full extent of groundwater contamination originating from the Facility. Representatives of CDPHE and Respondent were unable to reach an agreement with regard to potential future investigation activities at the Facility.

23. The nature and extent of soil and groundwater contamination originating from the Facility has not been delineated.

24. Certain wastes and constituents disposed at the Facility and off-site from the Facility are hazardous wastes or hazardous constituents. The hazardous wastes and hazardous constituents that were disposed at Respondent's Facility have not been remediated and continue to release into the environment.

25. These wastes and constituents were discharged at or on the Facility, and the waste and/or constituents have entered the environment and/or discharged into groundwater and soil.

26. Respondent has been and is the owner and operator of the Facility that has operated under interim status subject to § 3005(e) of RCRA and 6 CCR 1007-3, Part 265.

27. Respondent's Facility is a Treatment, Storage, and Disposal Facility (TSDF) under 6 CCR 1007-3, Part 265.

28. There is or has been a release of hazardous waste or hazardous constituents into the environment at or from the Facility. This includes a plume or plumes of chlorinated VOCs in soil and groundwater at the Facility and PCE and its breakdown products in groundwater underneath the Facility.

29. The undersigned EPA officials have been properly delegated the authority to make determinations and issue orders pursuant to § 3008 and have determined that hazardous waste is present at the Facility and that the presence of hazardous waste at the Facility and the release of hazardous waste from the Facility require corrective action.

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

## VI. ORDER

Pursuant to § 3008(h) of RCRA, 42 U.S.C. § 6928(h), Respondent agrees to and is hereby ordered to perform the work required by this Order in the manner and by the dates specified herein. All work undertaken pursuant to this Order shall be performed in a manner consistent with 6 CCR 1007-3 and RCRA and other applicable Federal, state, and local laws and regulations, applicable EPA guidance, and this Order.

Specifically excepted from this Order is any off-site work where the data characterization indicates that commingled contamination exists with a party not subject to this Order.

## VII. SUBMITTAL REQUIREMENTS

Two copies of each document required to be submitted pursuant to this Order shall be hand delivered, sent by certified mail, return receipt requested, or by overnight express mail or courier to the Project Managers. Only one original of the Quarterly Progress Reports shall be submitted.

## VIII. WORK TO BE PERFORMED

### A. RCRA Facility Investigation

1. Within forty-five (45) days of the effective date of this order, the Facility shall implement the work defined in the attached RCRA Facility Investigation Work Plan ("Work Plan") (Attachment 1). The work in the Work Plan serves as the RCRA Facility Investigation (RFI). Per Section XIV, Sampling and Data Document Availability, Respondent shall provide EPA seven (7) days written and forty-eight (48) hours verbal notice prior to any field work (sampling, well installation, ground water level measurements, etc.) to allow EPA oversight of such work and take split samples if it so chooses.
2. Within thirty (30) days of the completion of the work defined in the attached Work Plan, the Respondent will submit a Well Construction Completion Report which details the well installation and development. This report should include, but not be limited to, copies of the well logs, field notes, well development and purging method, survey results, well permits, ground water levels, manifests and other disposal records for management of investigation derived wastes, chain-of-custody forms for samples collected, and photographs of the cores and well installation procedures.
3. Respondent will continue to perform groundwater level measurements and quality sampling analysis in accordance with the attached work plan, or until the parties determine that sufficient data has been collected for purposes of completing the CMS. The results and associated data quality assurance and quality control (QA/QC) for the first and subsequent sampling events will be submitted in the quarterly progress report, as defined in Section XI of this Order, as the final results are received by Respondent.

4. Respondent shall develop an RFI Summary Report to be submitted within sixty (60) days following the end of the initial, quarterly, and semi-annual groundwater sampling and water level testing. The RFI Summary Report shall consist of the following:

a. Analysis and Summary of the RFI

***The RFI shall be designed and implemented to ensure full and complete characterization of the nature and extent of contamination due to releases of hazardous waste, hazardous constituents, and other contaminants of concern at and from the Facility to allow assessment of risks from these releases to human and ecological receptors.***

Respondent shall prepare and submit to EPA for approval an analysis and summary of the RFI and its results. The objective is to ensure that the investigative data collected pursuant to the RFI Work Plan are sufficient in quality and quantity to describe the nature and extent of contamination, characterize potential pathways of contaminate migration, identify actual or potential human and ecological receptors, and develop alternatives for analysis during the Corrective Measures Study. The RFI Summary shall include a section addressing site characterization and transport of contaminants and a section addressing status with respect to environmental indicators.

b. Data Analysis

1. Respondent shall analyze all data collected pursuant to this Order and prepare reports on the source, nature, extent, and rate of migration of releases of COPC on and/or migration from the Facility, including sources and migration pathways.

2. The reports shall describe the extent of all releases of contaminants in relation to site or background levels at (i) the source; (ii) the boundaries of the Facility; and (iii) off-site locations, if any, to which the releases have migrated. Background groundwater values for all applicable COPCs described in the RFI Work Plan shall be obtained from analyses of water extracted from wells upgradient, not affected by known releases, from contaminant sources at the Facility.

3. The reports shall provide the technical reference from which applicable risk-based values or standards will be obtained to evaluate various media at the Facility.

4. The investigations shall be designed to provide data of adequate technical quality to support the development and evaluation of the corrective measures alternatives during the Corrective Measures Study.

5. EPA will review the RFI report and notify the Respondent in writing of EPA's approval/disapproval, or modification in accordance with Section VIII, subsections H and I, Agency Approvals/Proposed Contractor. If additional data collection is necessary, EPA will notify the Respondent and require submittal of an Interim Measures Work Plan.

## B. Interim Measures

1. Respondent may submit an Interim Measures Work Plan at any time during implementation of this Order.
2. EPA may require Respondent to submit additional Interim Measures Work Plans based on the RCRA Facility Investigation Summary Report and a determination that specific interim measures are appropriate to achieve stabilization to control or abate threats to human health and/or the environment from releases of hazardous waste or hazardous constituents while long-term corrective measures alternatives are being evaluated. EPA shall provide written notice of the requirement to submit an Interim Measures (IM) Work Plan and explain in such notice its determination. Respondent shall submit Interim Measures Work Plans within thirty (30) days following notification by EPA.
3. Each IM Work Plan is subject to EPA approval pursuant to the requirements of this Order.
4. Within fifteen (15) calendar days of receipt of EPA's written approval or approval with modifications, Respondent shall begin to implement the interim measure(s) in accordance with the procedures and schedules contained in the IM Work Plan as approved and shall complete the Interim Measures in accordance with the schedule contained in the Work Plan.
5. Within fifteen (15) calendar days of implementation of each IM Work Plan, Respondent shall provide a written report (Interim Measures Implementation Report) to EPA detailing and confirming the completion of the activities conducted pursuant to the IM Work Plan.
6. Respondent shall make each IM Work Plan available to the public in the local repository established pursuant to Section X, Public Participation.

## C. Imminent Threat

1. In the event Respondent identifies an imminent or potential threat to human health and/or the environment including, but not limited to, newly identified releases of hazardous waste and/or hazardous constituents, or solid waste management units, Respondent shall notify the EPA project manager verbally within twenty-four (24) hours of discovery and notify EPA in writing within ten (10) days of such discovery summarizing the immediacy and magnitude of the potential threat(s) to human health and /or the environment.
2. If EPA identifies an immediate or potential threat to human health and/or the environment, discovers new releases of hazardous waste and/or hazardous constituents, or discovers new solid waste management units not previously identified, EPA will notify Respondent in writing.
3. If EPA determines that immediate action is required, the EPA Project Manager may orally require Respondent to act prior to Respondent's receipt of EPA's written notification, including the taking of immediate action to abate the threat or harm. EPA shall provide written notice within ten (10) days of oral notification.
4. If EPA notifies Respondent that the imminent threat must be addressed by implementation of an interim measure, within fifteen (15) days of receiving EPA's written notification that interim

measures is required, Respondent shall submit to EPA an IM Work plan in accordance with the IM.

#### D. Corrective Measures Study

1. Within forty-five (45) days of EPA's approval of the final RFI Report, or the Respondent's receipt of a written request from EPA, Respondent shall submit a Corrective Measures Study Work Plan (CMS Work Plan) to EPA in accordance with Section VIII, subsections H and I, Agency Approvals/Proposed Contractor. The CMS Work Plan shall provide, at a minimum, the following information:

- a. A description of the general approach to the CMS and potential remedies;
- b. A statement of the overall objectives of the study;
- c. The specific plans for evaluating remedies to ensure compliance with Media Cleanup Standard(s) ("MCSs") at the points of compliance;
- d. The proposed format for the presentation of information;
- e. A justification for each corrective measure that Respondent proposes to study to achieve the MCS(s); and

2. Respondent shall submit a CMS Report to EPA for approval in accordance with the EPA approved CMS Work Plan schedule. EPA will review the CMS Report and notify the Respondent in writing in accordance with Section VIII, subsections H and I, Agency Approvals/Proposed Contractor/Additional Work.

3. The CMS Report shall contain, at a minimum, the following information for each corrective measure studied:

- a. An evaluation of any treatability studies performed;
- b. An evaluation of the overall protectiveness of human health and of the environment;
- c. Ability to attain the MCS(s) at the point(s) of compliance;
- d. Ability to control the source(s) of release(s);
- e. An estimate and analysis of quantity, volume, and/or toxicity of the waste generated, including, but not limited to, contaminated soil, sludge, and groundwater;
- f. methods to minimize the volume, toxicity, and/or mobility of waste expected to be generated by the measure;
- g. An assessment of how institutional and legal requirements including federal, State, or local environmental or public health standards, regulations, and/or ordinances, ***compliance with the Colorado Covenant Law***, will affect the design, operation, and timing of each corrective action alternative and how legal requirements will be met;
- h. An assessment of short-term and long-term reliability and effectiveness, including, but not limited to, the methodology used to estimate the short-term and long-term reduction of toxicity, mobility, or volume of waste and the resulting estimate;
- i. An evaluation of ease of implementation;

- j. An estimate of the cost, including capital and annual operation and maintenance costs and the period Respondent expects the measure to be operational;
- k. A recommendation as to which corrective measure(s), in the Respondent's opinion, is the most appropriate, and the rationale for such recommendation.

4. In accordance with Section X, Public Participation, EPA will provide the public with an opportunity to submit written and/or oral comments and an opportunity for a public meeting regarding EPA's proposed cleanup standards and remedy for the Facility.

E. Laboratory, Bench-Scale, and Field Pilot-Scale Studies

- 1. Respondent may conduct, with prior EPA approval, laboratory and/or bench-scale studies and field and pilot-scale testing to determine the applicability of a corrective measure technology or technologies to site conditions.
- 2. Respondent shall provide EPA with a work plan defining proposed laboratory or bench scale studies and field and pilot-scale testing.
- 3. Respondent shall analyze the technologies based on literature review, vendor contacts, and past experience, to determine the testing requirements.

F. Corrective Measures Implementation Work Plan (CMI Work Plan)

- 1. After Respondent submits a CMS Summary Report with the proposed final corrective measure alternative(s) to EPA for review, EPA shall tentatively identify the appropriate corrective measure alternative(s) to be implemented based on the evaluation criteria in Section VIII, subsection D.3.
- 2. Following EPA's tentative identification of the corrective measure(s) to be performed, EPA will conduct a public comment period, in accordance with RCRA and EPA's "RCRA Public Participation Manual," to provide the public with the opportunity to submit comments to EPA regarding the corrective measure(s) identified by EPA. EPA will issue a public notice in a major local newspaper, or through other appropriate means determined appropriate by EPA, to notify the public of the comment period. EPA will issue and make available to the public for review and comment a Statement of Basis describing EPA's proposed corrective measure(s) and the rationale and basis for such corrective measure(s). EPA will consider public comments submitted regarding the proposed corrective measure(s).
- 3. After the public comment period, EPA shall select the corrective measure(s) to be implemented and notify Respondent of EPA's decision in a notification letter, entitled "EPA Decision Document." The EPA Decision Document will describe the rationale and basis for the corrective measure(s) selected with regard to each of the evaluation criteria in Section VIII, subsection D.3, and will include EPA's response to all significant comments made during the public comment period.

4. Respondent shall provide a Corrective Measures Implementation (CMI) Work Plan with implementing schedules after receiving the EPA Decision Document.
  - a. The CMI Work Plan shall be developed in accordance with relevant EPA guidance including, but not limited to, the ANPR and the Final CAP.
  - b. The CMI Work Plan shall be submitted to EPA ninety (90) days following the receipt of the EPA Decision Document. The Work Plan shall contain initial conceptual design plans and specifications. The initial conceptual design plan with specifications shall clearly describe the size, shape, form, and content of the proposed corrective measure(s); conceptual drawings and schematics; key components required; and the procedures and schedules required to implement the corrective measure(s). The plan shall also contain an operation and maintenance plan, a final design and specification plan, a construction work plan, and a health and safety plan.
    - i. The operation and maintenance plan shall contain procedures for performing operations, conducting long-term maintenance, and monitoring the performance of the corrective measure(s). The performance monitoring section of the plan shall be designed to identify ways to maximize the efficiency and cost-effectiveness of the corrective measure(s) and to ensure protection of potential human or ecologic receptors. Performance monitoring tasks shall accommodate changing concentrations and distribution of COPC's. Any modifications of the operations and management plan must be reviewed and approved by EPA.
    - ii. A final design plan with specifications shall contain drawings and specifications needed to construct the corrective measure(s). Some of the elements that may be featured in the plan include: general site plans, process flow diagrams, mechanical drawings, electrical drawings, structural drawings, piping and instrumentation diagrams, excavation and earthwork drawings, equipment lists, site preparation and field work standards, and preliminary specifications for equipment and material.
    - iii. The construction work plan shall contain procedures that will accommodate temporal variations including seasonal changes such as temperature and precipitation and nearby groundwater usage, etc., for the proposed corrective measures. The plan shall discuss overall management strategies, construction of quality assurance/quality control procedures, and contain schedules for constructing the corrective measure(s).
    - iv. The health and safety plan shall include: a description of the goals and objectives of the plan in conjunction with insuring the health and safety of on-site personnel and visitors; a list of COPCs which may be encountered by field personnel; a description of personal protection/monitoring equipment and procedures; and a list of Facility organization and emergency contacts. EPA will not approve the health and safety plan, but will review the plan to confirm that all necessary elements are included.

- c. The CMI Work Plan shall contain a plan to document the achievement of cleanup goals.
- d. The CMI Work Plan shall contain a plan to identify necessary or appropriate future land use restrictions, if any, and the method proposed to achieve and maintain them and to provide ongoing effective public notice of such. The Work Plan shall contain a schedule to implement and maintain land use restrictions.
- e. Respondent shall make the CMI Work Plans available to the public in the local repository established pursuant to this Order.

#### G. CMI Summary Report

- 1. Respondent shall submit a draft CMI Summary Report to EPA for review and approval sixty (60) days following the completion of the activities provided in the CMI Work Plan.
- 2. The CMI Summary Report shall: (a) document the criteria used to evaluate the achievement of final cleanup goals at the Facility, justify shutting down the implementing corrective measures, and justify eliminating monitoring activities at the Facility; (b) include a summary of work completed; analytical data; and monitoring results; and, (c) document how the clean up goals have been achieved.
- 3. Following EPA's review of the CMI Summary Report a public comment period will be conducted.
- 4. EPA shall provide a written approval/disapproval of the CMI Summary Report to Respondent following the agency's final review of the report.
- 5. Following EPA's review of the CMI Summary Report and EPA's response to comments made during the public comment period, EPA will provide written comments on the CMI Summary Report to Respondent.
- 6. Respondent shall modify and resubmit the CMI Summary Report within fifteen (15) days of receipt of EPA's written comments, if necessary.

#### H. Agency Approvals

- 1. EPA will provide Respondent with its written comments or approval, conditional approval, approval with modification, rejection as not acceptable, disapproval with comments and/or modifications, or notice of intent to draft and approve, for any work plan, report (except progress reports), specification or schedule submitted pursuant to or required to be submitted for EPA approval pursuant to this Order.
- 2. EPA may reject in writing and not comment on any submittal which EPA determines is not acceptable. Submittal of a document which is not acceptable is a violation of this Order, unless such document is resubmitted prior to or on the due date for each submittal and EPA determines that the resubmitted document is acceptable.



3. Respondent shall revise any work plan, report, specification or schedule in accordance with EPA's written comments. Respondent shall submit to EPA any revised submittals within fifteen (15) calendar days upon receipt of EPA written comments or in accordance with a due date specified by EPA. Revised submittals are subject to EPA approval, approval with conditions, rejection as not acceptable, disapproval with comments and/or modifications, or notice of intent to draft and approve.
4. Any report, work plan, specification or schedule approved by EPA, including those drafted by EPA, shall be automatically incorporated into this Order upon written approval.
5. Prior to written approval, no report, work plan, specification or schedule shall be construed as approved and final, except as otherwise expressly provided in the Imminent Threat provisions of this Order. Oral advice, suggestions, or comments given by EPA will not constitute an official approval, nor shall any oral approval or oral assurance of approval be considered binding on either party, except as expressly provided in the Imminent Threat provisions of this Order.
6. Except as otherwise set forth herein, within thirty (30) calendar days of Respondent's receipt of written approval, or approval with modifications of any Work Plan, or receipt of a document drafted by EPA after failure by Respondent to draft an approvable document, Respondent shall commence work to implement the tasks required by the Work Plan in accordance with the standards, specifications and schedules set forth in the Work Plan approved by EPA.
7. Except as otherwise set forth herein, within thirty (30) calendar days of receipt of EPA's disapproval of a report, Respondent shall amend and submit a revised report, unless an extension is requested by Respondent and granted by EPA. EPA shall review all draft or final reports or Work Plans, and notify Respondent in writing of EPA's determination regarding the report, work plan or any part thereof.

I. Proposed Contractor/Consultant

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 cleanup. Respondent's contractor or consultant shall have the technical expertise sufficient to adequately perform all aspects of the work for which it is responsible. Within fourteen (14) days of the effective date of this Order, Respondent shall notify the EPA Project Coordinator in writing of the name, title, and qualifications of the engineer, hydrologist, geologist, or environmental scientist and of any contractors or consultants and their personnel to be used in carrying out the terms of this Order. Respondent shall identify whether any contractor is on the List of Parties Excluded from Federal Procurement or Non-Procurement Programs. EPA reserves the right to disapprove Respondent's contractor and/or consultant at any time during the period that this Order is effective. If EPA disapproves a contractor or consultant, Respondent must, within thirty (30) days of receipt from EPA of written notice of disapproval, notify EPA, in writing, of the name, title, and qualifications of any replacement. EPA's disapproval shall not be subject to review under Section XXII, Dispute Resolution.

IX. QUALITY ASSURANCE

- A. All sampling and analytical activities undertaken pursuant to this Order shall follow EPA-approved quality assurance, quality control, and chain-of-custody procedures, which procedures shall be part of the Work Plan.
- B. In addition, Respondent shall, except to the extent alternate arrangements have been made with and approved by EPA:
1. follow EPA QA guidance for sampling and analysis contained in the document entitled "U.S. EPA Region VIII Minimum Requirements for Field Sampling Activities", September 1996;
  2. adhere to the Region 8 Hazardous Waste Enforcement Program Quality Assurance Project Plan, dated August 2000;
  3. consult with the EPA Project Manager in advance regarding which laboratories will be used by Respondent and use its best efforts to ensure that EPA personnel and EPA-authorized representatives have reasonable access to the laboratories and personnel used for analyses;
  4. require that laboratories used by Respondent for analyses perform such analyses according to EPA methods as found in "Test Methods for Evaluating Solid Wastes," Third Edition (SW-846), EPA Method TO-15. If methods other than SW-846 or TO-15 are proposed to be used, Respondent shall submit all alternative protocols to EPA at least forty five (45) calendar days prior to the commencement of analyses for EPA approval;
  5. require that laboratories used by Respondent for analyses have a quality assurance/quality control program at least equal to that which is followed by EPA. The lab must have quality control system consistent with the requirements of EPA Requirements for Quality Management Plans, EPA QA/R-2, dated March 2001, and ANSI/ASQC E4-2004. As part of such a program, and upon written request by EPA, such laboratories shall perform analyses of samples provided by EPA to demonstrate the quality of the analytical data; and
  6. use Data Quality Assessments" A Reviewer's Guide, EPA QA/G-9R, dated February 2006, and Guidance on Environmental Data Verification and Data Validation, EPA QA/G-8, dated November 2002, to evaluate all data to be collected during the RFI. This methodology shall be provided to EPA as part of the sampling plan contained in the Work Plan and shall be updated as necessary.
- C. Existing data shall be evaluated by EPA for adequacy based to support a RFI Report analyses and conclusions, and development and evaluation of the corrective measures alternatives. Guidance documents on data quality analysis and data collection methods shall be used by EPA as guidelines to assess the quality of existing data, with EPA's best scientific and engineering judgments used as the determining factor on data quality.

X. **PUBLIC PARTICIPATION**

- A. Respondent shall develop a Public Participation Plan in consultation with EPA and using the "RCRA Public Participation Manual", September 1996, as guidance and submit the plan to EPA within sixty (60) days of the effective date of this Order. The public participation plan shall be designed to accurately assess the community's concerns, obtained through community interviews and identify ways to address those concerns.
- B. The following activities must be addressed in the Public Participation Plan:
1. Creating, using, and updating a mailing list of the affected community and other stakeholders;
  2. Providing the name and telephone number of a person who may be contacted and is responsible for providing information concerning the implementation of this Order to the public;
  3. Maintaining an easily accessible repository (such as in a local town hall or public library) for documents relating to the Order, including approved work plans and reports; and
  4. Informing the public when significant decisions are made, and when RFI Summary Reports have been submitted to EPA and placed in the locally established repository and at other important points in the process.
- C. All activities, work products, and information material for public release developed pursuant to this Order, will be submitted by Respondent to EPA for review at least fourteen (14) days prior to public release and implementation. Respondent shall provide information to the public and conduct public activities following the receipt of EPA approval.

XI. **QUARTERLY PROGRESS REPORTS**

- A. The Quarterly Progress Reports are required to be sent to EPA no later than the tenth (10<sup>th</sup>) day of January, April, July, and October and shall at a minimum:
1. describe the actions, progress, and status of projects which have been undertaken pursuant to this Order;
  2. identify any requirements under this Order that were not completed in a timely manner and problem areas or anticipated problem areas affecting compliance with the Order;
  3. describe the projects completed during the prior quarter, as well as the activities scheduled for the next quarter;
  4. describe and estimate the percentage of the studies completed;
  5. include a description and summaries of all findings;

6. describe actions being taken to address and rectify problems;
7. identify changes in key personnel during the reporting period; and
8. include copies of the results of sampling and tests conducted and other data generated pursuant to work performed under this Order since the last Progress Report. Respondent may also submit data that has been validated and confirmed by Respondent to supplement any prior submitted data. Updated, validated, and confirmed data shall be included with the RFI Report if not delivered before.

XII. **COST ESTIMATES AND ASSURANCES OF FINANCIAL RESPONSIBILITY FOR COMPLETING THE WORK**

A. Estimated Cost of the Work

1. Respondent shall submit for EPA approval within five business days of the effective date of this Order, an initial Estimated Cost of the Work to be Performed under Section VIII.
2. Concurrent with the submission of additional Work Plan(s) required under Section VIII, Work to Be Performed, Respondent shall submit a revised Estimated Cost of the Work.
3. Respondent shall annually adjust the Estimated Cost of the Work for inflation within thirty (30) days after the close of Respondent's fiscal year until the Work required by this Consent Order is completed. In addition, Respondent shall adjust the Estimated Cost of the Work if any other condition increases the cost of the Work to be performed under this Consent Order.
4. Respondent shall submit each Estimated Cost of the Work to EPA for review. EPA will review each cost estimate and notify Respondent in writing of EPA's approval, disapproval, or modification of the cost estimate.

B. Assurances of Financial Responsibility for Completing the Work

1. In order to secure the full and final completion of the Work in accordance with this Consent Order, Respondent shall establish and maintain financial assurance for the benefit of the EPA in the amount of the most recent Estimated Cost of the Work. Respondent may use one or more of the financial assurance forms generally described in Paragraphs a - c below. Any and all financial assurance instruments provided pursuant to this Consent Order shall be satisfactory in form and substance as determined by EPA.
  - a. A trust fund established for the benefit of EPA, administered by a trustee who has the authority to act as a trustee under Federal or State law and whose trust

operations are regulated and examined by a Federal or State agency and that is acceptable in all respects to the EPA. The trust agreement shall provide that the trustee shall make payments from the fund as the Director of the RCRA/CERCLA Technical Enforcement Program shall direct in writing (1) to reimburse Respondent from the fund for expenditures made by Respondent for Work performed in accordance with this Consent Order, or (2) to pay any other person whom the Director of the RCRA/CERCLA Technical Enforcement Program determines has performed or will perform the Work in accordance with this Consent Order. The trust agreement shall further provide that the trustee shall not refund to the grantor any amounts from the fund unless and until EPA has advised the trustee that the Work under this Consent Order has been successfully completed.

b. A surety bond unconditionally guaranteeing performance of the Work in accordance with this Consent Order or guaranteeing payment at the direction of EPA into a standby trust fund that meets the requirements of the trust fund in Paragraph a above. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal Bonds as set forth in Circular 570 of U.S. Department of the Treasury.

c. An irrevocable letter of credit, payable at the direction of Director of the RCRA/CERCLA Technical Enforcement Program, into a standby trust fund that meets the requirements of the trust fund in Paragraph a above. The letter of credit shall be issued by a financial institution (i) that has the authority to issue letters of credit, and (ii) whose letter-of-credit operations are regulated and examined by a Federal or State agency.

2. Respondent shall select and submit for EPA approval within five business days of the effective date of this Order, an initial financial assurance instrument pursuant to Paragraph 1 of this subsection. Within ten (10) days after EPA approval, Respondent shall execute or otherwise finalize all instruments or other documents required to make the selected financial assurance legally binding and such financial assurance shall be fully effective. Respondent shall submit all executed and/or otherwise finalized instruments or other documents to EPA within thirty days after the effective date of this Consent Order.

3. If Respondent seeks to establish financial assurance by using a surety bond or a letter of credit, Respondent shall at the same time establish, and thereafter maintain, a standby trust fund, which meets the requirements of Paragraph 1.a. above, into which funds from the other financial assurance instrument can be deposited, if the financial assurance provider is directed to do so by EPA, pursuant to Paragraph 11.b.

4. Respondent shall submit all financial assurance instruments and related required documents by certified mail to the Financial Analyst, RCRA/CERCLA Technical

Enforcement Program. Copies shall also be sent to the EPA Project Manager and the State.

Daniela Golden  
Financial Analyst,  
RCRA Technical Enforcement Program  
U.S. EPA, Region 8  
999 – 18<sup>th</sup> St., Suite 300 (ENF-RC)  
Denver, Colorado 80020-2466

Linda Jacobson,  
Project Manager  
RCRA Technical Enforcement Program  
U.S. EPA, Region 8  
999 – 18<sup>th</sup> St., Suite 300 (ENF-RC)  
Denver, Colorado 80020-2466

Colleen Brisnehan  
Project Manager  
4300 Cherry Creek Dr. South  
Denver, Colorado 80246-1530

5. Respondent may combine more than one mechanism to demonstrate financial assurance for the Work to be performed in accordance with this Consent Order; except that, mechanisms guaranteeing performance rather than payment may not be combined with other instruments.

6. If at any time EPA determines that a financial assurance instrument provided pursuant to this Section is inadequate, or no longer satisfies the requirements set forth or incorporated by reference in the Section, whether due to an increase in the estimated cost of completing the Work or for any other reason, EPA shall so notify Respondent in writing. If at any time Respondent becomes aware of information indicating that any financial assurance instrument provided pursuant to this Section is inadequate or no longer satisfies the requirements set forth or incorporated by reference in the Section, whether due to an increase in the estimated cost of completing the Work or for any other reason, Respondent shall notify EPA in writing of such information within ten days. Within thirty days of receipt of notice of EPA's determination, or within thirty days of Respondent's becoming aware of such information, as the case may be, Respondent shall obtain and present to EPA for approval a proposal for a revised or alternative form of financial assurance listed in Paragraph 1 above that satisfies all requirements set forth or incorporated by reference in this Section. In seeking approval for a revised or alternative form of financial assurance, Respondent shall follow the procedures set forth in Paragraph 12.b. below.

7. Respondent's inability or failure to establish or maintain financial assurance for completion of the Work shall in no way excuse performance of any other requirements of this Consent Order, including, without limitation, the obligation of Respondent to complete the Work in strict accordance with the terms of this Consent Order.

8. Any and all financial assurance instruments provided pursuant to Paragraphs 1.b., or 1.c., shall be automatically renewed at the time of their expiration unless the financial assurance provider has notified both the Respondent and the Project Manager at least one hundred and twenty days prior to expiration, cancellation or termination of the instrument of a decision to cancel, terminate or not renew a financial assurance instrument. Under the terms of the financial assurance instrument, the one hundred and twenty days will begin to run with the date of receipt of the notice by both the Project Manager and the Respondent. Furthermore, if Respondent has failed to provide alternate financial assurance and obtain written approval for such alternate financial assurance within ninety days following receipt of such notice by both Respondent and Project Manager, the Project Manager will so notify the financial assurance provider in writing prior to the expiration of the instrument, and the financial assurance provider shall immediately deposit into the standby trust fund, or a newly created trust fund approved by EPA, the remaining funds obligated under the financial assurance instrument for the performance of the Work in accordance with this Consent Order.

#### 9. Performance Failure

a. In the event that EPA determines that Respondent (i) has ceased implementation of any portion of the Work, (ii) is significantly or repeatedly deficient or late in its performance of the Work, or (iii) is implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA may issue a written notice ("Performance Failure Notice") to both the Respondent and the financial assurance provider of Respondent's failure to perform. The notice issued by EPA will specify the grounds upon which such a notice was issued and will provide the Respondent with a period of ten days within which to remedy the circumstances giving rise to the issuance of such notice.

b. Failure by the Respondent to remedy the relevant Performance Failure to EPA's satisfaction before the expiration of the ten-day notice period specified in Paragraph 11.a. shall trigger EPA's right to have immediate access to and benefit of the financial assurance provided pursuant to Paragraphs 1.a, 1.b, or 1.c.. EPA may at any time thereafter direct the financial assurance provider to immediately (i) deposit into the standby trust fund, or a newly created trust fund approved by EPA, the remaining funds obligated under the financial assurance instrument (ii) or arrange for performance of the Work in accordance with this Consent Order.

c. If EPA has determined that any of the circumstances described in clauses (i), (ii), or (iii) of Paragraph 11.a. have occurred, and if EPA is nevertheless unable after reasonable

efforts to secure the payment of funds or performance of the Work in accordance with this Consent Order from the financial assurance provider pursuant to this Consent Order, then, upon receiving written notice from EPA, Respondent shall within ten days thereafter deposit into the standby trust fund, or a newly created trust fund approved by EPA, in immediately available funds and without setoff, counterclaim, or condition of any kind, a cash amount equal to the estimated cost of the remaining Work to be performed in accordance with this Consent Order as of such date, as determined by EPA.

d. Respondent may invoke the procedures set forth in Section XXII, Dispute Resolution, to dispute EPA's determination that any of the circumstances described in clauses (i), (ii), or (iii) in Paragraph 11.a. have occurred. Invoking the dispute resolution provisions shall not excuse, toll or suspend the obligation of the financial assurance provider, under Paragraph 11.b. of this section, to fund the trust fund or perform the Work. Furthermore, notwithstanding Respondent's invocation of such dispute resolution procedures, and during the pendency of any such dispute, EPA may in its sole discretion direct the trustee of such trust fund to make payments from the trust fund to any person that has performed the Work in accordance with this Consent Order until the earlier of (i) the date that Respondent remedies, to EPA's satisfaction, the circumstances giving rise to EPA's issuance of the relevant Performance Failure Notice or (ii) the date that a final decision is rendered in accordance with Section XXII, Dispute Resolution, that Respondent has not failed to perform the Work in accordance with this Consent Order.

## 12. Modification of Amount and/or Form of Performance Guarantee.

a. Reduction of Amount of Financial Assurance. If Respondent believes that the estimated cost to complete the remaining Work has diminished below the amount covered by the existing financial assurance provided under this Consent Order, Respondent may, at the same time that Respondent submits the annual cost adjustment, pursuant to Paragraph A.4. of this Section, or at any other time agreed to by EPA, submit a written proposal to EPA to reduce the amount of the financial assurance provided under this Section so that the amount of the financial assurance is equal to the estimated cost of the remaining Work to be performed. The written proposal shall specify, at a minimum, the cost of the remaining Work to be performed and the basis upon which such cost was calculated. In seeking approval of a revised financial assurance amount, Respondent shall follow the procedures set forth in Paragraph 12.b.(ii) of this Section. If EPA decides to accept such a proposal, EPA shall notify Respondent of its decision in writing. After receiving EPA's written decision, Respondent may reduce the amount of the financial assurance only in accordance with and to the extent permitted by such written decision. In the event of a dispute, Respondent may reduce the amount of the financial assurance required hereunder only in accordance with the final EPA Dispute Decision resolving such dispute. No change to the form or terms of any financial assurance provided under this Section, other than a reduction in amount, is authorized except as provided in Paragraph 12.b. below.



b. Change of Form of Financial assurance.

(i) If Respondent desires to change the form or terms of financial assurance, Respondent may, at the same time that Respondent submits the annual cost adjustment, pursuant to Paragraph A.4. of this Section, or at any other time agreed to by EPA, submit a written proposal to EPA to change the form of financial assurance. The submission of such proposed revised or alternative form of financial assurance shall be as provided in Paragraph (ii) below. The decision whether to approve a proposal submitted under this Paragraph 12. shall be made in EPA's sole and unreviewable discretion, and such decision shall not be subject to challenge by Respondent pursuant to the dispute resolution provisions of this Consent Order or in any other forum.

(ii) A written proposal for a revised or alternative form of financial assurance shall specify, at a minimum, the cost of the remaining Work to be performed, the basis upon which such cost was calculated, and the proposed revised form of financial assurance, including all proposed instruments or other documents required in order to make the proposed financial assurance legally binding. The proposed revised or alternative form of financial assurance shall satisfy all requirements set forth or incorporated by reference in this Section. EPA shall notify Respondent in writing of its decision to accept or reject a revised or alternative form of financial assurance submitted pursuant to this paragraph. Within ten days after receiving a written decision approving the proposed revised or alternative financial assurance, Respondent shall execute and/or otherwise finalize all instruments or other documents required in order to make the selected financial assurance legally binding in a form substantially identical to the documents submitted to EPA as part of the proposal, and such financial assurance shall be fully effective. Respondent shall submit all executed and/or otherwise finalized instruments or other documents required to make the selected financial assurance legally binding to the EPA RCRA/CERCLA Financial Analyst within thirty (30) days of receiving a written decision approving the proposed revised or alternative financial assurance, with a copy to the EPA RCRA Project Manager and the State Project Manager. EPA shall release, cancel or terminate the prior existing financial assurance instruments only after Respondent has submitted all executed and/or otherwise finalized new financial assurance instruments or other required documents to EPA.

c. Release of Financial Assurance. Respondent may submit a written request to the Project Manager that EPA release Respondent from the requirement to maintain financial assurance under this Section at such time as EPA and Respondent have both executed an "Acknowledgment of Termination and Agreement to Record Preservation and Reservation of Right" pursuant to Section XXV, Termination and Satisfaction of the Consent Order. The RCRA/CERCLA Financial Analyst shall notify both the Respondent and the provider(s) of the financial assurance that Respondent is released from all financial assurance obligations under this Consent Order. Respondent shall not release, cancel or terminate any financial assurance provided pursuant to this section except as provided in this paragraph or Paragraph 12.b.(ii) In the event of a dispute, Respondent may release, cancel, or terminate the financial assurance required hereunder only in accordance with a final administrative or judicial decision resolving such dispute.

### XIII. ON-SITE AND OFF-SITE ACCESS

A. Upon reasonable notice and at all reasonable times, EPA, and/or any authorized EPA representative shall be authorized by Respondent to enter and freely move about all property at the Facility during the effective dates of this Order for the purposes of, *inter alia*: interviewing Facility personnel and contractors regarding information relevant to the implementation of this Order; inspecting records, operating logs, and contracts related to this Order; conducting such tests, sampling or monitoring as EPA or its Project Manager deems necessary for the implementation of this Order; using a camera, sound recording, or other documentary type equipment verifying the reports and data submitted to EPA by Respondent; and any other activities necessary to properly review the progress of Respondent in carrying out the terms of this Order.

B. Respondent shall permit such persons to inspect and copy all files, photographs, documents, and other writings, including all sampling and monitoring data, which pertain to work undertaken pursuant to this Order. To the extent that such information is claimed by Respondent to be business confidential or proprietary, Respondent shall so advise EPA in writing, at the time of review or submittal, and 40 C.F.R. Part 2 procedures shall be followed. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege, the work-product protection or any other privilege recognized by federal law. If Respondent asserts such a privilege in lieu of providing documents, 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 privilege asserted by Respondent. However, no data, final documents, reports, or other information required to be created or generated pursuant to this Order shall be withheld on the grounds that they are privileged.

C. EPA shall provide Respondent with split samples of any samples taken by EPA if requested by Respondent.

D. To the extent that work required by this Order, or by any approved Work Plans prepared pursuant hereto, must be done on property not owned or controlled by Respondent, Respondent shall use its best efforts to obtain site access agreements from the present owner(s) of such property within thirty (30) days following transmittal of the Work Plan to EPA.

E. "Best efforts" shall include, at a minimum, a certified letter showing actual receipt from Respondent to the present owner(s) of such property requesting the execution of reasonable access agreements to permit Respondent and EPA and their authorized representatives to obtain access to such property.

F. Any such access agreement shall be incorporated by reference into this Order upon execution by Respondent and copies of fully executed access agreements shall be submitted to EPA with the next following Quarterly Progress Report.

G. In the event that agreements for access are not obtained within thirty (30) days of the date of receipt of Respondent's certified letter to the property owner, Respondent shall notify

EPA in writing within seven (7) days thereafter regarding both the efforts undertaken to obtain access and its failure to obtain such agreements. EPA may, at its discretion, assist Respondent in obtaining access.

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

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

#### XIV. SAMPLING AND DATA/DOCUMENT AVAILABILITY

- A. Unless notified by EPA in writing, Respondent shall submit to EPA the results of sampling and/or tests or other data generated by, or on behalf of Respondent, in the Quarterly Progress Reports. In addition, Respondent shall submit to EPA the results of all validated and confirmed sampling and/or tests or other data generated by, or on behalf of Respondent performed pursuant to this Order, with the RFI Report, if not before.
- B. Respondent shall notify EPA in writing at least seven (7) calendar days before conducting any well drilling, installation of equipment, or sampling. Respondent shall provide a reasonable amount of, or allow EPA or its authorized representatives to take, split samples of all samples collected by Respondent pursuant to this Order.
- C. Except as noted below, Respondent may assert a business confidentiality claim covering all or part of any information provided to EPA or its representatives pursuant to this Order. Any assertion of confidentiality shall be substantiated by Respondent when the assertion is made, or the right to assert the claim shall be waived. Information determined to be confidential shall be disclosed only to the extent permitted by 40 C.F.R. Part 2. If no confidentiality claim accompanies the information when it is provided, it may be made available to the public without further notice to Respondent. Physical or analytical data either generated and/or submitted pursuant to this Order cannot be claimed confidential and/or privileged.

#### XV. RECORD PRESERVATION

During the pendency of this Order and for a minimum of three (3) years from EPA approval of the CMI Summary Report, Respondent shall preserve all submittals and data generated and/or submitted in its possession or in the possession of its divisions, officers, directors, employees, agents, contractors, attorneys, successors and assigns which relate to performance under this Order or to hazardous waste management and/or disposal at the Facility. For a period of three (3) years from EPA approval of the CMI Summary Report, Respondent shall make such records available to EPA for inspection or copying or shall provide copies of any such records to EPA. Respondent shall notify EPA twenty (20) calendar days prior to the destruction of any such records and shall provide EPA with the opportunity to take possession of any such records.

XVI.

**PROJECT MANAGERS**

- A. On or before the effective date of this Order, EPA and Respondent shall designate Project Managers. Each Project Manager shall be responsible for overseeing the implementation of this Order. The EPA Project Manager shall be EPA's 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 to the Project Managers.
- B. The EPA Project Manager is:
- Linda Jacobson, RCRA Project Manager  
U.S. EPA Region VIII (8ENF-RC)  
999 18th Street, Suite 500  
Denver, Colorado 80202-2466
- C. The CDPHE Project Manager is:
- Colleen Brisnehan  
Project Manager  
4300 Cherry Creek Dr. South  
Denver, Colorado 80246-1530
- D. The Respondent's Project Manager is:
- Richard Right  
Katzson Brothers, Inc.  
960 Vallejo Street  
Denver, Co 80204
- E. The parties agree to provide at least seven (7) calendar days' notice prior to changing Project Managers.
- F. The absence of the EPA Project Manager from the Facility shall not be cause for the stoppage of work.

XVII.

**SUBMITTALS - COMMUNICATIONS**

- A. Unless otherwise specified, reports, notices, approvals, disapprovals, or other submittals relating to or required under this Order shall be in writing and shall be sent to the parties' respective Project Managers.
- B. 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 of such responsible corporate officer. A responsible corporate officer may include 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. Respondent may delegate this requirement to its Project Manager, if a responsible corporate official provides EPA a written declaration defining the scope of the Project Manager authority to act on behalf of the corporation.

C. The certification required by paragraph A 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, except for the following portions of this submittal which I cannot personally verify: [ ]. As to those identified portions of this submittal 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 Facility, 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: \_\_\_\_\_

#### XVIII. 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 that is not in compliance with this Order and to require that Respondent perform tasks in addition to those stated in the Work Plans required by this Order.

B. EPA reserves all of its statutory and regulatory powers, authorities, rights, remedies, both legal and equitable, which pertain to Respondent's failure to comply with any of the requirements of this Order, including the assessment of penalties under § 3008 of RCRA, 42 U.S.C. § 6928. Nevertheless, the parties agree that any stipulated penalties paid by the

Respondent pursuant to Section XXIV, shall be offset against any statutory penalties assessed for the same alleged violation.

C. 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 EPA has under RCRA, CERCLA, or any other statutory, regulatory, or common law authority.

D. 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.

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 permits.

F. In the event Respondent fails to adequately perform work pursuant to this Order, including the submittal of acceptable documents, EPA reserves the right to perform any portion of the work required hereunder or any additional site characterization, feasibility study, and response or corrective actions as EPA deems necessary or appropriate to protect human health and/or the environment, including drafting final work plans and other documents, which become binding on Respondent upon notice by EPA.

H. EPA reserves its right to seek reimbursement from Respondent under all applicable statutes for such additional costs incurred by the United States.

I. 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 EPA under any applicable statute, including CERCLA.

J. Respondent does not admit any factual or legal determinations made by EPA and reserves all rights and defenses, both legal and equitable, it may have regarding liability or responsibility for conditions at the Facility, with the exception of the right to contest EPA's authority to issue and enforce this Order in a proceeding to enforce this Order. Respondent has entered into this Order in good faith without adjudication of any issue of fact or law and specifically retains the right to controvert any of the factual or legal statements or determinations made herein in any judicial or administrative proceedings except in any action to enforce this Order.

#### **XIX. OTHER CLAIMS AND PARTIES**

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, or corporation for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, management or disposal of any hazardous constituents, hazardous substances, hazardous wastes, hazardous materials, pollutants, or contaminants found at, on, or under, taken to or from, or migrating to, from or through the Facility.

**XX. OTHER APPLICABLE LAWS**

Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under applicable local, state, and Federal laws and regulations and shall otherwise comply with all applicable local, state, and Federal requirements.

**XXI. INDEMNIFICATION OF THE UNITED STATES**

A. Neither the United States Government, nor its agencies, departments, agents, and employees (the "Government"), shall be held out or construed to be a party to any contract entered into by Respondent in carrying out activities pursuant to this Order.

B. The Government shall not be liable for any injury or damages to persons or property resulting from acts or omissions of Respondent or its contractor(s) in implementing the requirements of this Order, or any EPA-approved work plans or planning documents submitted pursuant to this Order.

C. The Government shall not be considered agent, independent contractor, receiver, trustee and assign, in carrying out activities required by this Order.

**XXV. SUBSEQUENT MODIFICATION**

A. This Order may only be modified or amended in writing signed by the authorized signatories below, and each modification shall be effective on the date on which it is signed by EPA.

B. Any reports, plans, schedules, and attachments required by this Order shall be incorporated into this Order upon written approval by EPA.

C. If EPA determines that activities in compliance or noncompliance with this Order have caused or may cause a release of hazardous waste or hazardous constituents within and/or outside of the Facility, or have caused or may cause a threat to human health or the environment; or if EPA determines that Respondent is not capable of undertaking any studies or corrective measures required pursuant to this Order, EPA may order Respondent to stop further implementation of this Order for such period of time as EPA determines may be needed to abate any such release or threat and/or to undertake any action which EPA determines is necessary to abate such release or threat.

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

**XXII. DISPUTE RESOLUTION**

1. If Respondent disagrees, in whole or in part, with any decision made or action taken pursuant to this Order, Respondent shall notify EPA's Project Manager of the dispute in writing

within fourteen (14) days of receipt of the decision or notice of the action.

2. The Project Managers will attempt to resolve the dispute informally within ten (10) business days. If the Project Managers cannot resolve the dispute informally, Respondent may pursue the matter formally by placing its objections in writing addressed to the EPA Project Manager and placing them in the mail within fourteen (14) days of the close of business of the tenth (10<sup>th</sup>) business day of informal dispute. The written description must set forth the specific points of the dispute.

3. EPA and Respondent shall then in good faith attempt to resolve the dispute through formal negotiations within fourteen (14) days of EPA receipt, or longer if agreed in writing by EPA. During formal negotiations, either party may request a conference with appropriate senior management to discuss the dispute, which opportunity to confer shall not be unreasonably refused.

4. If the parties are unable to reach agreement within this fourteen (14) day period, Respondent may submit additional written information to the Assistant Regional Administrator for Enforcement, Compliance and Environmental Justice ("ARA") within twenty-one (21) days of the close of the fourteen (14) day period described for formal negotiation. EPA will maintain a record of the dispute, which will contain all statements of position and any other documentation submitted pursuant to this Section. The ARA may allow submission of relevant supplemental statements of position by Respondent. Based on the record, EPA will respond to Respondent's arguments and evidence and place such response in the record, with a copy to Respondent. After review of the record of dispute as supplemented, the ARA shall provide Respondent with EPA's written decision on the dispute signed by the ARA

a. If EPA believes Respondent has undertaken dispute resolution in bad faith and desires a determination of same by the ARA, EPA shall include a statement of position with support regarding bad faith, to which Respondent may respond. When deciding the issues under this Section, if requested by EPA, the ARA will also determine whether Respondent's request for dispute resolution, as asserted by EPA, has been in bad faith, and provide such determination in writing to EPA and Respondent.

5. Any agreement or decision made pursuant to this Section by EPA shall be reduced to writing, shall be deemed incorporated into this Order without further order or process, and shall be binding on the parties, subject to the excused performance in Section XXIII, Force Majeure.

### **XXIII. FORCE MAJEURE**

A. Respondent shall perform the requirements of this Order within the schedules and time limits set forth herein, unless performance is prevented or delayed by events which constitute a force majeure event. A force majeure event is defined as any event, arising from causes not reasonably foreseeable and beyond the control of Respondent, which could not be overcome by due diligence and which delays or prevents performance by a date required by this Order. Respondent shall have the burden of proving such event is a force majeure.

B. Within seventy-two (72) hours of the time that Respondent knows or has reason to know of the occurrence of any event which Respondent has reason to believe may prevent Respondent from timely compliance with any requirement under this Order, Respondent shall provide oral notification to EPA. Within seven (7) calendar days of the time that Respondent



knows or has reason to know of the occurrence of such event, Respondent shall submit to EPA a written description of the event causing the delay, the reasons for and the expected duration of the delay, and actions which will be taken to mitigate the duration of the delay.

A. EPA's decision to agree or disagree that a force majeure event has occurred, or the agency's decision to approve or disapprove Respondent's proposed actions for mitigating the delay shall be submitted to the Facility in a written response.

#### XXIV. STIPULATED PENALTIES

A. Unless performance is prevented or delayed by a force majeure event or there has been a written modification of a performance date by EPA as provided in the section entitled Subsequent Modifications, in the event Respondent fails to meet any requirement set forth in this Order, Respondent shall pay stipulated penalties. Compliance by Respondent shall include completion of an activity under this Order or a plan or schedule approved under this Order or any matter under this Order in an acceptable manner and within the specified time schedules in and approved under this Order.

Respondent will be subject to the following stipulated penalties:

1. For failure to submit quarterly progress reports by the dates scheduled in Section XI: \$100 per day for the first fourteen (14) days and \$1000 per day thereafter;

2. For failure to commence work as prescribed in this Order and in EPA-approved plans and reports incorporated into this Order: \$500 per day for the first seven (7) days of delay, \$1000 per day for each day of delay, or part thereof, thereafter;

3. For failure to submit acceptable reports, design plans, work plans, or revised work plans and reports at the time required pursuant to this Order: \$500 per day for the first seven days of delay, and \$1000 per day for each day of delay thereafter;

4. For failure to submit other deliverables required by this Order: \$500 per day for the first seven days of delay, and \$1000 per day thereafter;

5. For any other failure to comply with provisions of this Order after notice by EPA of noncompliance: \$1000 per day for the first seven days of delay, and \$2000 per day for each day of delay thereafter.

B. All penalties shall begin to accrue on the date that complete performance is due or a violation occurs and shall continue to accrue through the final day or correction of the noncompliance. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Order.

C. All penalties owed to EPA under this Order shall be due and payable within thirty (30) days of receipt of a notification of noncompliance from EPA. Such notification shall describe the noncompliance and shall indicate the amount of penalties due. Interest shall begin to accrue on the unpaid balance at the end of the thirty-day period. Stipulated penalties shall be paid by

certified or cashier's check, which references this action, made payable to the United States Treasury, and shall be remitted to:

Regional Hearing Clerk  
U.S. Environmental Protection Agency  
Region 8  
P.O. Box 360859M  
Pittsburgh, PA 15251

All payments shall reference the name and address of the Facility, and the docket number of this action. Copies of the transmittal of payment shall be sent to the EPA Project Manager.

D. The stipulated penalties set forth in this Section do not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the requirements of this Order, nor shall payment of said penalties relieve Respondent of the responsibility to comply with this Order. All stipulated penalties which are paid by Respondent may be off-set against any and all penalties for the same violation which EPA may be entitled to collect as a result of other enforcement action.

E. The Respondent may dispute EPA's assessment of stipulated penalties by invoking the Dispute Resolution procedures of Section XXV of this Order. The stipulated penalties in dispute will continue to accrue, but need not be paid, during the dispute resolution period. To the extent Respondent does not prevail upon resolution of the dispute, EPA has the right to collect all penalties which accrued prior to and during the period of dispute with respect to those aspects of the dispute on which Respondent does not prevail. To the extent that Respondent prevails upon resolution of the dispute, no penalties shall be payable with respect to those aspects of the dispute on which Respondent prevails.

**XXV. TERMINATION AND SATISFACTION**

Except for the record preservation provisions, the provisions of this Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that EPA has approved the CMI Summary Report.

**XXVI. SURVIVABILITY/INTEGRATION**

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

B. Any requirements of this Order shall not terminate upon the issuance of a RCRA order or permit unless the requirements are expressly replaced by equivalent or more stringent requirements in the order or permit.

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**XXVII. ATTACHMENTS**

The following Attachment is incorporated into this Order:

Attachment 1: RCRA Facility Investigation Work Plan

**XXVIII. EFFECTIVE DATE**

The effective date of this Order shall be the date on which this Order is signed by EPA.

**UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY  
REGION 8, Office of Enforcement, Compliance  
and Environmental Justice, Complainant.**

Date: 10/17/06

By: Sharon L Kercher  
Sharon Kercher, Director  
Technical Enforcement Program

Date: 10/17/06

By: Michael T. Risner  
Michael T. Risner, Director  
David Janik, Supervisor  
Legal Enforcement Program

Date: 10/17/06

By: Brenda L Morris  
Brenda L. Morris, Attorney  
Legal Enforcement Program

**KATZSON BROTHERS, INC.,  
Respondent.**

Date: \_\_\_\_\_

By: Seymour Katzson  
Seymour Katzson, President

# RCRA FACILITY INVESTIGATION WORK PLAN

## 1. SCOPE OF WORK

Based upon the review of the prior site investigations and the previously identified data gaps/data needs, Respondent shall conduct the following additional investigations at and around the Site:

- Collect and analyze soil samples obtained from five new down gradient borings to be drilled at the Site;
- Install a minimum of five new monitoring wells at the Site;
- Measure groundwater levels from all new and existing wells on a quarterly basis for at least one year.
- Collect groundwater samples from all existing and new wells at the Site for two quarters followed by semi-annual sampling. The first quarter sampling event shall include both semi-volatile and volatile organics. Semi-annual sampling shall continue until the parties determine that sufficient data has been collected for purposes of completing the corrective measures study (CMS).
- Monitor indoor air including sub-slab soil vapor sampling in the warehouse area and 24-hour indoor air sampling in the office area.

The details of the additional work and the proposed methods are described below.

### 1.1 Drilling, Soil Sampling and Monitoring Well Installation

Prior site characterization has indicated a release of PCE, TCE, and DCE to soil, soil vapor, and groundwater at the facility. Ground water quality data confirm contamination beneath the facility above MCLs for PCE and TCE while historic unloading of bulk liquid solvents indicate that at least a portion of the contaminant residues may be present as DNAPLs. Off-site migration is indicated, and confirmed along the western property boundary but not the northern property boundary.

Five new soil borings will be drilled and five new monitoring wells will be installed at the locations shown on Figure 4. All boreholes will be drilled to the base of weathering unless refusal was encountered at shallower depths. Drilling will continue one to two feet into unweathered bedrock to verify that the base of weathering has been encountered. The locations of the proposed soil borings/new monitoring wells include the following:

- Adjacent to the 15,000 gallon AST (as close as access can be obtained with the drill rig given the presence of the loading dock and rail line in this area);
- Near the three 2,500 gallon ASTs and former boring/monitoring well MW-2A;<sup>1</sup>

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<sup>1</sup>An initial field reconnaissance could not locate former well MW-2A, as it may have been paved over; therefore this work plan includes drilling and installing a replacement well. In the event that MW-2A is located and is fully functional as a monitoring well, only a soil boring need be drilled in this area.

- Along the western property boundary midway between former wells MW-2A and MW-3A<sup>2</sup>;
- On the exterior of the building adjacent to the truck bay<sup>3</sup> in the northeastern corner of the building near the location of the previous soil gas sample that contained the highest levels (224 ppm) of hydrocarbons; and
- Along the northern property boundary between 10<sup>th</sup> Street and the eastern wall of warehouse I.

In the event that ground water elevations, the presence of contamination, and/or other reliable information indicate a component of flow to the north of the Facility at levels above accepted State or Federal standards, two wells will be installed and additional well(s) may need to be installed in this area in order to determine the extent of contamination migrating north of the facility or an interim remedial measure may need to be implemented to address the migration pathway.

Soil borings will be drilled using hollow-stem augers (minimum 6-inch inside diameter) with continuous soil core sampling capability. Immediately upon retrieval and opening of each core barrel, each five-ft core run will also be scanned using a photoionization detector (PID) for the presence of VOCs. Soil cores will be inspected for visual indications of contamination (staining, discoloration, etc.) and/or odors potentially suggestive of the presence of contamination. Soil samples will be obtained from any intervals displaying elevated PID readings or visual or other indications of potential contamination and placed in clean glass jars for further field testing.

After scanning with the PID and initial visual inspection, soil cores will be logged by a qualified geologist according to ASTM Method D-2488: Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). Field versions of soil boring logs will be prepared in the field at the time of drilling to describe the soil and bedrock materials and conditions encountered during drilling. Field boring logs will subsequently be reviewed and final soil boring logs will be prepared for inclusion in the site investigation report.

In the event that field screening with the PID or visual inspection does not identify an interval of potential contamination, a sample from the middle of each core run will be collected and placed in a clean glass jar for further testing. Samples for field testing will consist of jars half filled with soil which are covered with aluminum foil prior to sealing with a lid. Such samples will be placed inside a warm vehicle, in the sun or other area where they will be allowed to warm up. Upon completion of drilling at each location, the accumulated field samples will be tested by removing the lid and inserting the PID probe through the aluminum foil into the head space above the soil in the jar. Readings obtained from the PID will be recorded on the field logs.

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<sup>2</sup>The presence of overhead power lines necessitated moving the location for the new well to the east of the direct line between MW-2A and MW-3A.

<sup>3</sup>Inside the truck bay has been determined to be inaccessible.

If a contractor owned unit is used, the instrument will be calibrated at the start of each day in accordance with the manufacturer's specifications and procedures. If a rental PID unit is used the PID will be calibrated by the renting agency in accordance with manufacture's specifications and procedures prior to delivery to the Site. The instrument will be calibrated at the start of each day in accordance with the manufacturer's specifications and procedures.

In addition to the half-filled jars to be subjected to field testing with the PID, a second sample will be obtained from each interval and placed in a second clean glass jar for possible submission to the analytical laboratory. Sample jars for possible laboratory analysis will be completely filled with soil and the soil will be packed into the jar to the extent practical prior to sealing. These samples will be placed in a cooler until the field screening is completed. The sample containing the highest level of VOCs, based on the results of the field screening with the PID, from each borehole with adequate core recovery will be submitted to Severn Trent Laboratory in Arvada, Colorado for laboratory analysis for VOCs by SW-846 Method 8260B.

Soil cuttings generated during well drilling, decontamination solutions, purge water, personal protective equipment, and other investigation-derived wastes will be containerized in 55-gallon drums and placed in a central location on site. Based on the results of the sample analyses, the investigation-derived wastes will be disposed of at a solid waste landfill or hazardous waste landfill as appropriate or if necessary retained for appropriate treatment or disposal at a later date.

Monitoring wells will be constructed using flush-joint, threaded, schedule 40 poly vinyl chloride (PVC) casing. Screened intervals will consist of 5- ft, or where necessary two 5-ft intervals joined together, sections of factory slotted (0.010 inch) well screen. [In recognition that the wells will only be sampled for volatile organic compounds and not trace metals or inorganic constituents, no sand pack will be placed below the base of the well screen. The portion of each boring that extends into unweathered bedrock will be backfilled with bentonite chips to the top of the unweathered bedrock. Well screens will be installed at the bottom of the borehole on top of the bentonite chips with no sand placed below the screen. The well screens will not have casing material installed below the end of the screen other than the cap. A minimum two-ft thick bentonite crumble seal will be placed above the top of the well sand. A cement-bentonite grout mixture (approximately 5-lbs of bentonite per bag of cement with approximately 7-gallons of water) will be placed above the bentonite crumble seal and will extend to within approximately one-foot of the ground surface. An at-grade locking well protector will be installed and the remainder of the well bore annulus will be filled with concrete.

Upon completion of all drilling activities, all of the new wells plus the existing monitoring wells will be surveyed for horizontal and vertical control by a Colorado-licensed surveyor. The horizontal survey control data will be used to prepare an updated map of the Site. Vertical control will be established on the north edge of the top of the PVC casing inside of the protective well cover. A mark will be made on the north edge of the PVC casing indicating the position of the vertical control point.

Permits will be obtained for each of the new monitoring wells from the Colorado State Engineers Office.

### 1.2 Groundwater Level Measurement

Groundwater level measurements will be obtained on a quarterly basis commencing within thirty(30) days of the effective date of this order and continuing until adequate data have been collected for the CMS.

Depth to water will be measured from the vertical control point located on the PVC casing at each well. Water level measurements will be recorded in bound field notebooks and will consist of the well number, date and time of measurement, depth to water, and general condition of the wellhead. Depth to water measurements will be used in conjunction with the vertical control data to prepare a summary table of water level elevations and a map of Site water levels. The map shall include ground water elevation contours and indicate ground water flow direction.

### 1.3 Groundwater Quality Sampling and Analysis

Upon completion of collection of the initial water level measurements, each monitoring well will be sampled. Samples will be obtained for laboratory analysis for VOCs using SW-846 Method 8260B. In addition, for the initial sampling event, sampling will also be analyzed for semi-volatiles using SW-846 Method 8270.

Groundwater sampling will consist of the following activities:

- Measurement of the depth to water and total depth of each well and calculation of the volume of water within the well casing (casing volume).
- Standing water within the well casing will be removed (purged) using a clean disposable bailer, Waterra pump or other means to remove standing water with minimal disturbance or volatilization. After completion of the initial two sampling events, dedicated pumps may be installed in some or all of the monitoring wells after which well sampling will be performed using Standard Low Flow Purging and Sampling Methods.
- Field measurements will be obtained after removal of the first casing volume and after removal of each successive casing volume unless the well volume is sufficiently large (ten gallons or more) to allow for collection of field measurements after each half casing volume.
- Field measurements will consist of pH, temperature, specific conductance and dissolved oxygen.
- Well purging will continue until three sets of field measurements have been obtained indicating successive readings within 0.1 pH units, 0.1 °C temperature and successive specific conductance readings within 10%. Attempts will also be made to obtain three successive dissolved oxygen readings within 10%; however,

in many cases this is not be practical (i.e., dissolved oxygen readings often are highly variable in shallow wells completed in thinly saturated units due to difference in introduction of oxygen at the groundwater – air interface under ambient and sampling conditions). Field parameters will be measured on a continuous basis in wells in which dedicated pumps are installed and Standard Low Flow Purging and Sampling Methods are used.

- In the event that field parameters do not stabilize in the manner described above, each well will be sampled after five casing volumes have been removed. EPA will be notified and an alternative method will be proposed and agreed upon.
- In the event that a well bails/pumps dry during sampling, the well will be allowed to recharge for a period up to 24 hours, and a sample of the recharged water will be obtained for laboratory analysis.
- After ground water samples have been collected, the well will be evaluated for the presence of dense non-aqueous phase liquids (DNAPLs). This will be accomplished by implementing one of two methods; either lowering a clear disposable bailer to the bottom of the well and then removing it to visually inspect it for the presence of DNAPL or by using an interface probe.
- Should low flow sampling methods not be used, then the presence of DNAPLs will be evaluated prior to purging.

Well development and field measurements will be recorded on standard well sampling forms.

## **2. CHARACTERIZATION OF OFFSITE MIGRATION PATHWAYS**

Historical site characterization data in conjunction with ground water flow path analysis in the vicinity of the Facility has identified two probable off-site ground water migration pathways. Further investigation is required to determine whether ground water contamination migrating from the Facility has intercepted and is migrating off-site via these pathways. Historical evidence also indicates that PCE and its breakdown products have migrated from the Facility and that there is a likelihood that it has reached and is migrating along these pathways. Therefore, in order to determine the full nature and extent of ground water contamination that may have migrated off-site, the two probable pathways must be evaluated for the presence of PCE and its associated breakdown products.

### **2.1 The Sewer Line**

The first probable pathway is the sewer line located along Vallejos Street. It is likely that contaminated ground water and perhaps DNAPLs have intercepted the sewer trench and that the trench provides a conduit for off-site migration. As such, contamination in the main sewer line will be indicative that the DNAPL contaminants may be migrating from the Katzson facility. Subject to the Order, Section XIII, On-Site and Off-Site Access, the Facility shall perform the following work:



Respondent will conduct a camera survey of the integrity of the Katzson sewer connector line from the Katzson facility to the main sewer line for potential cracks, leaks, or other deterioration and sample the Katzson connector line by installing borings into the sewer bedding advanced to the bottom of the trench. Samples shall be evaluated for the presence of DNAPLs prior to sample collection.

Respondent shall sample to delineate DNAPL(s) migration along the bedrock in the main sewer line located along Vallejo Street if (1) the parties' evaluation of all available information determines the sewer line base elevation is below the elevation of the bedrock of potential source areas on the facility or (2) the investigation of the on-site sewer connector line indicates the potential for DNAPL presence in the connector line. The Facility shall install sufficient borings into the trench to characterize the migration pathway. All borings shall be advanced to the bottom of the trench, and the boreholes shall be evaluated for the presence of DNAPLs prior to sample collection. Should the sampling indicate the presence of DNAPLs, the parties agree that an interim remedial measure may be needed to be implemented to address the migration pathway.

## 2.2 Northern property boundary

The second probable pathway is located to the northwest of the Facility and G & K Services properties. In the event that ground water elevations, the presence of contamination, and/or other reliable information indicate a component of flow to the north of the Facility at levels above accepted State or Federal standards, additional well(s) may need to be installed in this area in order to determine the extent of contamination migrating north of the facility or an interim remedial measure may need to be implemented to address the migration pathway.

## 3. INDOOR AIR MONITORING

Volatile organics may be migrating from the ground water plumes into the Facility's buildings and/or structures. To evaluate this potential pathway, vapor intrusion will be measured using sub-slab monitoring methods, within the building in the general vicinity of the four locations shown on Figure 4.

Sub-slab soil vapor sampling points will be installed as close as can be achieved to the locations shown on Figure 4 given the presence of extensive materials and equipment in the warehouse. Borings will be drilled through the foundation and extend below the base of the foundation in accordance with the EPA SOP for Installation of Sub Slab Vapor Probes and Sampling.

Soil vapor samples will subsequently be collected from each of the four sub-slab soil vapor sampling points. Vapor samples will be obtained using a peristaltic pump and Tedlar bags or Summa Canisters. Each sub-slab sampling point will be purged a minimum of five minutes prior to sample collection. The collected samples will be submitted to Air Toxics Laboratory in Folsom, CA for VOC analyses by method TO-15. In addition to the subslab sampling, 24-hour indoor air samples will be obtained from the office area to assess the potential for PCE or other VOC occurrences in indoor air. Indoor air sampling is currently proposed only for the office area as the office location is generally enclosed and potentially subject to lower air pressure resulting from operation of heating, ventilation and air conditioning (HVAC) systems as compare to the more

open nature of the warehouse spaces. Summa canisters with flow regulators will be set out at two locations within the office area during a period when the office is either not used or in minimal use (i.e., over a weekend day). After approximately 24-hours, the Summa canisters will be collected and submitted to Air Toxics Laboratory for TO-15 analyses.

#### 4. QUALITY ASSURANCE/QUALITY CONTROL

Quality assurance/quality control will be maintained for all field activities through the use of established, standard methods of practice for all activities as described above. All samples to be submitted to the analytical laboratory for analysis will be documented on a chain of custody form and will be enclosed in coolers or other vessels sealed with custody tape signed and dated by the sampler.

The analytical laboratory will perform all analyses using established, standard analytical methods, in this case SW-846 Method 8260B, and will adhere to the analytical procedures and techniques described in the method. A standard laboratory package, including supporting documentation necessary to allow independent validation of the analytical data, will be provided by the laboratory. The analytical data will be reviewed by a contractor geochemist to verify the validity of the reported results.

Quality control (QC) samples will be obtained and submitted to the laboratory to assess the accuracy and precision of the laboratory data. QC samples will include the following:

- VOC trip blanks contained with the coolers used to store and ship water sample bottles and water samples;
- A duplicate soil sample from one of the four soil borings;
- Distilled water placed in a sample container and allowed to be open to the atmosphere at the same time that a groundwater sample is obtained from one of the six monitoring wells; and
- A duplicate groundwater sample from one of the six monitoring wells.

#### 5. HEALTH AND SAFETY

Prior to the start of each field activity, a tailgate safety briefing will be held to review the site conditions, potential risks, protective measures to be employed, and appropriate procedures, routes and contacts in the event of an emergency. The primary hazards expected to be encountered during field work include the following:

- Slips, trips and falls;
- Vehicle accidents (with personnel or other vehicles)
- Contact with overhead electric power lines (during drilling)
- Sunburn, dehydration, heat stress, or possible heat stroke during warm times of the year or alternatively dehydration, hypothermia or frost bite during cold periods;

- Direct contact with contaminated soil or water and possible inhalation or ingestion of vapors or contaminated material.

In order to minimize or prevent injuries and exposure, standard health and safety procedures will be employed and standard protective equipment will be utilized during field work. All work will be performed in Level D safety equipment which will include the following:

- Steel-toe boots
- Long pants
- Hard hats
- Safety glasses
- Hearing protection (during drilling only)
- Chemically resistant gloves (during water sampling and possibly during handling of soil samples)

During all field activities, PID readings will be obtained from the breathing zone in each work area (close to ground surface near the drill string during drilling, near the soil cores during logging, and at the well heads during groundwater sampling). In the event that any readings are obtained that are more than 5 ppm above background, all work will be terminated until VOC levels dissipate to background levels, additional protective equipment are available (i.e., Level C respiratory protection), or an additional assessment of potential health and safety risks has been completed (determination of specific compounds in the breathing zone and assessment of detected concentrations against compound specific standards for industrial exposure or other risk-based standards).

During drilling and groundwater sampling activities, access to the work area will be control by placement of construction cones and/or caution tape to delineate areas of restricted access. The site geologist will be responsible for controlling access to the work area during drilling. Due to the limited area available for conducting this work, drilling activities may be performed over a weekend to minimize disruption to Site operations and employees and to reduce potential interaction and possible impacts between field and Site personnel.

## 6. REPORTING

All sampling locations, methods and equipment used shall be documented in a field log, and all locations shall be identified on detailed facility maps. Upon completion of drilling, well installation, collection of initial water level measurements, and initial sampling of each well, the Construction Completion Report will be prepared summarizing and presenting the results of the investigations. At a minimum the Construction Completion Report will include the following items:

- Summary description of work performed;
- Identification of any variances in the procedures described or referenced in this work plan;
- Final soil boring logs and well construction records, including well survey data;
- Narrative discussion of the geologic and hydrogeologic conditions at the Site;

- Tabular summary of water level data;
- Map of water level data including, as appropriate, water level contours.

The following items shall be included in the first quarterly progress report due after the Respondent receives the analytical results from the first round of sampling:

- Tabular summary of soil sample analytical results; including a map delineating the concentration at each sample location.
- Tabular summary of water sample analytical results, including a map delineating the concentration at each well, and if appropriate, concentration contours.
- Analytical laboratory report;
- Narrative discussion of the nature and extent of contamination and possible source of contamination at the Site, and off-site;
- Comparison and evaluation of the results of the QC samples with the investigative sample results;
- Recommendations for additional activities, if any.

## 7. REFERENCES

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Harlan, Casey & Associates, 1992 Re; Katzson Brothers Analytical Results, October 15.