

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
901 NORTH 5TH STREET
KANSAS CITY, KANSAS 66101

2012 NOV 27 PM 2: 25

IN THE MATTER OF:
DUDLEY LAUNDRY COMPANY, INC.
126 N. 3RD STREET
NORFOLK, NE 68701-4108

EPA ID NO. NED035093178

RESPONDENT.

Proceeding under Section 7003 of the
Resource Conservation and Recovery Act,
as amended, 42 U.S.C. § 6973.

EPA Docket No.
RCRA-07-2012-0016

ADMINISTRATIVE ORDER ON CONSENT

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I. INTRODUCTION

1. This Administrative Order on Consent (AOC) is entered into voluntarily by the United States Environmental Protection Agency (EPA) and Dudley Laundry Company, Inc. (Respondent). This AOC provides for the performance of Work (as defined in Section IV (Definitions) below) by Respondent to, among other things, respond to the release of hazardous wastes and/or solid wastes at and/or from Respondent's facility located at 126 North 3rd Street, Norfolk, Nebraska (the "Site"). By entering into this AOC, the mutual objectives of EPA and Respondent are to respond to and/or prevent any potential endangerment to human health and/or the environment from the release, or the threat of a release, of hazardous wastes and/or solid wastes at or from the Site, and to insure that the Work ordered by EPA pursuant to this AOC is designed and implemented to protect human health and/or the environment. The Work required to be performed by Respondent is further described in the Statement of Work (SOW) attached hereto as Attachment 1, which is hereby incorporated into this AOC. Respondent shall finance and perform the Work in accordance with this AOC, the SOW, and all plans, standards, specifications, and schedules set forth in this AOC or developed by Respondent and approved by EPA pursuant to this AOC.

2. EPA has determined that Respondent has contributed or is contributing to the past or present handling, storage, treatment, transportation or disposal of hazardous wastes that may present an imminent and substantial endangerment to health or the environment.

3. EPA has notified the state of Nebraska of this action pursuant to Section 7003(a) of RCRA, 42 U.S.C. § 6973(a).

4. Respondent's participation in this AOC shall not constitute or be construed as an admission of liability. Respondent neither admits nor denies the factual allegations and legal conclusions set forth in this AOC.

5. EPA and Respondent acknowledge that this AOC has been negotiated by the parties in good faith and that this AOC is fair, reasonable, and in the public interest.

II. JURISDICTION

6. This AOC is issued under the authority vested in EPA's Administrator by Section 7003 of RCRA, 42 U.S.C. § 6973, which authority has been delegated to EPA's Regional Administrators by Delegations 8-22-A and 8-22-C. This authority has been further delegated to the Director of EPA Region 7's Air and Waste Management Division by Regional Delegations R7-8-0022A and R7-8-0022C.

7. Respondent agrees to undertake and complete the Work. In any action by EPA or the United States to enforce this AOC, Respondent consents to and agrees not to contest EPA's authority or jurisdiction to issue or enforce this AOC, and agrees not to contest the validity of this AOC or its terms or requirements.

III. PARTIES BOUND

8. This AOC shall apply to and be binding upon EPA, and on Respondent and Respondent's successors, assigns, trustees, receivers, and upon all persons, including but not limited to contractors and consultants, acting on behalf of Respondent, as well as upon subsequent purchasers of the Site. Any change in the ownership or corporate status of Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter Respondent's responsibilities under this AOC.

9. Respondent shall provide a copy of this AOC to any subsequent owners or successors before a controlling interest in ownership rights, stock, assets or the Site is transferred. Respondent shall be responsible for and liable for completing all of the Work required by this AOC, regardless of whether there has been a transfer of ownership or control of the Site or whether said activities are to be performed by employees, agents, contractors, subcontractors, laboratories, or consultants of Respondent. Respondent shall provide a copy of this AOC within seven (7) days of its Effective Date, or the date that such services are retained, to all contractors, subcontractors, laboratories, and consultants that are retained to conduct or monitor any portion of the Work performed pursuant to this AOC. Respondent shall condition all contracts or agreements with contractors, subcontractors, laboratories and/or consultants in connection with this AOC, on compliance with this AOC. Respondent shall ensure that its contractors, subcontractors, laboratories, and consultants comply with this AOC.

10. Not later than sixty (60) days prior to any voluntary transfer by Respondent of any interest in the Site or the operation of the Site, Respondent shall give written notice: (a) to the transferee regarding the AOC and any Institutional Controls regarding the real property; and (b) to EPA regarding the proposed transfer, including the name and address of the transferee and the date on which the transferee was notified of this AOC and Institutional Controls. Respondent shall also provide a description of the property and/or the operations being transferred. In the case of a voluntary transfer through a bankruptcy, Respondent shall notify EPA within 24 hours of the decision to transfer property. Respondent shall notify EPA of any involuntary transfers immediately upon Respondent's initial receipt of notice of any involuntary transfer. Not later than three (3) days after any transfer, Respondent shall submit copies of the transfer documents to EPA. Respondent shall provide a copy of this AOC to any subsequent owners or successors before a controlling interest in ownership rights, stock, assets or the Site is transferred.

IV. DEFINITIONS

11. Unless otherwise expressly provided herein, terms used in this AOC that are defined in RCRA shall have the meaning assigned to them in RCRA. Whenever the terms listed below are used in this AOC the following definitions apply:

"Additional Work" shall mean any activity or requirement that is not expressly covered by this AOC or its attachments but is determined by EPA to be necessary to fulfill the objectives of this AOC.

“Administrative Record” shall mean the record compiled and maintained by EPA related to the Site.

“AOC” shall mean this Administrative Order on Consent and its attachments, any amendments hereto, and any documents incorporated by reference into this AOC.

“CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 - 9675.

“Contractor” shall include any subcontractor, consultant, or laboratory retained to conduct or monitor any portion of the Work performed pursuant to this AOC.

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

“Data Quality Objectives” shall mean those qualitative and quantitative statements derived from the outputs of a scientific and legally defensible data collection planning process.

“Day” shall mean a calendar day unless expressly stated otherwise.

“Effective Date” shall be the date on which EPA signs this AOC following the public comment period which is held pursuant to Section XXVIII (Public Comment on this AOC), and as provided for in Section XXX (Effective Date).

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

“Hazardous Constituents” shall mean those constituents listed in Appendix VIII to 40 C.F.R. Part 261 or any constituent identified in Appendix IX to 40 C.F.R. Part 264.

“Hazardous Waste” shall mean hazardous waste as defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), or 40 C.F.R. § 260.10.

“RCRA” shall mean the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (and as further amended), 42 U.S.C. §§ 6901 - 6992k.

“Site” shall mean the real property where Respondent’s facility is located at 126 N. 3rd Street, Norfolk, Madison County, Nebraska.

“SOW” shall mean the Statement of Work that is attached to this AOC as Attachment 1.

“Work” shall mean all the activities and requirements specified in this AOC including, but not limited to, those requirements set forth in the SOW and in Section IX (Work to Be Performed) of this AOC, but excluding those required by Section XVI (Record Retention).

V. FINDINGS OF FACT

12. Respondent is a corporation organized under the laws of the state of Nebraska and is authorized to do business in the state of Nebraska.
13. Since the 1930s to the present, Respondent has owned the Site. During this time, Respondent has operated a laundry business at the Site. Also, from the 1930s until a fire in 2003, Respondent had operated a dry cleaning business at the Site.
14. The Site encompasses the northeast quarter of the city block bounded on the north by Braasch Avenue, on the east by 2nd Street, on the south by Norfolk Avenue (HWY 275B), and to the west by 3rd Street, in the downtown commercial area of Norfolk, Nebraska. A map generally depicting the location of the Site is attached as Attachment 2.
15. The Site is located one and one half blocks north and several blocks west and hydrologically upgradient of the city of Norfolk’s East Well Field, which supplies water to the drinking water supply system of the city of Norfolk (“the City”). The City has a population of approximately 24,000.
16. From the 1980s until the 2003 fire damaged the dry-cleaning area at the Site, Respondent used tetrachloroethene (PCE) as a dry-cleaning solvent. Since the fire, the business has been strictly a laundry and has no dry-cleaning or use of PCE.
17. In 1989-1990, six underground storage tanks were removed from the Site. The tanks had variously been used to hold Stoddard solvent, gasoline, diesel, and possibly kerosene. When the tanks were removed, soil staining around the tanks indicated that releases had occurred.
18. The Nebraska Department of Environmental Quality has given the Site a Remedial Action Classification 1 (RAC 1), which indicates that the groundwater in the vicinity of the Site is being used for drinking water and that the Site is within 1,000 feet of a well or well field.
19. In the vicinity of the Site, groundwater in the shallow unconsolidated water bearing unit flows to the southeast. The shallow stratigraphy beneath the Site is composed of fill material to a depth of approximately nine feet. The fill material is underlain by a silty clay layer which contains some sand and gravel. Beneath the silty clay is fine to medium grained sand which grades downward to a coarse sand to gravel. Underlying this coarse sand and gravel interval is a clay zone approximately two to three feet in thickness. Beneath this clay is a coarse unconsolidated sand to gravel which is approximately twenty feet thick. Underlying this sand is the Niobrara Chalk which is encountered at a depth of approximately 40 feet. The shallow unconsolidated ground water bearing unit lies directly upon the Niobrara Chalk with no impermeable layer separating the two.

20. In 1997, a RCRA compliance evaluation inspection resulted in the Respondent receiving a notice of violation from the EPA for failure to make a hazardous waste determination on separator water from the PCE dry cleaning unit. The separator water was determined to be hazardous waste due to the high PCE concentrations, and the prior practice had been to discharge the separator water to the sewer lines, which were leaking. The release to the sewer lines was halted. New sewer lines have been installed since that time.

21. In September 1998, the EPA and Respondent entered into, and the EPA issued to Respondent, an Administrative Order on Consent (EPA Docket No. VII-98-H-0080) (1998 AOC), pursuant to Section 7003 of RCRA, 42 U.S.C. § 6973. The 1998 AOC required, among other things, that Respondent:

- a. immediately initiate Interim Measures to protect the City's east municipal well field from contamination associated with the Site;
- b. prepare a Current Conditions Report summarizing past environmental investigations and sampling results;
- c. conduct a RCRA Facility Investigation (RFI) to determine the vertical and horizontal extent of both soil and groundwater contamination at the Site; and
- d. conduct a Corrective Measures Study (CMS) based on data developed during the RFI and Interim Measures implementation.

22. The Interim Measures implemented under the 1998 AOC included monitoring well sampling at and around the Site and actions taken by the City of Norfolk in response to a leaking petroleum underground storage tank unrelated to the Respondent's facility. The action taken by the City included enhanced aeration at the City's treatment plant, and pumping and discharge of City Well No. 1 to help control the plume migration from the Site towards other City wells. These actions continue to be considered part of the final remedy, see paragraph 25.

23. The RFI required by the 1998 AOC identified the following releases of hazardous wastes into the environment that exceeded either maximum contaminant levels (MCLs) under the Safe Drinking Water Act or risk-based levels set at a Hazard Index of one and a carcinogenic risk of one in 100,000:

- a. soil at the Site is contaminated above risk-based levels for an industrial worker for PCE, TCE, and Stoddard solvents. The Site building and paving prevent direct exposure, but the soil contamination is a continuing source of release of hazardous waste to groundwater, and to soil vapor;
- b. concentrations of hazardous wastes in groundwater from the Dudley production well are below drinking water standards (i.e., MCLs) and risk-based levels; groundwater samples collected from monitoring wells near the Site show concentrations of hazardous wastes above MCLs for PCE, TCE, cis-1,2-dichloroethene, vinyl chloride, ethylbenzene, naphthalene, and Stoddard solvent; groundwater samples collected from monitoring wells near the City's water supply wells show hazardous waste concentrations above MCLs for vinyl

chloride, TCE, cis-1,2-dichloroethene, ethylbenzene, and PCE; and although the groundwater from the Site is moving in the direction of the City's water supply wells, samples collected from the City's water supply have not revealed detections of Site-related contaminants above the MCLs; and

- c. indoor air and soil vapor (i.e., beneath the floor or subslab) at the Site have contamination above risk-based levels for an industrial worker for PCE and TCE in the subslab, and for PCE and ethylbenzene in indoor air.

24. The CMS Report required by the 1998 AOC described potential corrective measures. A May 3, 2011 Statement of Basis by the EPA proposed a remedy for the Site. After a public comment period, the EPA selected a Final Remedy for the Site on July 29, 2011, see Attachment 3.

25. The Final Remedy includes source removal using a soil vapor extraction system, groundwater control using the continued operation of the Site production well, groundwater monitoring, and continued operation by the City of its well system (pumping scheme and treatment system), and institutional controls to prevent exposures to site contaminants and unacceptable health risks. The constituents identified in paragraphs 26 through 32 have been found in soil, groundwater, and/or indoor air at the Site and, under certain conditions of dose, duration, or extent of exposure, may constitute a threat to human health by ingestion, inhalation, and/or dermal adsorption.

26. **Tetrachloroethene (PCE):** Based on the available human epidemiologic data and experimental and mechanistic studies, it is concluded that PCE poses a potential human health hazard for noncancer toxicity to the central nervous system, kidney, liver, immune and hematologic system, and on development and reproduction. PCE is characterized by the EPA as likely to be carcinogenic to humans by all routes of exposure. PCE degrades to TCE, *cis*- and *trans*-1,2-dichloroethene, and vinyl chloride.

27. **Ethylbenzene:** Health effects from exposure to unsafe levels of ethylbenzene may include kidney, liver, and skin damage and chronic respiratory disease. Irreversible damage to the inner ear and hearing has been observed in animals exposed to relatively low concentrations of ethylbenzene for several days to weeks. Exposure to relatively low concentrations of ethylbenzene in air for several months to years causes kidney damage in animals. The International Agency for Research on Cancer (IARC) has determined that ethylbenzene is a possible human carcinogen.

28. **Trichloroethene (TCE):** Based on the available human epidemiologic data and experimental and mechanistic studies, it is concluded that TCE poses a potential human health hazard for noncancer toxicity to the central nervous system, kidney, liver, immune system, male reproductive system, and the developing fetus. TCE is characterized by the EPA as carcinogenic in humans by all routes of exposure.

29. **Vinyl chloride:** Health effects from exposure to unsafe levels of vinyl chloride may include loss of consciousness, heart, liver, and kidney damage, circulation problems, and possibly death. Vinyl chloride is characterized by the EPA as a known human carcinogen.

30. **Stoddard solvents:** People who breathe Stoddard solvent can experience headaches; dizziness; and eye, skin, or throat irritation. Exposure to Stoddard solvent in the air can affect your nervous system and cause dizziness, headaches, or a prolonged reaction time. It can also cause eye, skin, or throat irritation. The effects of swallowing Stoddard solvent are not known. It is not known whether Stoddard solvent can cause birth defects or affect reproduction. The IARC has determined that Stoddard solvent is not classifiable as to its carcinogenicity to humans.

31. **Naphthalene:** Exposure to large amounts of naphthalene may damage or destroy red blood cells. This could cause a person to have too few red blood cells until the body replaces the destroyed cells. This condition is called hemolytic anemia. Some symptoms of hemolytic anemia are fatigue, lack of appetite, restlessness, and pale skin. Exposure to large amounts of naphthalene may also cause nausea, vomiting, diarrhea, blood in the urine, and a yellow color to the skin. It is unclear if naphthalene causes reproductive effects in animals; most evidence says it does not. The EPA characterizes naphthalene as a possible human carcinogen.

32. **1,2-Dichloroethene (1,2-DCE, *cis* and *trans*) and 1,1,2,2-Tetrachloroethane:** Health effects of exposure to excess levels of *cis*-1,2-dichloroethene (a breakdown product of PCE) may include a decrease in the number of red blood cells, liver damage, and decreased fetal development. Studies have shown that animals that ingested extremely high doses of *cis*- or *trans*-1,2-dichloroethene died. Breathing very high concentrations of 1,1,2,2-tetrachloroethane (an intermediary chemical in the production of PCE) can rapidly cause drowsiness, dizziness, nausea, vomiting, and possibly unconsciousness. Breathing or drinking high levels of 1,1,2,2-tetrachloroethane for a long time can cause liver damage. Drinking very large amounts of 1,1,2,2-tetrachloroethane can cause shallow breathing, faint pulse, decreased blood pressure, and possibly unconsciousness. The EPA characterizes 1,1,2,2-tetrachloroethane as likely to be carcinogenic to humans.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

33. Based on the Findings of Fact set forth above, and the administrative record supporting this AOC, EPA has determined that:

- a. Respondent is a "person" as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).
- b. The contaminants of concern are each a "solid waste" as defined in Section 1004(27) of RCRA, 42 U.S.C. § 6903(27), and/or a "hazardous waste" as defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5).
- c. The presence of solid wastes and/or hazardous wastes at and around the Site resulted from the past handling, storage, treatment, transportation, and/or disposal of solid and/or hazardous wastes.
- d. Respondent contributed to the handling, storage, treatment, transportation and/or disposal of solid and/or hazardous wastes at the Site.

- e. Conditions at the Site may present an imminent and substantial endangerment to human health and/or the environment within the meaning of Section 7003(a) of RCRA, 42 U.S.C. § 6973(a), as: (i) PCE is present in the groundwater at the Site and has migrated, and may continue to migrate; (ii) there is a municipal drinking water supply well field in use within the aquifer where the PCE plume is located; and (iii) unacceptable human exposures to hazardous wastes in soil, groundwater, and via vapor intrusion from the Site may result.
- f. The actions required by this AOC may be necessary to protect human health and/or the environment.

VII. ORDER ON CONSENT

34. Based upon the administrative record for the Site and the Findings of Fact (Section V) and Conclusions of Law and Determinations (Section VI) set forth above, and in consideration of the promises set forth herein, the provisions and requirements of this AOC are hereby agreed to and ordered. Respondent shall comply with all provisions of this AOC, including, but not limited to, all attachments to this AOC and all documents incorporated by reference into this AOC.

35. Respondent shall finance and perform the Work in accordance with this AOC, and all plans, deliverables, standards, specifications, and schedules set forth in this AOC or developed by Respondent and approved by EPA pursuant to this AOC.

VIII. CONTRACTORS AND PROJECT COORDINATORS

36. Selection of Contractors and Personnel. All Work performed by, or on behalf of, Respondent under this AOC shall be under the direction and supervision of qualified personnel. The qualifications of the persons undertaking the Work for Respondent shall be subject to EPA's review and approval, for verification that such persons meet EPA's minimum technical background and experience requirements.

37. On or before the Effective Date, and before the Work begins, Respondent shall notify EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants, and laboratories, to be used in carrying out the Work.

38. Project Coordinators. Respondent shall notify EPA in writing within five (5) days of the Effective Date of the name, address, phone number, email address, and qualifications of its Project Coordinator. EPA's Project Coordinator is:

Mary Grisolano
U.S. Environmental Protection Agency, Region 7
AWMD/WRAP
901 North 5th Street
Kansas City, Kansas 66101
(913) 551-7657
grisolano.mary@epa.gov.

The Project Coordinators shall be responsible for overseeing the implementation of this AOC. EPA and Respondent have the right to change their respective Project Coordinators. Respondent shall notify EPA of any proposed change in Project Coordinator at least ten (10) days prior to the effective date of such change.

39. EPA retains the right to approve/disapprove of Respondent's Project Coordinator (original or replacement) based upon that person's qualifications and ability to effectively perform this role. If EPA disapproves of Respondent's new Project Coordinator, Respondent shall retain a different Project Coordinator and shall notify EPA of that person's name, address, phone number, electronic mail address and qualifications within two (2) days following EPA's disapproval. All persons performing Work under the direction and supervision of Respondent's Project Coordinator must possess all necessary professional licenses required by federal and state law.

40. EPA's Project Coordinator shall be EPA's designated representative for this AOC and the Work. Unless otherwise provided in this AOC, all reports, correspondence, notices, or other submittals relating to or required under this AOC shall be in writing and shall be sent to EPA's Project Coordinator at the address specified in paragraph 38, unless notice is given in writing to Respondent of a change in address. In addition to providing submittals to EPA's Project Coordinator, Respondent shall, contemporaneous with providing the submittal to EPA, provide one copy of each submittal made to EPA pursuant to this AOC to:

Ed Southwick
Supervisor, RCRA/Federal Facilities Unit
Remediation Section, Waste Mgmt. Div.
Nebraska Department of Environmental Quality
1200 N Street, Suite 400, P.O. Box 98922
Lincoln, Nebraska 68509-8922
(402) 471-2181
ed.southwick@nebraska.gov.

Reports, deliverables, correspondence, notices or other submittals shall be delivered by U.S. Postal Service, private courier service, or e-mail, as specified by EPA's Project Coordinator. All submittals and correspondence shall include a reference to EPA Docket No. RCRA 07-2012-0016.

41. Respondent shall undertake and complete all of the Work to the satisfaction of EPA, pursuant to Section 7003 of RCRA, 42 U.S.C. § 6973. All the Work performed pursuant to this AOC shall be under the direction and supervision of Respondent's Project Coordinator and shall be in accordance with the terms of this AOC.

42. The Work undertaken pursuant to this AOC shall be conducted in compliance with all applicable EPA regulations, guidances, policies and procedures, and with this AOC and the attached SOW, and is subject to EPA approval.

IX. WORK TO BE PERFORMED

43. Respondent shall perform the following corrective measures identified in the FRD-RTC (Attachment 3) issued by EPA, in accordance with the SOW (Attachment 1) attached to this AOC, to prevent, mitigate and/or remediate the release or migration of hazardous wastes and/or hazardous constituents at and from the Site. In addition, Respondent shall immediately post a sign at the Site in accordance with the requirements of Section 7003(c) of RCRA, 42 U.S.C. § 6973(c). The sign shall be posted in a prominent place at the facility and shall state, in lettering not less than 1.5 inches in height:

“ATTENTION: Dudley Laundry, Inc. is implementing corrective measures under an Administrative Order on Consent with the Environmental Protection Agency, to address dry cleaning solvents and related chemicals in soil and groundwater at this property. Federal law requires that this notice be posted at any property where conditions may present an endangerment to human health or the environment.

Within thirty (30) days of the Effective Date of this AOC, Respondents shall provide photographic documentation to the EPA project manager that the sign has been posted. Failure to post the sign as directed in this paragraph will constitute a violation of this AOC.

44. Remediation Goals. The Remediation Goals for Site-related contaminants are provided in Attachment 4 to this AOC. The Remediation Goals are established for restricted use and require that a land use control be filed, pursuant to paragraph 61, to prohibit use of the Site property for residential purposes and to prohibit domestic or potable groundwater use at the Site. Attainment of the Remediation Goals is required by this AOC as defined in this AOC and attachments. The Remediation Goal for soil is to reduce concentrations of hazardous constituents below those provided for Soil in Attachment 4. The Remediation Goal for soil vapor is to reduce concentrations at the Site below those provided for Subslab Air in Attachment 4. The Remediation Goal for the vapor intrusion pathway is to reduce indoor air concentrations at the Site below those provided for Indoor Air in Attachment 4. The Remediation Goal for groundwater applies at two locations. The groundwater concentrations in the Site production well must remain below those provided for the production well in Attachment 4. The Respondent must maintain control of the groundwater contamination so that concentrations in the City Water Supply remain below MCLs for Site-related chemicals. EPA may require additional work in accordance with this AOC if the Remediation Goals are not met as specified in this AOC.

45. All Work undertaken pursuant to this AOC shall be developed and performed in compliance with all applicable EPA guidance, policies and procedures, this AOC, and is subject to EPA approval.

46. All plans submitted to EPA for approval shall include a schedule of the Work to be performed. Following EPA's approval or modification of any plan pursuant to Paragraph 73, Respondent shall implement the plan in accordance with the schedule and provisions approved by EPA.

Task 1 - Soil Vapor Extraction – Construction Complete Report, Performance Monitoring Plan, and Operation and Maintenance Plan

47. Following EPA's July 29, 2011, selection of a Final Remedy, Respondent designed and installed a soil vapor extraction (SVE) system, independent of EPA review and general oversight. The Respondent developed the following documents independent of EPA review and approval: the conceptual design, intermediate design, final design, and construction workplan. If EPA determines upon review of the Construction Completion Report required in paragraph 48 that the design is inadequate, the Respondent shall adjust the final design of the SVE system as required by EPA in accordance with paragraph 49 below and elsewhere in this AOC.

48. Within thirty (30) days after the Effective Date, Respondent shall submit to EPA for review and approval a SVE Construction Complete Report (CCR) prepared in accordance with Task 1 of the SOW.

49. Following initial review of the CCR in accordance with Section X of the AOC (EPA Approval of Deliverables), or during operation of the system, EPA may require additional system components or other changes in the system. Following Respondent's receipt of EPA's approval or modification of the CCR pursuant to paragraph 73, Respondent shall implement all activities required by the EPA-approved CCR in accordance with the approved schedule. If, during operation of the SVE system, EPA determines that the design of the SVE system will not remediate soils, soil vapor, and/or indoor air to the Remediation Goals set forth in Attachment 4 and this AOC, Respondent shall submit to EPA, within 30 days of EPA's notice, a workplan for changes to the SVE system in accordance with current EPA guidance on design of corrective measures systems and Section XXVI of the AOC (Additional Work). This submittal shall include a schedule for implementing changes to the SVE system. The submittal shall specify the work required for the revision of the design, construction, implementation, operation, maintenance, and continued performance monitoring of the SVE system as required by EPA. This may include submittal of conceptual design, intermediate plans/specifications, final plans/specifications, revised O&M Plan, and/or a construction work plan, as described in current EPA guidance. Upon EPA approval or modification of the submittal pursuant to paragraph 73, the Respondent shall construct, install and operate the system in accordance with this AOC/SOW, the EPA-approved submittal, and the schedule provided in the EPA-approved submittal.

50. Within 30 days of the Effective Date, Respondent shall submit to EPA for review and approval a Performance Monitoring Plan developed in accordance with Task 1 of the SOW. The plan shall be designed to evaluate the effectiveness of the SVE system, with respect to reducing soil, soil vapor, and indoor air contamination to meet the Remediation Goals specified in Attachment 4. This submittal shall include an associated Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) prepared in accordance with Task 2 of the SOW. Following Respondent's receipt of EPA's approval or modification of the Performance Monitoring Plan pursuant to paragraph 73, Respondent shall implement all activities required by the approved plan in accordance with the approved schedule.

51. The Performance Monitoring Plan shall include a determination of the time required to meet the Remediation Goals for soil and soil vapor and shall identify potential contingencies if the SVE system will not meet the Remediation Goals within the specified time frame. The Performance Monitoring Plan shall include a schedule for reporting the failure of the system to meet Remediation Goals to the EPA and the procedures that will be used to propose, develop, and implement additional work to rectify the failure. The Performance Monitoring Plan, including calculated time frame and contingencies, are subject to EPA approval in accordance with this AOC. If the SVE system will not meet the Remediation Goals within the EPA-approved time frames, the EPA may determine that additional work is required that may include modification of the SVE system or other additional work.

52. If, following EPA's review of the first annual Progress Report, EPA determines that the SVE system does not reduce contaminant concentrations in indoor air below Remediation Goals set forth in Attachment 4, Respondent shall submit to EPA a work plan for installation of a vapor mitigation system for buildings on-Site. This workplan will be reviewed by EPA in accordance with Section X of the AOC (EPA Approval of Deliverables). Following Respondent's receipt of EPA's approval or modification of the vapor mitigation system work plan pursuant to paragraph 73, Respondent shall implement all activities required by the approved plan in accordance with the approved schedule.

53. Within 30 days of the Effective Date, Respondent shall submit to EPA an Operation and Maintenance Plan (O&M Plan) for the SVE system outlining procedures for performing operations and long term maintenance of the SVE system, developed in accordance with Task 1 of the SOW. This submittal shall include an associated Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP), if necessary, prepared in accordance with Task 2 of the SOW. Following Respondent's receipt of EPA's approval of the O&M Plan pursuant to paragraph 73, Respondent shall implement all activities required by the approved plan in accordance with the approved schedule.

Task 2 – Remedy Performance Evaluation – Groundwater Monitoring Work Plan, Sampling and Analysis Plan (SAP), and Quality Assurance Project Plan (QAPP)

54. Within 30 days of the Effective Date, Respondent shall submit to EPA a Remedy Performance Evaluation – Groundwater Monitoring Work Plan (GW Work Plan) to include a SAP and QAPP prepared in accordance with Task 2 of the SOW. Following Respondent's receipt of EPA's approval of the GW Work Plan, SAP, and QAPP, pursuant to paragraph 73, Respondent shall implement all activities required by the approved plans in accordance with the approved schedule. The GW Work Plan shall include procedures for statistical analysis to determine if Remediation Goals are being exceeded and a schedule to report to EPA such exceedence.

55. If groundwater concentrations in the production well are shown to statistically exceed Remediation Goals, the Respondent shall submit a plan to EPA to eliminate the unacceptable exposure. The Respondent shall submit this plan within thirty (30) days of receipt of request for such plan by EPA and otherwise in accordance with Section XXVI of this AOC (Additional Work).

56. If groundwater concentrations at and near the Site indicate that concentrations of Site-related chemicals are increasing statistically to potentially cause Remediation Goals to be exceeded at the City Well Field, the Respondent shall submit a plan to EPA to address the increase in contaminant concentrations. The Respondent shall submit this plan within thirty (30) days of receipt of request for such plan by EPA and otherwise in accordance with Section XXVI of this AOC (Additional Work).

57. If the groundwater plume is not controlled to maintain Site-related chemical concentrations at the City Well Field below Remediation Goals, the Respondent shall submit a plan to EPA to eliminate the unacceptable exposure. The Respondent shall submit this plan within thirty (30) days of receipt of request for such plan by EPA and otherwise in accordance with Section XXVI of this AOC (Additional Work). Specifically, Respondent shall be responsible for determining that the water treatment system is capable of reducing Site-related chemical concentrations to meet Remediation Goals.

58. Respondent shall be responsible for attaining access to monitoring wells that are not owned by Respondent in accordance with this AOC. If such wells are damaged or abandoned, Respondent shall be responsible to repair or replace wells required to be monitored under this AOC in the same or similar design to the original well, in the approximate location of the original well (as granted access), and as approved by EPA in accordance with this AOC.

59. Within thirty (30) days after the Effective Date, Respondent shall prepare and adhere to a Health and Safety Plan (HSP) that protects workers conducting the Work from unacceptable exposures, as discussed in Task 2 of the SOW.

60. Respondent shall conduct the work required by any EPA-approved plan, work plan, SAP/QAPP, or other document developed in association with this AOC and in accordance with the schedules contained therein.

Task 3 - Institutional Control Plan

61. Within thirty (30) days after the Effective Date, Respondent shall submit to EPA for review and approval pursuant to paragraph 73 an Institutional Control Plan (ICP) prepared in accordance with Task 3 of the SOW. As provided in Task 3 of the SOW, the ICP shall include implementation of proprietary institutional controls for the Site in substantially the same form as Attachment 5 to this AOC. Proprietary institutional controls shall be filed on the Respondent's property in accordance with the timeframes contained within the EPA-approved ICP to control the land uses, maintain the integrity of the Soil Vapor Extraction system and any vapor intrusion control systems, prohibit Site use as residential, prohibit the use of water supply wells at the Site for domestic or potable purposes, require removal or remediation of contaminated soil if Site buildings/infrastructure are removed, and protect Site workers in the case of land disturbances.

62. Following Respondent's receipt of EPA's approval or modification of the ICP pursuant to paragraph 73, and in accordance with the schedule contained therein, Respondent shall implement all activities required by the ICP.

Task 4 - Enhanced Groundwater Monitoring Plan if Dudley Production Well Pumping Scheme Changes Significantly

63. The remedy is based, in part, on the continued operation of the Dudley production well at or near its current capacity. Sixty (60) days prior to a planned decrease in the pumping rate of the Site production well or within three (3) days of an unplanned decrease, Respondent shall report to EPA in writing details of the planned or unplanned change. EPA will determine if the change is significant to warrant preparation of an enhanced groundwater monitoring plan in accordance with Task 4 of the SOW by evaluating the impact on the remedy of the resulting change in hydraulic containment. Within thirty (30) days of a request by EPA, Respondent shall submit to EPA for review and approval pursuant to paragraph 73, a Production Well Enhanced Groundwater Monitoring Plan (and revised or new SAP/QAPP, if necessary) prepared in accordance with Tasks 2 and 4 of the SOW. If EPA determines that additional monitoring wells are necessary to adequately conduct the enhanced monitoring program, the Respondent shall install such wells, and add these wells to the monitoring program.

64. Respondent shall conduct the work required by any EPA-approved Production Well Enhanced Groundwater Monitoring Plan in accordance with the EPA-approved plan and associated SAP/QAPP and schedules contained therein.

Task 5 - Enhanced Groundwater Monitoring Plan if City Well Field Pumping Scheme Changes Significantly

65. The remedy is based, in part, on continued similar operation of the City's water supply and treatment system. Respondent shall contact the City two times per year, once in March and once in September to ask if there are any changes planned in the operation of the City's East Well Field or if there have been any changes in the past six months. Respondent shall notify EPA in writing within three (3) days of learning, by any means and at any time during the year, that a change is planned or has occurred in the operation of the City's East Well Field pumping or treatment scheme, with details on the change. EPA will determine if the change is significant to warrant preparation of an enhanced groundwater monitoring plan in accordance with Task 5 of the SOW by evaluating the impact on the remedy of the resulting change in hydraulic containment. Within thirty (30) days of a request by EPA, Respondent shall submit to EPA for review and approval pursuant to paragraph 73 a City Well Field Enhanced Groundwater Monitoring Plan (and revised or new SAP/QAPP, if necessary) prepared in accordance with Tasks 2 and 5 of the SOW. If EPA determines that additional monitoring wells are necessary to adequately conduct the enhanced monitoring program, the Respondent shall install such wells, and add these wells to the monitoring program.

66. Respondent shall conduct the work required by any EPA-approved City Well Field Enhanced Groundwater Monitoring Plan in accordance with the EPA-approved plan and associated SAP/QAPP and schedules contained therein.

Task 6 – Annual Progress Reports

67. Following the Effective Date, Respondent shall each year, within thirty (30) days of the anniversary of the Effective Date and while this AOC is in effect, submit to EPA written progress reports concerning actions undertaken pursuant to this AOC along with an evaluation of the effectiveness of the SVE system in reducing soil contaminant, soil vapor, and indoor air concentrations to the Remediation Goals identified in Attachment 4, and as performed in accordance with the EPA-approved Performance Monitoring Plan. These reports shall be subject to EPA review and approval in accordance with paragraph 73. These reports shall be prepared in accordance with Task 6 of the SOW.

68. If EPA determines that progress reports are required more frequently than at one-year intervals, then the EPA shall, at the same time EPA requests more frequent reports, specify the due dates for the progress reports. The Respondent shall submit the progress reports at the frequency required by EPA under this AOC and in accordance with the deadlines required by EPA in this AOC.

Task 7 – 5-Year Corrective Measures Performance Evaluation Report

69. Beginning five (5) years from the Effective Date, and every five (5) years thereafter until this AOC has been terminated pursuant to Section XXVII (Termination and Satisfaction), Respondent shall submit to EPA for review and approval pursuant to paragraph 73, a Five-Year Corrective Measures Performance Evaluation Report prepared in accordance with Task 7 of the SOW. Specifically, if EPA determines that the SVE remedy is ineffective in removing Site-related contamination in soil, groundwater, and indoor air to meet Remediation Goals, EPA may choose to require additional work in accordance with Section XXVII (Additional Work) and elsewhere in this AOC and EPA regulation and guidance. The additional work, at the Site, may include excavation of soil hot spots, or other hot spot treatment; additional vapor mitigation systems; adjustment to optimize the SVE system for source removal could include, targeted bioventing, multiphase extraction for light non-aqueous phase liquid (i.e., Stoddard solvent), relocation or installation of new SVE wells, in-situ chemical oxidation, or thermally enhanced SVE. The additional work at the City Well Field may include evaluation of the water treatment system to measure the system's ability to remove concentrations of Site-related chemicals to meet Remediation Goals, or determination of a change in the pumping scheme of the City Well Field to meet Remediation Goals. Respondent shall be responsible for conducting the aforementioned evaluations and work required at the Site and City Well Field system. The work at the City Well Field shall be dependent on access granted by the City. Upon a determination of additional work, the Respondent shall implement the additional work in accordance with the requirements of the remedy and this AOC.

Task 8 – Corrective Measures Completion Report

70. Within thirty (30) days after completion of all Work required by this AOC, including attainment of all Remediation Goals set forth in Attachment 4, Respondent shall submit to the EPA for review and approval pursuant to paragraph 73 a Corrective Measures Completion Report prepared in accordance with Task 8 of the SOW. When the EPA determines, after the

EPA's review of the Corrective Measures Completion Report, that all of the Work has been fully performed in accordance with this AOC, the EPA will provide written notice to Respondent and in accordance with Section XXVII of this AOC (Termination and Satisfaction).

71. If the EPA determines that any of the Work has not been completed in accordance with this AOC, the EPA will notify Respondent, provide a list of the deficiencies, and require Respondent to correct such deficiencies. Respondent shall correct such deficiencies and shall submit to EPA for review and approval pursuant to paragraph 73 a revised Corrective Measures Completion Report in accordance with the EPA's notice. Failure by Respondent to correct the deficiencies identified by the EPA shall be a violation of this AOC.

X. EPA APPROVAL OF DELIVERABLES

72. Deliverables required by this AOC shall be submitted to EPA for approval or modification pursuant to paragraph 73. All deliverables must be received at EPA by the due date specified in this AOC or in accordance with schedules developed and approved by EPA pursuant to this AOC.

73. After review of any deliverable that is required pursuant to this AOC, EPA will: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondent modify the submission; or (e) any combination of the above. However, EPA will not modify a submission without first providing Respondent at least one notice of deficiency and an opportunity to cure, except where EPA determines that to do so would seriously disrupt the Work or where EPA has disapproved previous submission(s) due to material defects and EPA determines that the deficiencies in the submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

74. In the event of approval, approval upon conditions, or modification by EPA, pursuant to paragraph 73, Respondent shall proceed to take any action required by the deliverable, as approved or modified by EPA subject only to Respondent's right to invoke the Dispute Resolution procedures set forth in Section XVII (Dispute Resolution) with respect to the modifications or conditions made by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to paragraph 73(c) and EPA determines that the submission has a material defect, EPA retains its right to seek stipulated penalties, as provided in Section XVIII (Penalties).

75. Resubmission of a Deliverable. Upon receipt of a notice of disapproval, in whole or in part, pursuant to paragraph 73, Respondent shall, within ten (10) days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the deliverable for approval. Any stipulated penalties applicable to the submission, as provided in Section XVIII (Penalties), shall accrue during the 10-day opportunity to cure period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in paragraphs 73 and 74.

76. Notwithstanding the receipt of a notice of disapproval pursuant to paragraph 73, Respondent shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission in accordance with the schedules contained therein. Implementation of any non-deficient portion of a submission shall not relieve Respondent of any liability for stipulated penalties for the deficient portion of the deliverable under Section XVIII (Penalties).

77. In the event that a resubmitted deliverable, or portion thereof, is disapproved by EPA, EPA may again require Respondent to correct the deficiencies, in accordance with the preceding paragraphs. EPA also retains the right to modify or develop the plan, report or other item. Respondent shall implement any action as required in a deliverable which has been modified or developed by EPA, subject only to Respondent's right to invoke the procedures set forth in Section XVII (Dispute Resolution).

78. If upon resubmission, a deliverable is disapproved or modified by EPA due to a material defect, Respondent shall be deemed to have failed to submit such deliverable timely and adequately unless Respondent invokes the dispute resolution procedures set forth in Section XVII (Dispute Resolution) and EPA's action to disapprove or modify a deliverable is overturned pursuant to that Section. The provisions of Section XVII (Dispute Resolution) and Section XVIII (Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or modification is upheld, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XVIII (Penalties).

79. All deliverables required to be submitted to EPA under this AOC, shall, upon approval or modification by EPA, be incorporated into and be enforceable under this AOC. In the event that EPA approves or modifies a portion of a deliverable required to be submitted to EPA under this AOC, the approved or modified portion shall be enforceable under this AOC. The Respondent shall not implement any proposed change to an EPA-approved deliverable until approval to implement such a change is received from EPA.

XI. MODIFICATION OF A DELIVERABLE REQUIRED BY THIS AOC

80. If at any time during the implementation of the Work, Respondent identifies a need for a compliance date modification or revision of any deliverable required by this AOC, Respondent shall submit a letter to EPA's Project Coordinator documenting the need for the modification or revision. EPA, in its discretion, will determine if the modification or revision is warranted and may provide written approval or disapproval. Any EPA-approved modified compliance date or deliverable required by this AOC (plan, report, or any other submittal) modification is incorporated by reference into this AOC.

81. **Emergency Response.** In the event of any action or occurrence during the performance of the Work that constitutes an emergency situation or may present an immediate threat to human health and the environment, Respondent shall immediately take all appropriate action to minimize such emergency or threat, and shall immediately notify EPA's Project Coordinator. Respondent shall take such immediate and appropriate actions in consultation with EPA's

Project Coordinator. Respondent shall then submit to EPA written notification of such emergency or threat at the Site within three (3) days of such discovery. Respondent shall thereafter submit to EPA for approval, within twenty (20) days, a deliverable/plan to mitigate this threat. EPA will approve or modify this deliverable/plan, and Respondent shall implement this deliverable/plan as approved or modified by EPA. In the case of an extreme emergency, Respondent may act as it deems appropriate, at its own risk, to protect human health or the environment.

XII. QUALITY ASSURANCE

82. Within thirty (30) days after the Effective Date, Respondent shall submit to EPA for review and approval a Quality Assurance Project Plan (QAPP) in accordance with Tasks 1, 2, 4 and 5 of the SOW. The QAPP shall address quality assurance, quality control, and chain of custody procedures for all sampling, monitoring and analytical activities undertaken by Respondent pursuant to this AOC. Respondent shall follow *EPA Requirements for Quality Assurance Project Plans* (EPA QA/R-5) (EPA/240/B-01/003, March 2001, reissued May 2006), *Guidance for Quality Assurance Project Plans* (EPA QA/G-5) (EPA/240/R-02/009, December 2002), and *EPA Requirements for Quality Management Plans* (EPA QA/R-2) (EPA/240/B-01/002, March 2001) as well as other applicable documents identified by EPA. The QAPP will be reviewed for approval by EPA in accordance with Section X. Upon EPA's approval, the QAPP shall be incorporated into this AOC.

83. As part of any deliverable submitted to EPA by Respondent pursuant to this AOC, Respondent shall include Data Quality Objectives for any data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended use as required by this AOC.

84. Respondent shall ensure that laboratories used by it for analyses perform such analyses according to the latest approved edition of *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)* or other methods approved by EPA. If methods other than EPA methods are to be used, Respondent shall specify all such protocols in the applicable deliverable. EPA may reject any data that does not meet the requirements of an approved deliverable and EPA analytical methods and may require resampling and additional analysis.

85. Respondent shall ensure that all laboratories it uses for analyses participate in a quality assurance/quality control (QA/QC) program equivalent to the program that EPA follows. Respondent shall, upon EPA's request, make arrangements for EPA to conduct a performance and QA/QC audit of the laboratories chosen by Respondent, whether before, during, or after sample analyses. Upon EPA's request, Respondent shall have its laboratories perform analyses of samples provided by EPA to demonstrate laboratory QA/QC and performance. If the audit reveals deficiencies in a laboratory's performance or QA/QC, Respondent shall submit a plan to address the deficiencies and EPA may require resampling and additional analysis.

86. EPA reserves the right to require a change in laboratories for reasons which may include, but shall not be limited to, QA/QC, performance, conflict of interest, or confidential agency audit information. In the event that EPA requires a laboratory change, Respondent shall propose to

EPA two alternative laboratories within thirty (30) days. Once EPA approves of the laboratory change, Respondent shall ensure that laboratory service shall be made available within fifteen (15) days.

XIII. DOCUMENT CERTIFICATION

87. Any report or other document submitted by Respondent pursuant to this AOC which makes recommendations as to whether or not further actions are necessary, or makes any representation concerning Respondent's compliance or noncompliance with any requirement of this AOC shall be certified by a responsible corporate officer of Respondent. Documents which EPA and Respondent agree will need such certification are listed in the Major Deliverables section of the SOW. If other documents are submitted without certification and EPA determines the documents need certification, Respondent will promptly provide such certification upon EPA's request. A responsible corporate officer means: a president, secretary, treasurer, or vice-president in charge of a principal business function, or any other person who performs similar policy or decision-making functions.

88. The certification required by paragraph 87 above, shall be in the following form:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, 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: _____

XIV. SAMPLING, ACCESS, AND DATA AVAILABILITY

89. All results of sampling, testing, modeling or other data generated (including raw data if requested) by Respondent, or on Respondent's behalf, during implementation of this AOC shall be validated by Respondent and submitted to EPA within thirty (30) days of Respondent's receipt of the data. Respondent shall tabulate data chronologically by media. EPA will make available to Respondent data generated by EPA for the purposes of oversight of the Work unless it is exempt from disclosure by any federal or state law or regulation. Upon request by EPA, Respondent shall submit all or any portion of any deliverable that Respondent is required to submit pursuant to this AOC in electronic form.

90. Respondent shall orally notify EPA at least thirty (30) days prior to conducting field sampling. At EPA's request, Respondent shall allow split or duplicate samples to be taken by EPA or EPA's representative.

91. Site Access. Pursuant to Section 3007(a) of RCRA, 42 U.S.C. § 6927(a), Respondent shall provide access to the Site at reasonable times to EPA and its representatives. Respondent shall also provide access at reasonable times for EPA and its representatives to all records and documentation in Respondent's possession or control, including those records and documents in the possession or control of Respondent's contractors and employees, related to the conditions at the Site and the actions conducted pursuant to this AOC. Respondent shall use its best efforts to gain access to areas owned by or in the possession of someone other than Respondent, as necessary to implement this AOC, as described in paragraph 93. Such access shall be provided to EPA and its representatives. These individuals shall be permitted to move freely about the Site and appropriate off-Site areas in order to conduct actions that EPA determines to be necessary. EPA and its representatives will notify Respondent of their presence on the Site by presenting their credentials or other government identification. All parties with access to the Site under this paragraph will comply with all approved health and safety plans and regulations.

92. Pursuant to this Section, any denial of access at reasonable times to any portion of Site owned or controlled by Respondent where a request for access was made for the purposes of determining compliance with this AOC and/or enforcing the requirements of RCRA or this AOC, shall be construed as a violation of the terms of this AOC subject to the penalty provisions outlined in Section XVIII (Penalties) of this AOC.

93. Access Agreements. Where action under this AOC is to be performed in areas owned by, or in possession of, someone other than Respondent, Respondent shall use its best efforts to obtain all necessary access agreements within thirty (30) days of approval of any deliverable required by this AOC for which access is necessary or as otherwise specified, in writing, by EPA's Project Coordinator. Any such access agreement shall provide for access by EPA and its representatives to move freely in order to conduct actions that EPA determines to be necessary. The access agreement shall specify that Respondent is not EPA's representative with respect to any liabilities associated with activities to be performed. Respondent shall provide EPA's Project Coordinator with copies of any access agreements. Respondent shall immediately notify EPA if, after using Respondent's best efforts, it is unable to obtain such agreements within the time required. "Best efforts," as used in this paragraph, shall include, at a minimum, a certified letter from Respondent to the present owner of such property requesting access agreements to permit Respondent, EPA, and EPA's representatives to enter such property, and the offer of payment of reasonable compensation in consideration of granting access. Respondent shall, within ten (10) days of its receipt of a denial of access, submit in writing, a description of its efforts to obtain access. EPA may, at its discretion, assist Respondent in obtaining access. In the event that EPA obtains access, Respondent shall undertake the Work on such property and Respondent shall reimburse EPA for all costs and attorney fees incurred by the United States in obtaining such access.

94. Confidential Business Information. Respondent may assert a claim of business confidentiality covering part or all of the information submitted to EPA pursuant to this AOC. Such a claim shall be asserted in accordance with 40 C.F.R. § 2.203 and in the manner described in 40 C.F.R. § 2.203(b) and substantiated with the information described in 40 C.F.R. § 2.204(e)(4). Information that EPA determines is confidential will be given the protection specified in 40 C.F.R. Part 2. If no such claim or substantiation accompanies the information when it is submitted to EPA, it may be made available to the public by EPA or the state without further notice to Respondent. Respondent agrees not to assert confidentiality claims with respect to any data related to Site conditions, sampling, monitoring or the Work performed pursuant to this AOC.

95. Privileged Documents. Respondent may assert that certain documents, records, or other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege, in lieu of providing such documents, Respondent shall provide EPA with the following: (a) the title of the document, record, or information; (b) the date of the document, record, or information; (c) the author's name and title; (d) the name and title of each addressee and recipient; (e) a description of the contents; and (f) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to this AOC shall be withheld on the grounds that they are privileged.

96. All data, information, and records created or maintained relating to any solid waste or hazardous waste found at the Site shall be made available to EPA upon request unless Respondent asserts a claim that such documents are legally privileged from disclosure. Respondent shall have the burden of demonstrating to EPA by clear and convincing evidence that such privilege exists.

97. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

98. Nothing in this AOC shall be construed to limit EPA's right of access, entry, inspection, and information gathering pursuant to applicable law, including but not limited to RCRA and CERCLA.

XV. COMPLIANCE WITH OTHER LAWS

99. Respondent shall perform all actions required by this AOC in accordance with all applicable local, state, and federal laws and regulations. Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations in a timely manner so as not to delay the Work required by this AOC.

XVI. RECORD RETENTION

100. Respondent shall preserve all documents and information, including raw data, relating to the Work performed under this AOC, or relating to any solid waste or hazardous waste found at the Site, for ten (10) years following termination of this AOC.
101. Respondent shall acquire and retain copies of all documents that relate to the Site that are in the possession of its employees, agents, accountants, contractors or attorneys.
102. Respondent shall make available to EPA all employees and persons, including contractors, who engage in activities under this AOC and ensure their cooperation with EPA with respect to this AOC.
103. Following the expiration of the ten-year retention period and ninety (90) days before any document or information is destroyed, Respondent shall notify EPA that such documents and information are available to EPA for inspection, and upon request, shall provide the originals or copies (at no cost) of such documents and information to EPA. Notification shall be in writing and shall reference EPA Docket No. RCRA-07-2012-0016 and shall be addressed to the Chief of EPA Region 7's Waste Remediation and Permits Branch, 901 North 5th Street, Kansas City, Kansas 66101. In addition, Respondent shall provide documents and information retained under this Section at any time before expiration of the ten-year retention period at the written request of EPA.
104. All documents pertaining to this AOC shall be stored by Respondent in a centralized location at the Site, or an alternative location mutually approved by Respondent and EPA, to promote easy access by EPA or its representatives.

XVII. DISPUTE RESOLUTION

105. Respondent shall raise any disputes concerning the Work required under this AOC to EPA in writing, within fifteen (15) days after receiving written notice from EPA regarding any aspect of the Work required under this AOC that Respondent disputes. EPA and Respondent shall expeditiously and informally attempt to resolve any disagreements. EPA's and Respondent's Project Coordinators shall first confer in an effort to resolve the dispute. If the Project Coordinators are unable to informally resolve the dispute within three (3) days of the first conference, Respondent shall notify EPA, within five (5) days, in writing of its objections. Written objections shall identify Respondent's objections, state the basis for those objections, and provide all data, analyses, and information relied upon by Respondent. EPA and Respondent then have an additional fourteen (14) days (or such other period of time as agreed to by the parties) from EPA's receipt of the objections to reach agreement. If an agreement is not reached within the fourteen (14) days (or such other period of time as agreed to by the parties), Respondent may request in writing, within five (5) days, a determination resolving the dispute by the Director of EPA Region 7's Air and Waste Management Division ("Division Director"), or his or her designee. The request should provide all information that Respondent believes is relevant to the dispute. If such request is submitted within five (5) days, the Division Director

will issue a written determination. EPA's final decision shall be incorporated into and become an enforceable part of this AOC and shall no longer be subject to dispute pursuant to this AOC. Respondent shall proceed in accordance with the Division Director's decision regarding the matter in dispute, regardless of whether Respondent agrees with the decision. If Respondent does not agree to perform or does not actually perform the Work in accordance with EPA's decision, EPA reserves the right in its sole discretion to conduct the Work itself, seek reimbursement from Respondent, seek enforcement of this AOC, seek stipulated penalties, and/or any other appropriate relief. Any disputes arising under this AOC are not subject to judicial review until such time as EPA seeks to enforce this AOC.

106. If EPA and Respondent reach agreement on the dispute at any stage, the agreement shall be set forth in writing and shall, upon signature of both parties, be incorporated into and become an enforceable part of this AOC.

107. The existence of a dispute and EPA's consideration of matters placed in dispute shall not excuse, toll, or suspend any compliance obligation or deadline required pursuant to this AOC during the pendency of the dispute resolution process except as agreed by EPA in writing. The invocation of dispute resolution does not stay the accrual of stipulated penalties under this AOC.

XVIII. PENALTIES

108. Stipulated Penalties. Upon Respondent's failure to comply with any requirement of this AOC, Respondent shall be liable for stipulated penalties in the amounts set forth below unless a Force Majeure event has occurred as defined in Section XIX (Force Majeure) and EPA has approved the extension of a deadline as required by Section XIX (Force Majeure). Compliance with this AOC by Respondent shall include completion of an activity or any matter under this AOC in accordance with this AOC, and within the specified time schedules approved under this AOC.

- (a) \$500 per day for the first through seventh days of non-compliance;
- (b) \$1,000 per day for the eighth through thirtieth days of non-compliance; and
- (c) \$3,000 per day for the thirty-first and each succeeding day of non-compliance thereafter.

109. Penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of correction of the violation or completion of the activity. Payment shall be due within thirty (30) days of Respondent's receipt of a written demand for payment from EPA. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this AOC, even where those violations concern the same event (e.g., submission of a deliverable required by this AOC that is late and is of unacceptable quality).

110. If payment is not made within thirty (30) days of the date of Respondent's receipt from EPA of a written demand for payment of the penalties or of the date of agreement or decision resolving the dispute, interest shall begin to accrue on any unpaid stipulated penalty balance beginning on the first day after Respondent's receipt of EPA's demand letter, or the date of the

agreement or decision resolving the dispute, and will accrue until such penalties and interest have been paid in full. Interest shall accrue at the Current Value of Funds Rate established by the Secretary of the Treasury. An additional penalty of six percent (6%) per annum on any unpaid principal shall be assessed for any stipulated penalty payment which is overdue for ninety (90) days or more. The applicable rate of interest shall be the rate in effect at the time the interest accrues pursuant to 31 U.S.C. § 3717.

111. Respondent shall make payments required by this Section by money order, certified check, company check, or cashier's check payable to the "Treasurer of the United States" within thirty (30) days of Respondent's receipt of EPA's demand for payment, and shall be submitted to the following address:

U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Center
P.O. Box 979077
St. Louis, Missouri 63197-9000.

112. Any payment made pursuant to this Section shall reference EPA Docket No. RCRA-07-2012-0016. Respondent shall send simultaneous notices of such payments, including copies of the money order, certified check, company check, cashier's check to EPA's Project Coordinator.

113. Respondent may dispute an EPA determination that it failed to comply with this AOC by invoking the dispute resolution procedures in Section XVII (Dispute Resolution) unless the matter has already been in or is the subject of dispute resolution. Penalties shall accrue but need not be paid during the dispute resolution period. If Respondent does not prevail upon resolution, all penalties shall be due to EPA within thirty (30) days of resolution of the dispute. If Respondent prevails upon resolution, no penalties shall be paid. In the event that Respondent prevails in part, penalties shall be due on those matters in which Respondent did not prevail, as determined by the Division Director.

114. Neither the invocation of dispute resolution nor the payment of penalties shall alter in any way Respondent's obligation to comply with this AOC. 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 this AOC.

115. No payments under this Section shall be deducted for federal tax purposes.

116. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this AOC.

117. Civil Penalties. Violation of this AOC may subject Respondent to civil penalties as provided for in Section 7003(b) of RCRA, 42 U.S.C. § 6973(b), as adjusted pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Debt Collection Improvement Act of 1996, 28 U.S.C. § 2461. If Respondent violates this AOC, EPA may carry

out the required actions unilaterally, pursuant to any applicable authorities, and/or may seek judicial enforcement of this AOC.

XIX. FORCE MAJEURE

118. Respondent agrees to perform all requirements of this AOC within the time limits established under this AOC, unless the performance is delayed by a force majeure. For purposes of this AOC, a force majeure is defined as any event arising from causes beyond the control of Respondent, or any entity controlled by Respondent or Respondent's representatives, which delays or prevents performance of any obligation under this AOC despite Respondent's best efforts to fulfill the obligation. The requirement that Respondent exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any potential force majeure event: (a) as it is occurring; and (b) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. Force majeure does not include financial inability to complete the Work, increased cost of performance, changes in Respondent's business or economic circumstances, or inability to attain media cleanup standards.

119. If any event occurs or has occurred that may delay the performance of any obligation under this AOC, whether or not caused by a force majeure event, Respondent shall orally notify EPA within forty-eight (48) hours of when Respondent knew or should have known that the event might cause a delay. Such notice shall: (a) identify the event causing the delay, or anticipated to cause delay, and the anticipated duration of the delay; (b) provide Respondent's rationale for attributing such delay to a force majeure event; (c) state the measures taken or to be taken to prevent or minimize the delay; (d) estimate the timetable for implementation of those measures; and (e) state whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health or the environment. Respondent shall undertake best efforts to avoid and minimize the delay. Failure to comply with the notice provision of this paragraph and to undertake best efforts to avoid and minimize the delay shall waive any claim of force majeure by Respondent. Respondent shall be deemed to have notice of any circumstances of which its representatives had or should have had notice.

120. If EPA determines that a delay in performance or anticipated delay in fulfilling a requirement of this AOC is or was attributable to a force majeure, then the time period for performance of that requirement will be extended as deemed necessary by EPA. If EPA determines that the delay or anticipated delay has been or will be caused by a force majeure, then EPA will notify Respondent, in writing, of the length of the extension, if any, for performance of such obligations affected by the force majeure. Any such extensions shall not alter Respondent's obligation to perform or complete other tasks required by this AOC which are not directly affected by the force majeure.

121. If EPA disagrees with Respondent's assertion of a force majeure, then Respondent may elect to invoke the dispute resolution provision, and shall follow the procedures set forth in Section XVII (Dispute Resolution). In any such proceeding, Respondent shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure, that the duration of the delay or the extension sought was or

will be warranted under the circumstances, that Respondent's best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of this Section. If Respondent satisfies this burden, then EPA will extend the time for performance as EPA determines necessary.

XX. RESERVATION OF RIGHTS

122. Notwithstanding any other provisions of this AOC, the United States retains all of its authority to take, direct, or order any and all actions necessary to protect public health or the environment or to prevent, abate, or minimize an actual or threatened release of solid wastes, hazardous wastes, or constituents of such wastes, hazardous substances, pollutants, or contaminants, on, at, or from the Site, including but not limited to the right to bring enforcement actions under RCRA, CERCLA, and any other applicable statutes or regulations.

123. EPA reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to Respondent's failure to comply with any of the requirements of this AOC, including, without limitation, the assessment of penalties under Section 7003 of RCRA, 42 U.S.C. § 6973.

124. This AOC shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, claims, and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory, or common law authority of the United States.

125. This AOC is not intended to be nor shall it be construed to be a permit. Respondent acknowledges and agrees that EPA's approval of the Work and/or any deliverable required by this AOC does not constitute a warranty or representation that the Work and/or such deliverable will achieve the required cleanup or performance standards. Compliance by Respondent with the terms of this AOC shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.

126. Notwithstanding any other provision of this AOC, no action or decision by EPA pursuant to this AOC, including without limitation, decisions of the Division Director, or any representative of EPA, shall constitute final agency action giving rise to any right of judicial review prior to EPA's initiation of a judicial action to enforce this AOC, including an action for penalties or an action to compel Respondent's compliance with this AOC.

XXI. OTHER CLAIMS

127. By issuance of this AOC, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA will not be deemed a party to any contract, agreement or other arrangement entered into by Respondent or its officers, directors, employees, agents, successors, assigns, heirs, trustees, receivers, contractors, or consultants in carrying out actions pursuant to this AOC.

128. Respondent waives all claims against the United States relating to or arising out of conduct of this AOC, including, but not limited to, contribution and counterclaims.

129. Respondent shall bear its own litigation costs and attorney fees.

130. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive or other appropriate relief relating to the Site, Respondent shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been raised in the present matter.

XXII. INSURANCE

131. Prior to commencing the Work, Respondent shall secure, and shall maintain in force for the duration of this AOC and for two (2) years after the completion of all activities required by this AOC, comprehensive general liability insurance and automobile insurance with limits of one million dollars, combined single limit, naming EPA as an additional insured. Prior to commencement of the Work under this AOC, and annually thereafter on the anniversary of the Effective Date of this AOC, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. If Respondent demonstrates by evidence satisfactory to EPA that its contractors and subcontractors maintain insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by the contractors and subcontractors.

132. For the duration of this AOC, Respondent shall satisfy, or shall ensure that their contractors or subcontractors satisfy all applicable laws and regulations regarding the provision of employer's liability insurance and worker's compensation insurance for all persons performing the Work on behalf of Respondent, in furtherance of this AOC.

133. At least seven (7) days prior to commencing the Work under this AOC, Respondent shall certify to EPA that its contractors and subcontractors have obtained the required insurance.

XXIII. COST ESTIMATES AND FINANCIAL ASSURANCE

134. Cost Estimates. Within thirty (30) days after the Effective Date, Respondent shall submit to EPA for review and approval a detailed written initial estimate, in current dollars, of the cost of hiring a third party to perform the Work described in Section IX (Work to be Performed) and the attached SOW. A third party is a party who: (a) is neither a parent nor a subsidiary of Respondent; and (b) does not share a common parent or subsidiary with Respondent. The initial cost estimate must account for the total costs of the work activities described in Section IX (Work to be Performed) and the SOW for the entire period of this AOC, including any necessary long term costs, such as operation and maintenance costs, monitoring costs, and institutional controls. The cost estimate must not incorporate any salvage value that

may be realized from the sale of wastes, structures, equipment, land or other assets associated with the Site.

135. Concurrent with the submission of any subsequent deliverable required by this AOC, including additional work required under Section XXVI (Additional Work), Respondent shall submit revised detailed written estimate(s), in current dollars, of the cost of hiring a third party to perform the Work.

136. Respondent must annually review, and adjust the cost estimate(s) by December 31st of each year until the Work required by this AOC is completed. The cost estimate will consider future tasks required by the SOW and significant changes in projected future expenditure as compared to the initial estimate. In addition, Respondent shall adjust the cost estimate if EPA determines that any additional work is required, pursuant to Section XXVI (Additional Work), or if any other conditions increase the cost of the Work to be performed under this AOC.

137. Respondent shall submit each cost estimate to EPA for review, pursuant to Section X (EPA Approval of Deliverables).

138. Assurances of Financial Responsibility for Completing the Work. In order to secure the completion of the Work in accordance with this AOC, Respondent shall establish financial assurance in the form of a trust fund 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 U.S. federal or state agency and that is acceptable to EPA, or in the alternative, establish financial assurance as provided at 40 C.F.R. § 264.143 but limited to a surety bond, letter of credit, or trust agreement establishing the trust fund equaling the cost estimate, or a combination of those forms ("alternate form of financial assurance"). The trust agreement shall provide that the trustee shall make payments from the fund only for the costs of performing the Work required under this AOC, and only after EPA has advised the trustee that the Work has been performed in accordance with the requirements of the approved deliverable required by this AOC. 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 AOC has been successfully completed.

139. Respondent shall submit a draft trust agreement or alternate form of financial assurance as described in paragraph 138 to EPA for review pursuant to Section X (EPA Approval of Deliverables) within thirty (30) days after the Effective Date of this AOC, concurrently with Respondent's submission of the initial cost estimate required by paragraph 134.

140. The trust agreement or alternate form of financial assurance as described in paragraph 138 shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion.

141. Within thirty (30) days after EPA's approval of both the initial cost estimate and the draft trust agreement or alternate form of financial assurance as described in paragraph 138, whichever date is later, Respondent shall establish a trust fund or alternate form of financial assurance as described in paragraph 138 in an amount at least equal to the cost estimate approved by EPA.

142. Respondent shall submit an original copy of the trust agreement or alternate form of financial assurance as described in paragraph 138 to EPA's Project Coordinator.

143. Whenever the annually adjusted estimate for the cost of completing the remaining Work exceeds the amount of financial assurance already provided pursuant to this Section, Respondent shall, within thirty (30) days thereafter, increase the amount of the trust fund to cover such cost increase. In addition, in the event that EPA determines at any time that the financial assurances provided pursuant to this AOC are inadequate (including, without limitation, the trust agreement or the trustee), Respondent shall, within thirty (30) days after receipt of notice of EPA's determination, correct the inadequacy. Furthermore, if at any time EPA notifies Respondent that the anticipated cost of completing the Work has increased, then, within thirty (30) days after receipt of such notification, Respondent shall increase the amount of the trust fund to cover such cost increase.

144. Respondent's inability to post financial assurance for completion of the Work shall in no way excuse performance of any other requirements of this AOC, including, without limitation, Respondent's obligation to complete the Work in strict accordance with the terms of this AOC.

145. 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 AOC, Respondent may, on any anniversary date of the Effective Date of this AOC, or at any other time agreed to by EPA and Respondent, submit a written proposal to EPA to reduce the amount of the financial assurance provided under this Section 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. The decision whether to approve a proposal to reduce the amount of financial assurance shall be within EPA's sole discretion and EPA shall notify Respondent of its decision regarding such a proposal in writing. Respondent may reduce the amount of the financial assurance only after receiving EPA's written decision and 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 by this Section only in accordance with a final administrative decision resolving such dispute under Section XVII (Dispute Resolution) of this AOC.

146. Release of Financial Assurance. Respondent may submit a written request to the Division Director that it be released from the requirement to maintain financial assurance under this Section at such time as EPA has provided written notice, pursuant to Section XXVII (Termination and Satisfaction) that Respondent has demonstrated that all the terms of this AOC have been addressed to the satisfaction of EPA. The Division Director will notify both Respondent and the trustee in the case of a trust, or any other party necessary in the case of an alternate form of financial assurance as described in paragraph 138, in writing that Respondent is released from all financial assurance obligations under this AOC.

XXIV. INDEMNIFICATION

147. Respondent agrees to indemnify, save and hold harmless the United States, its officials, agents, contractors, employees, and representatives from any and all claims or causes of action: (a) arising from, or on account of, acts or omissions of Respondent, Respondent's directors, officers, employees, agents, successors, assigns, heirs, trustees, receivers, contractors, or consultants in carrying out actions pursuant to this AOC; and (b) for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any persons for performance of the Work on or relating to the Site, including claims on account of construction delays. In addition, Respondent agrees to pay to the United States all costs incurred by the United States, including litigation costs arising from or on account of claims made against the United States based on any of the acts or omissions referred to in the preceding sentence.

XXV. MODIFICATION OF THIS AOC

148. Except for modification of a deliverable required by this AOC as provided in Section XI and modification by EPA to incorporate a new remedy, this AOC may only be modified by the mutual agreement of EPA and Respondent. Any agreed modification shall: be in writing; be signed by EPA and Respondent; have as its effective date the date on which the modification is signed by EPA; and be incorporated into this AOC.

149. No informal advice, guidance, suggestion, or comment by EPA regarding deliverables (i.e., reports, plans, specifications, schedules, or any other writing) submitted by Respondent shall relieve Respondent of its obligation to obtain such formal approval as may be required by this AOC, and to comply with all requirements of this AOC unless it is formally modified. Any deliverables, plans, technical memoranda, reports, specifications, schedules and attachments required by this AOC are, upon approval by EPA, incorporated into and enforceable under this AOC.

XXVI. ADDITIONAL WORK

150. EPA may determine, or Respondent may propose, that certain tasks are necessary in addition to or in lieu of the tasks included in any EPA-approved deliverable required by this AOC when such additional work is necessary to meet the objectives set forth in this AOC. EPA may determine that Respondent shall perform any additional work and EPA will specify, in writing, the basis for its determination that any additional work is necessary. Within five (5) days after the receipt of such determination, Respondent shall have the opportunity to meet or confer with EPA to discuss any additional work. Respondent shall submit for EPA approval a deliverable describing the plan to conduct the additional work. Such a deliverable shall be submitted within ten (10) days of Respondent's receipt of EPA's determination that any additional work is necessary, or according to an alternative schedule established by EPA. All deliverables submitted in accordance with this paragraph shall be subject to review and approval by EPA in accordance with Section X of the AOC (EPA Approval of Deliverables). Upon approval of a deliverable for any additional work, Respondent shall implement the deliverable

for any additional work in accordance with the schedule and provisions contained therein. The deliverable outlining additional work shall be incorporated by reference into this AOC.

XXVII. TERMINATION AND SATISFACTION

151. This AOC shall be deemed terminated and satisfied by Respondent upon written notice from EPA that Respondent has demonstrated that all of the terms of this AOC, including any additional work as may be performed pursuant to Section XXVI (Additional Work) and any stipulated penalties demanded by EPA under Section XVIII (Penalties), have been addressed to the satisfaction of EPA. Termination of this AOC shall not terminate Respondent's obligation to comply with Sections XIV (Sampling, Access, and Data Availability), XVI (Record Retention), XX (Reservation of Rights), and XXIV (Indemnification) of this AOC, and to maintain engineering and institutional controls.

XXVIII. PUBLIC COMMENT ON THIS AOC

152. EPA will provide public notice, opportunity for a public meeting, and a reasonable opportunity for public comment on this AOC. After consideration of any comments submitted to EPA during the public comment period, EPA may withhold consent or seek to amend this AOC if EPA determines that comments received disclose facts or considerations which indicate that this AOC is inappropriate, improper, or inadequate.

XXIX. SEVERABILITY

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

XXX. EFFECTIVE DATE

154. This AOC shall be effective when EPA signs this AOC after the public comment period as specified in Section XXVIII (Public Comment on This AOC) above. Within three (3) business days after signing this AOC, EPA will provide to Respondent a copy of this AOC as fully executed by the parties and as filed with EPA's Regional Hearing Clerk.

155. The undersigned representative of Respondent certifies that he/she is fully authorized to enter into this AOC and to bind Respondent to this AOC. Respondent agrees not to contest the validity or terms of this AOC, or the procedures underlying or relating to it in any action brought by the United States, including EPA, to enforce its terms or seek penalties for its violation. Respondent retains its right to assert claims against any third parties with respect to this Site.

156. Respondent's obligation to perform the Work will begin on the Effective Date of this AOC.

AGREED TO:

DUDLEY LAUNDRY COMPANY, INC.

By: 
Signature

8/30/12
Date

Robert Dudley
Print Name

President
Title

AGREED TO AND ORDERED:

U.S. ENVIRONMENTAL PROTECTION AGENCY

By: Becky Weber
Becky Weber
Director
Air and Waste Management Division

11-27-12
Date

By: Robert Richards
Robert Richards
Attorney-Adviser
Office of Regional Counsel

Effective Date: 11-27-12, 2012

**ATTACHMENT 1
STATEMENT OF WORK
CORRECTIVE MEASURES IMPLEMENTATION**

**DUDLEY LAUNDRY COMPANY, INC.
NORFOLK, NEBRASKA
NED035093178**

INTRODUCTION AND PURPOSE: This Statement of Work (SOW) is incorporated into and made a part of the Administrative Order on Consent (AOC) entered into by Dudley Laundry Company, Inc. (Respondent) and the United States Environmental Protection Agency (EPA) for implementation of corrective measures at the Dudley Laundry Company, Inc. facility, 126 North 3rd Street, Norfolk, Nebraska (Site). The Respondent shall perform a Corrective Measures Implementation (CMI) program that implements the remedy (corrective measure) selected by EPA to prevent and remediate any migration or release of solid and/or hazardous wastes and/or hazardous constituents at, and/or from, the Site. The CMI program shall consist of the design, construction, operation, maintenance and performance monitoring of the corrective measures selected in the Final Remedy Decision and Response to Comments (FRD -RTC), dated July 29, 2011, or subsequent corrective measures deemed necessary by EPA. The FRD-RTC can be found in Attachment 3 of the AOC. The corrective measures program shall conform to EPA's *RCRA Corrective Action Plan*, EPA/520-R-94-004, OSWER Directive 9902.3-2A, May 1994, and all other applicable EPA guidance, including EPA's *Handbook of Groundwater Protection and Cleanup Policies for RCRA Corrective Action* (EPA 530-R-04-030), April 2004, and subsequent revisions and additions. The selected corrective measures must be implemented and maintained until the remediation goals, set forth in Attachment 4 to the AOC, and the conditions of the AOC have been met.

Scope - Actions required for the CMI include:

Task 1: Soil Vapor Extraction System – Construction Complete Report, Performance Monitoring Plan, and Operation and Maintenance Plan: The Respondent shall design, install, and operate a soil vapor extraction (SVE) system to address contaminated soil and vapor intrusion. The Respondent shall optimize the SVE system's effectiveness based on site geology, performance, and contaminants. The Respondent shall submit a Construction Complete Report (CCR) documenting the design of the SVE system. The Respondent shall develop and implement a Performance Monitoring Plan to evaluate the SVE system's performance. The Respondent shall develop and implement an operation and maintenance plan (O&M Plan) for the SVE system.

Task 2: Remedy Performance Evaluation – Groundwater Monitoring Work Plan, Sampling and Analysis Plan (SAP), and Quality Assurance Project Plan (QAPP) to Monitor Groundwater Concentrations for Remedy Performance Evaluation: The Respondent shall develop a Work Plan, Sampling and Analysis Plan (SAP) and a Quality Assurance Project Plan (QAPP) for

collection of samples to measure the overall remedy's performance and the movement of site-related contamination from the Site and/or towards the City Well Field.

Task 3: Institutional Control Plan: The Respondent shall prepare an Institutional Controls Plan (ICP) to provide land use controls at and near the Site to address current and future potentially unacceptable exposures. Proprietary institutional controls shall be filed on the Respondent's property to control the land uses, maintain the integrity of the SVE system and any vapor intrusion control systems, prohibit Site use as residential, prohibit the use of water supply wells for domestic or potable purposes, require removal/remediation of soil if Site buildings/infrastructure are removed, and protect site workers in the case of land disturbances. The ICP will evaluate the need for additional controls for areas between the Site and the City well field and develop plans to address contaminated soil in case the Site building or other structures are removed.

Task 4: Enhanced Groundwater Monitoring Plan if Dudley Production Well Pumping Scheme Changes Significantly: Upon request from EPA and within the time frames specified in the AOC, the Respondent shall submit an enhanced groundwater monitoring plan to EPA for review and approval that evaluates the local effect on groundwater resulting from a significant change in the operation of the Dudley production well.

Task 5: Enhanced Groundwater Monitoring Plan if Significant Change in City Well Field Operation: Upon request from EPA and within the time frames specified in the AOC, the Respondent shall submit an enhanced groundwater monitoring plan to EPA to evaluate the effect of a significant change in the operation of the City's Well Field on the migration of Site-related contamination towards the City Well Field.

Task 6: Annual Progress Reports: The Respondent shall submit an Annual Progress Report to EPA that reports on the performance of the corrective measures.

Task 7: 5-Year Corrective Measures Performance Evaluation Report: The Respondent shall evaluate the performance of the corrective measures at 5-year intervals and shall use the performance evaluation results to modify the corrective measures as necessary to optimize remedy performance; and

Task 8: Corrective Measures Completion Report: The Respondent shall submit a corrective measures completion report to EPA when all remediation goals are met to request termination of corrective measures. No action shall cease until EPA provides written approval.

TASK 1 Soil Vapor Extraction – Construction Complete Report, Performance Monitoring Plan, and Operation and Maintenance Plan: The Respondent shall design, install, and operate an SVE system as required by the FRD-RTC (see Attachment 3 to the AOC) in order to reduce VOC contamination in soil under the existing building and from indoor air breathing space by achieving the remediation goals in Attachment 4 to the AOC. The Respondent shall submit a Construction Complete Report (CCR) with design documents, a Performance Monitoring Plan, and an Operation and Maintenance Plan (O&M Plan), as required herein.

The Respondent has designed and installed the soil vapor extraction (SVE) system, independent of EPA review and general oversight. The Respondent developed the following documents independent of EPA review and approval: the conceptual design, intermediate design, final design, and construction workplan. This SOW addresses the current status of the SVE system as fully designed and installed. However, if EPA determines from review of the final design documents that the design is inadequate, the Respondent shall revise and resubmit the necessary documents as requested by EPA for EPA review and approval. The Respondent shall adjust the final design of the SVE system as required by EPA.

Construction Completion Report – Design Documents: Within the timeframe specified in the AOC, the Respondent shall submit to the EPA a Construction Complete Report (CCR, i.e., final design package) for the SVE system as it was installed at the Site. The CCR shall document the construction and implementation of the SVE system and shall include the final plans, detailed drawings, and specifications and all other documentation supporting the system design. The documents shall be of sufficient detail to allow EPA to complete its review. The CCR shall include the following applicable, and other as-built design documents, as the Final Plans and Specifications:

- General Site Plans;
- Process Flow Diagrams;
- Mechanical Drawings;
- Electrical Drawings;
- Piping and Instrumentation Diagrams;
- Structural Drawings;
- Excavation and Earthwork Drawings;
- Site Preparation and Field Work Standards;
- Construction Drawings;
- Installation Drawings;
- Equipment Lists;
- Detailed Specifications for Equipment and Material.

The CCR shall also include the following elements:

1. Synopsis of the corrective measure and design criteria;

2. Certification that the corrective measure was constructed in accordance with the Final Plans and Specifications;
3. Explanation and description of any modifications to the Final Plans and Specifications (from interim designs) and why such modifications were necessary and appropriate;
4. Results of any operational testing and/or monitoring, documenting how initial operation of the corrective measure compares to the design criteria;
5. Summary of significant activities that occurred during implementation/construction, including a discussion of problems encountered and how they were addressed;
6. Summary of any maintenance and inspection findings and records (include copies of key documents in appendices);
7. A description of any permits obtained and regulatory requirements;
8. Access, easements, and right-of-way issues encountered;
9. Description of the wastes generated by the construction of the SVE system and how they were managed. Also, discuss drainage and indicate how rainwater runoff was managed, if applicable;
10. Estimated duration for completion of the entire corrective measure (used to calculate cost estimate);
11. Cost estimate, including the capital, construction, and O&M costs for implementing the entire corrective measure;
12. The process and criteria for determining when the SVE system will achieve the remediation goals;
13. The process and criteria for determining when maintenance and monitoring may cease; and
14. A schedule for key elements of the SVE system operation, including when the system will begin or began full scale operations.

EPA will review the CCR in accordance with Section X of the AOC [EPA Approval of Deliverables]. EPA may require additional system components or other changes in the system to ensure compliance with the remediation goals set forth in Attachment 4. If EPA determines that the design of the SVE system is inadequate, EPA shall request modification in accordance with

the AOC. Upon receipt of such notice by EPA and within the time frames specified in the AOC, Respondent shall submit to EPA such changes in accordance with current EPA guidance on design of corrective measures systems. This submittal shall include a schedule for implementing changes to the SVE system. The submittal shall specify the work required for the revision of the design, construction, implementation, operation, maintenance, and continued performance monitoring of the SVE system as required by EPA. This may include submittal of conceptual design, intermediate plans/specifications, final plans/specifications, revised O&M Plan, and/or a construction work plan, as described in current EPA guidance. Upon EPA approval of the redesigned system, the Respondent shall construct, install and operate the system in accordance with this AOC/SOW and the schedule provided in the EPA-approved submittal.

Performance Monitoring Plan: Within the time frame specified in the AOC, the Respondent shall submit to EPA a Performance Monitoring Plan. EPA will review the Performance Monitoring Plan in accordance with Section X of the AOC [EPA Approval of Deliverables]. The plan shall be developed to evaluate the effectiveness of the SVE system, with respect to reducing soil contamination and indoor air contamination to achieve the remediation goals set forth in Attachment 4. The Performance Monitoring Plan shall include collection of data to evaluate compliance with remediation goals for soil, subsurface vapor, and indoor air. The Performance Monitoring Plan shall include calculations to estimate the length of time required to meet remediation goals for soil, subsurface vapor, and indoor air; and determination of goals for mass of contamination removed, to include time frames.

The remedy anticipated that the SVE system, by reducing soil contamination under the building, would reduce indoor air concentrations to meet the remediation goals. Indoor air samples shall be collected on a minimum of a quarterly basis for the first year of SVE system operation. The reduction of indoor air concentrations is required to be initially evaluated after one-year's operation of the SVE system. If EPA determines that indoor air concentrations have not been reduced to meet the remediation goals within a year, additional mitigation efforts specific to address vapor intrusion will be required by EPA. Respondent shall implement additional mitigation efforts required by EPA. Adjustment to effectively reduce indoor air concentrations could include installation of a vapor mitigation system installed specifically to target indoor air concentrations.

The Performance Monitoring Plan shall include, at a minimum, the following elements:

1. **Objectives and Decision Points** – A description of the purpose of the document and a summary description of the project; i.e., to measure the performance of the SVE system that will remove VOC contamination in soil and soil vapor under the existing Site infrastructure with the goal of achieving the remediation goals set forth in Attachment 4 for soil, soil vapor, and indoor air. The following shall be identified: remediation goals by media (identified in Attachment 4 to the AOC), goals for mass of contamination removed, goals for zone of influence, estimated time of SVE system operation required to attain remediation goals for soil, subsurface vapor, indoor air, and mass contamination

removed, monitoring objectives, and performance criteria (i.e., performance monitoring requirements) used to evaluate the performance of the SVE system. The plan shall provide plans to monitor the performance of the system including collection of data to evaluate the ability of the SVE system to meet remediation goals for soil, soil vapor, vapor intrusion, and to provide sufficient zone of influence to remove mass of contamination to meet the remediation goals. The plan will include development of procedures to define performance criteria and monitor the performance of the system for soil, soil vapor, vapor intrusion, and mass removed, to meet remediation goals. The plan shall describe decision points for continuing, modifying, or terminating performance monitoring.

2. **Description of Monitoring Network and Schedule** – The plan shall provide information on the monitoring network to evaluate the SVE system performance with respect to soil, soil vapor, mass removed, and vapor intrusion, including a list and map of monitoring locations and a monitoring schedule. Indoor air samples shall be collected on a minimum of a quarterly basis for the first year of SVE system operation.
3. **Sampling and Analysis** – Sampling and monitoring activities are required for effective performance monitoring of the corrective measure. To ensure that all information, data and resulting decisions are technically sound, statistically valid, and properly documented, the Respondent shall prepare a Sampling and Analysis Plan (SAP) and a Quality Assurance Project Plan (QAPP) as described in Task 2 to document all monitoring procedures, method parameters, analytical methods, sampling frequency, sampling procedures, field measurements, and statistical methods to be used for data interpretation.
4. **Evaluations of Remedy Effectiveness** – The plan shall describe the evaluations that will be performed to demonstrate the effectiveness of the corrective measures with respect to site-specific remediation goals. The section must specify the frequency of the evaluations and describe the type of data and the statistical analyses that will be used to assess effectiveness. After the first year of operation, the ability of the SVE system to reduce indoor air concentrations to meet the remediation goals shall be evaluated. The plan shall discuss the actions that will be taken if the indoor air remediation goals are not met within one year. Adjustment to effectively reduce indoor air concentrations to meet remediation goals could include installation of an alternative vapor mitigation system. The plan shall provide for timely notice to EPA and contingencies if the SVE system will not meet remediation goals within the calculated time frames.
5. **Verification of Attainment of Remediation Goals (Corrective Measures Completion Criteria)** – The plan shall describe the process and criteria for verifying attainment of all remediation goals and initiating termination of performance monitoring. Also, the plan shall describe the process and criteria for determining when

maintenance and monitoring may cease. The plan should be flexible and allow for future modifications based on observations of actual corrective measures performance. Satisfaction of the completion criteria will trigger preparation and submittal of the Corrective Measures Completion Report (see Task 8).

Operation and Maintenance Plan: Within the time frame specified in the AOC, the Respondent shall prepare and submit to EPA an Operation and Maintenance (O&M) Plan that outlines procedures for performing operations and long term maintenance of the SVE system. EPA will review and approve the O&M Plan in accordance with Section X of the AOC [EPA Approval of Deliverables]. The O&M Plan shall, at a minimum, include the following:

1. **Introduction/Purposes** – Describe the purpose of the document and provide a summary description of the project;
2. **Project Management** – Describe the management approach including levels of personnel authority and responsibility (including an organizational chart), lines of communication and the qualifications of key personnel who will operate and maintain the corrective measure(s) (including contractor personnel);
3. **System description** – Describe the SVE system components including:
 - a. Significant equipment;
 - b. Schematics or process diagrams to illustrate system design, operation, and ongoing maintenance of contaminant mitigation systems;
 - c. A description of the support requirements for appropriate service visits by experienced personnel to supervise the installation, adjustment, start-up and operation of contaminant mitigation systems;
4. **Personnel Training** – Describe the training process for O&M personnel including, training covering appropriate operational procedures once the start-up has been successfully accomplished;
5. **Start-Up Procedures** - If applicable, describe all applicable system start-up procedures including any operational testing. Include technical specifications governing treatment systems, and the contractor requirements for providing appropriate service visits by experienced personnel to supervise the installation, adjustment, startup and operation of the treatment systems;
6. **O&M Procedures** - Describe all normal operation and maintenance procedures including:
 - a. Tasks for operation;
 - b. Tasks for maintenance;

- c. Prescribed treatment or operation conditions; and
 - d. A schedule showing frequency of each O&M task;
7. **Data Management and Documentation Requirements** - Specify that the following information will be collected and maintained: progress report information; monitoring and laboratory data; records of operating costs; and personnel, maintenance and inspection records;
8. **Replacement Schedule** - Specify a replacement schedule for equipment and installed components;
9. **Waste Management Practices** - Describe any solid wastes/hazardous wastes which may be generated by the operation of the corrective measures components and describe how they will be managed. Also, if applicable, discuss drainage and indicate how rainwater runoff will be managed;
10. **Sampling and Analysis** – Sampling and monitoring activities may be needed for effective operation and maintenance of the corrective measure. To ensure that all information, data and resulting decisions are technically sound, statistically valid, and properly documented, and if data collection is necessary as part of the O&M of the SVE system, the Respondent shall prepare a Sampling and Analysis Plan (SAP) and a Quality Assurance Project Plan (QAPP) as described in Task 2 to document all sampling and/or monitoring procedures performed during the operation and maintenance activities;
11. **Contingency Procedures** - Describe, as applicable, the following types of contingency procedures necessary to ensure system operation in a manner protective of human health and the environment:
- a. Procedures to address system breakdowns and operational problems including a list of redundant and emergency back-up equipment and procedures;
 - b. Alternative procedures to be implemented if the corrective measure systems suffer complete failure. The alternative procedures must be able to achieve the remediation goals for the corrective measures until system operations are restored;
 - c. Specify that, in the event of a major breakdown and/or the failure of the SVE system, the Respondent shall notify EPA verbally or by email within 24 hours of the event. Within 72 hours, the Respondent shall report in writing what happened, what response action was/is being taken and/or is planned, and any potential impacts on human health and/or the environment; and
 - d. Specify the procedures to be implemented in the event that the corrective measure is experiencing major operational problems, is not performing to design specifications, and/or will not achieve the corrective measure objectives in the
-

expected time frame. The alternate procedures must be able to prevent release or threatened releases of hazardous wastes or constituents which may endanger human health and/or the environment or exceed media cleanup standards.

TASK 2: Remedy Performance Evaluation – Groundwater Monitoring Work Plan with Sampling and Analysis Plan and Quality Assurance Project Plan to Monitor Groundwater Concentrations for Remedy Performance Evaluation

The Respondent shall conduct a groundwater monitoring program at locations and at a rate sufficient to determine compliance with remediation goals and as required by the EPA. Within the timeframe specified in the AOC, the Respondent shall submit to EPA a Remedy Performance Evaluation – Groundwater Monitoring Work Plan (GW Work Plan), Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) that outline procedures for sampling and analyzing groundwater samples to provide the data required to evaluate the remedy's performance. This GW Work Plan and SAP/QAPP shall propose sample locations and frequency of sampling, subject to EPA review and approval in accordance with Section X of the AOC [EPA Approval of Deliverables]. The Respondent shall conduct sampling in accordance with the EPA-approved GW Work Plan, SAP/QAPP. Specifically, the Respondent shall measure groundwater concentrations as described below:

- From the production well to verify compliance with production well remediation goals,
- At the Site and between the Site and City Water Supply Field to determine if there is a statistically significant increase in Site-related chemical concentrations approaching the City Well Field,
- At and around the City Well Field to verify compliance with remediation goals.

The GW Work Plan shall include procedures for statistical analysis, where required, to determine if remediation goals are being exceeded and a schedule to report to EPA such exceedence. The GW Work Plan shall describe the process to submit a plan to EPA, with a schedule, to respond to an exceedence of a remediation goal.

The SAP shall be prepared in accordance with EPA guidance, including but not limited to EPA's *RCRA Ground-Water Monitoring Technical Enforcement Guidance Document* (OSWER-9950.1), September 1986 and EPA's *Ground-Water Sampling Guidelines for Superfund and RCRA Project Managers* (EPA 542-S-02-001), May 2002, the *RCRA Corrective Action Plan*, dated May 1994, OSWER Directive Number 9902.3-2A; EPA Document Number 520-R-94-004; and any subsequent revisions or editions; and the *RCRA Facility Investigation Guidance*, dated May 1989, OSWER Directive Number 9502.00-6D, EPA Document Number 530/SW-89-031, and any subsequent revisions or editions to these documents.

The QAPP shall be prepared in accordance with *EPA Requirements for Quality Assurance Project Plans* EPA QA/R-5, (EPA/240/B-01/003, March 2001, reissued May 2006), *Guidance for Quality Assurance Project Plans* (EPA QA/G-5) (EPA/240/R-02/009, December 2002), and

EPA Requirements for Quality Management Plans (EPA QA/R-2) (EPA/240/B-01/002, March 2001) and any subsequent revisions or editions to these documents.

Any statistical evaluation shall be consistent with EPA's *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (EPA 530-R-09-007), March 2009, and any subsequent revisions or additions.

The GW Work Plan, SAP/QAPP shall comply with EPA regulations and guidance and shall properly describe all sampling and monitoring activities necessary for effective implementation of the corrective measures, and to ensure that all information, data and resulting decisions are technically sound, statistically valid, and properly documented. The EPA will review the GW Work Plan, SAP, and QAPP in accordance Section X of the AOC [EPA Approval of Deliverables]. The Respondent shall prepare, maintain, and adhere to a health and safety plan during the project that assures the sampling activities are conducted in a manner that is protective of human health and the environment. EPA will not review or approve the health and safety plan.

The Respondent shall submit updates of the GW Work Plan, SAP/QAPP, either as amendments, or stand alone documents in accordance with Section X of the AOC [EPA Approval of Deliverables], Section XI of the AOC [Modification of a Deliverable Required by this AOC], Section XXVI [Additional Work], and elsewhere in the AOC. The updated plans shall be revised as appropriate to address the requirements of implementing the final corrective measures for the Site. The EPA will review all updates/revisions to the SAP/QAPP in accordance with Section X of the AOC [EPA Approval of Deliverables]. Changes to the GW Work Plan and any SAP/QAPP prepared under the AOC shall not be implemented until approved by EPA.

The SAP shall include, but not be limited to, the following:

1. Description of the management approach including levels of personnel authority and responsibility (including an organizational chart), lines of communication and the qualifications of key personnel who will conduct the groundwater monitoring program (including contractor personnel);
2. Documentation of remedial goal verification (how Respondents will demonstrate that the cleanup standards have been attained);
3. The SAP/QAPP shall include a schedule to report to EPA if groundwater concentrations are increasing statistically and/or remediation goals are exceeded;
4. Plans for the handling and management of all investigation-derived wastes, such as drilling spoils, water produced during well development, water produced during purging prior to groundwater sample collection, and fluids generated during decontamination of drilling and sampling equipment;

5. A map with all release areas shown and maps of all sampling points and depth intervals;
6. Description of monitoring network and schedule, including information on the monitoring network to evaluate the migration of contaminated groundwater. The section must specify sampling procedures by media, analytical methods, monitoring parameters by method, sampling frequency, and statistical methods to be used for data interpretation;
7. Replacement schedule for damaged monitoring wells and associated equipment and installed components;
8. An updated cost estimate for implementing the entire groundwater monitoring program (including all O&M costs); and,
9. A schedule for groundwater monitoring sample collection, analysis, and reporting.

The QAPP shall include, but is not limited to, the following:

1. The policies, organization, objectives, functional activities, and specific quality assurance and quality control activities designed to achieve the data quality objectives of the groundwater sampling program;
2. Procedures that will be performed during the groundwater sampling program to ensure that all information and data resulting from the program are technically defensible, representative, and accurate in support of evaluating compliance with remediation goals;
3. Methods for data acquisition, review, management, assessment, validation, verification, and reporting during implementation of the corrective measures;
4. Methods used to determine if remediation goals have been exceeded statistically;
5. Data Quality Objectives (DQOs), analytical and laboratory methods, field and laboratory quality assurance and quality control samples, chain-of-custody procedures, field measurement and/or analysis, containerization, preservation, handling, packaging, and shipment; and,
6. A laboratory-specific quality assurance manual or equivalent which is provided by the laboratory selected to perform sample analysis. Laboratory methods shall be in accordance with Waste Management System; Testing and Monitoring Activities; Final Rule: Methods Innovation Rule and SW-846 Final Update IIIB. [70 FR 34538, June 14, 2005].

TASK 3: Institutional Control Plan – Within the timeframe specified in the AOC, Respondents shall submit to EPA an Institutional Control Plan (ICP). The ICP will be reviewed and approved by the EPA in accordance with Section X of the AOC [EPA Approval of Deliverables]. The ICP shall include submittal to EPA for approval proprietary institutional controls in substantially the same form as Attachment 5 to the AOC. Upon EPA approval of the ICP and the final form of the proprietary institutional controls therein, Respondent shall file the proprietary institutional controls with the Recorder of Deeds for Madison County, Nebraska, within 30 days, and immediately commence implementation of the other elements of the ICP.

In addition to filing the proprietary controls, the ICP shall evaluate whether additional institutional controls, including but not limited to proprietary controls, are needed on properties between the Site and the City well field to control installation of water supply wells, and if needed, to submit such additional institutional controls to EPA for approval, and upon approval implement such institutional controls.

The ICP shall also describe plans for soil remediation and/or removal of sources of contamination, should in the future any digging, drilling, excavating, constructing, earth moving, or other land disturbing activities occur or be planned in areas of soil contamination at the Site or below an existing building or paved surface, including any repair, renovation or demolition of existing structures on the Property.

The ICP shall also describe the procedures that will be used to monitor the effectiveness of the ICs. The parties responsible for implementing, verifying, and monitoring effectiveness of ICs should be listed with their contact information. The ICP shall specify that the annual progress report, see Task 6, will provide an update on ICs, including verification that ICs were put in place and the results of monitoring the effectiveness of ICs.

TASK 4: Production Well Enhanced Groundwater Monitoring Plan: The remedy is based, in part, on the continued operation of the Dudley production well at or near its current capacity. Within the timeframe specified in the AOC and upon request by EPA for such a plan in response to a decrease in the operation of the Dudley Production Well, the Respondent shall submit to EPA for review and approval, a plan to increase groundwater monitoring at and near the Site. The enhanced monitoring plan shall include, at a minimum, the following elements: expanded list of monitoring wells to be sampled, frequency of sampling at each well, parameters to be analyzed for, reference that the groundwater sampling will be conducted in accordance with the EPA-approved SAP/QAPP, schedule for reporting results, and any other information deemed necessary by the EPA. This plan shall also include procedures for statistical analysis to determine if remediation goals are being exceeded and a schedule to report to EPA such exceedence. If the enhanced monitoring plan requires a modification to or preparation of a separate SAP/QAPP, such plans shall be submitted to EPA for review and approval with the enhanced monitoring plan and in accordance with the AOC and this SOW. The enhanced groundwater monitoring plan, SAP, and QAPP will be reviewed by EPA in accordance with

Section X of the AOC [EPA Approval of Deliverables]. If EPA determines that additional monitoring wells are necessary to adequately conduct the enhanced monitoring program, the Respondent shall install such wells, and add these wells to the monitoring program.

TASK 5: City Well Field Enhanced Groundwater Monitoring Plan: The remedy is based, in part, on continued similar operation of the City's water supply and treatment system. Because the operation of the City water supply system (pumping and treatment) is not under control of the Respondent, continued operation cannot be considered within their control. The Respondent shall contact the City of Norfolk as often as specified in the AOC (or more often, if Respondent becomes aware of an imminent change in the operation of the City's system) to determine if there are any changes planned in the intended operation of the City's Water Supply system in the upcoming time period and if any changes were implemented in the previous time period. This shall include any changes in the pumping scheme, discharge to an NPDES outfall, or the water treatment system. Information from the City regarding the operation of the well field shall be provided in the annual progress report, see Task 6. EPA shall use the information provided by the Respondent or otherwise obtained from the City of Norfolk to determine if a change in the City Well Field operation is significant to warrant an enhanced monitoring plan. EPA will determine if the change is significant by evaluating the impact on the remedy of the resulting change in hydraulic containment. Within the timeframe specified in the AOC and if there is a significant change in the operation of the City's system, as determined by the EPA, the Respondent shall submit to EPA for review and approval a plan to increase the groundwater monitoring at and near the City Well Field. The enhanced monitoring plan shall include, at a minimum, the following elements: expanded list of monitoring wells to be sampled, frequency of sampling at each well, parameters to be analyzed for, reference that the groundwater sampling will be conducted in accordance with the EPA-approved SAP/QAPP, schedule for reporting results, and any other information deemed necessary by the EPA. This plan shall include procedures to determine if remediation goals are being exceeded and a schedule to report to EPA such exceedence. If the enhanced monitoring plan requires a modification to or preparation of a separate SAP/QAPP, such plans shall be submitted to EPA for review and approval with the enhanced monitoring plan and in accordance with the AOC and this SOW. The enhanced groundwater monitoring plan, SAP, and QAPP will be reviewed by EPA in accordance with Section X of the AOC [EPA Approval of Deliverables]. If EPA determines that additional monitoring wells are necessary to adequately conduct the enhanced monitoring program, the Respondent shall install such wells, and add these wells to the monitoring program.

TASK 6: Annual Progress Reports – Within the timeframe specified in the AOC, the Respondent shall submit to the EPA signed annual progress reports. The EPA may adjust the frequency of progress reporting to address site-specific needs. For example, more frequent progress reports may be needed to track critical activities such as redesign of the SVE system or if an enhanced groundwater monitoring program is being conducted. If more frequent progress reports are deemed necessary, EPA will specify the new frequency for progress reports. The Progress Report shall provide information on the implementation, operation, and performance of the corrective measures at the Site, including SVE system operation, SVE system performance,

and groundwater monitoring, as well as IC verification, Dudley production well status and City well field status. If the remedy is determined to not be meeting the remediation goals, additional corrective action may be necessary as determined by the EPA. The progress reports shall, at a minimum, contain the following information to allow the EPA to monitor the progress of the corrective measures:

1. The first annual progress report shall provide data to show if the indoor air concentrations were reduced to below remediation goals. If the SVE system is unable to reduce these concentrations, additional action shall be proposed in the first year progress report;
2. Identification of the remediation goals by media (identified in Attachment 4 to the AOC), monitoring objectives, and performance criteria (i.e., performance monitoring requirements) used to evaluate the effectiveness of the corrective measures. Describe decision points for continuing, modifying, or terminating performance monitoring;
3. Results of the Performance Monitoring Plan on SVE system performance, monitoring, and O&M, to include a report on the mass removed and performance of the SVE system with respect to remediation of soil contamination and indoor air;
4. Summary of the SVE system effectiveness. Provide a comparison of system operation to predicted performance levels;
5. The evaluations performed to demonstrate the effectiveness of the corrective measures with respect to achieving site-specific remediation goals for the SVE system and groundwater monitoring. Provide a detailed discussion of new results and evaluations using tables, maps, and figures. Provide a discussion of new data with previous results and established performance criteria, including statistical analysis where necessary. Discuss uncertainty with statistical evaluations and data trends in relation to remedial goals;
6. Recommendations for action to optimize the remedy, based on interpretation and evaluation of the data in reference to remediation goals, monitoring objectives, and performance criteria. Include changes in the SVE system, additional vapor intrusion mitigation, groundwater pumping, monitoring program, institutional controls, and/or contingencies. Recommended actions may also include additional removal or other remedy modifications, implementation of contingency or alternative remedies, advancement to verification monitoring, or termination of performance monitoring based on achievement of remediation goals. No changes may be implemented prior to receiving EPA approval of such change;

7. Provide an evaluation of the conceptual site model (CSM) incorporating any new data or trends. Consider whether the new data fits the existing CSM and update or refine the CSM as necessary;
 8. Report the results of the groundwater monitoring program, including any enhanced programs being implemented. Report if results indicate plume expansion or water supply well concentrations are approaching drinking water standards, i.e., MCLs. If so, additional corrective measures may be required, to be determined by EPA;
 9. Report if the Site building and/or infrastructure were removed during the reporting period or are planned to be removed in the coming reporting period. If removed over the area of soil contamination, the report shall include plans to investigate and/or remediate or remove soil contamination;
 10. Describe significant activities (e.g., sampling events, inspections, etc.) and work completed/work accomplishments (e.g., performance levels achieved, hours of operation, treated and/or excavated volumes, concentration of contaminants in treated and/or excavated volumes, nature and volume of wastes generated, etc.) during the reporting period;
 11. Report if there were any significant changes in the operation of the Site production well in the previous reporting period or if there are any significant known changes planned for the coming reporting period;
 12. Report information from the City of Norfolk regarding any changes planned for the operation of the City's Water Supply system in the upcoming year and/or if any changes were implemented in the previous year. This shall include any changes in the pumping scheme, discharge to an NPDES outfall, or the water treatment system.
 13. An update on ICs, including verification that ICs were put in place and the results of monitoring the effectiveness of ICs. Provide a certification that the ICs are effective in protecting against unacceptable exposures;
 14. Summarize all changes made in the corrective measures implementation during the reporting period. Include any procedures implemented because the corrective measures were not performing to design specifications, and/or did not achieve the remediation goals;
 15. Identify the monitoring wells sampled during the monitoring period and describe the sample collection, handling, and analyses performed. Describe any exceptions or deviations from the SAP/QAPP;
 16. An estimate of the percentage of the CMI program completed;
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17. Summarize all contacts with representatives of the local community, public interest groups, Federal or State government during the reporting period;
 18. Summarize all findings in the reporting period (including results of any inspections or pilot studies);
 19. Summarize all contacts made regarding access to property;
 20. Summarize all problems or potential problems encountered during the reporting period;
 21. Summarize any repairs or replacements made during the reporting period, i.e., monitoring wells and SVE system and associated equipment and installed components;
 22. Report actions being taken and/or planned to rectify problems;
 23. Report changes in relevant personnel during the reporting period;
 24. Provide projected work for the next reporting period;
 25. Report the results of any sampling tests and/or other data generated during the reporting period, as well as copies of the raw data, field logs, etc., which were used to compile those results;
 26. Describe any solid wastes/hazardous wastes that were generated by the operation of the corrective measures and how they were managed;
 27. Provide copies of daily reports; inspection reports, laboratory/monitoring data, manifests, etc.;
 28. Provide an updated cost estimate for implementing the entire corrective measures program (including all O&M costs);
 29. Discussion on the progress toward attaining site-specific media remediation goals, an estimate of the time remaining to attain those goals, and identification of limiting factors in attaining those goals;
 30. Provide a schedule for the coming reporting period; and,
 31. Provide a description of any adverse exposure (human or ecological) to contamination and resulting actions taken during the reporting period.
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TASK 7: 5-Year Corrective Measures Performance Evaluation Report – Within the timeframe specified in the AOC, the Respondent shall submit to EPA for review and approval a 5-Year Corrective Measures Performance Evaluation Report evaluating the effectiveness and performance of the corrective measures, including the institutional controls, in preventing human or environmental exposure. This evaluation shall be consistent with the *CERCLA Comprehensive Five-Year Review Guidance, OSWER9355.7-03B-P*, and any subsequent revisions or additions, and shall include the following:

1. Discussion on the effectiveness and performance of the remedy in protecting human health and the environment as planned in the FRD-RTC, using sampling and analysis results;
2. Discussion on the effectiveness of engineering controls and institutional controls in protecting human health and the environment as planned in the FRD-RTC;
3. Discussion on the progress toward attaining site-specific media remediation goals, an estimate of the time remaining to attain those goals, and identification of limiting factors in attaining those goals;
4. Any changed circumstances that render the remedy, including engineered and institutional controls, ineffective;
5. Possible modifications to the remedy to provide necessary protection;
6. If the SVE remedy proves ineffective in removing site-related contamination in soil, soil vapor, and indoor air, additional or modified action shall be proposed. This action may include excavation of soil hot spots, or other hot spot treatment. For example, it is possible that SVE will not address Stoddard solvent contamination. If this proves to be the case, excavation in the area of the previous location of USTs (primary location of Stoddard solvent release) may be required. Adjustment to optimize the system for source removal could include additional vapor mitigation systems, targeted bioventing, multiphase extraction for light non-aqueous phase liquid (i.e., Stoddard solvent), relocation or installation of new SVE wells, in-situ chemical oxidation, hot spot excavation, or thermally enhanced SVE;
7. If the SVE system performance monitoring program is not sufficient to serve its intended purpose, a modification to the program shall be proposed; and,
8. If a groundwater monitoring program is not sufficient to serve its intended purpose, a modification to the program shall be proposed.

EPA will review this submittal in accordance with Section X of the AOC [EPA Approval of Deliverables]. Based upon EPA's review of the 5-Year Corrective Measures Performance Evaluation Report, EPA may require the Respondent to conduct additional investigation, study, and/or work in order to modify the existing remedy or to select a new remedy or remedies. If action is needed to protect human health or the environment from harm or potential harm from contamination or to prevent or minimize the further spread of contamination while long-term remedies are pursued, EPA may require Respondent to conduct additional work in accordance with Section XXVI of the AOC [Additional Work] and this SOW.

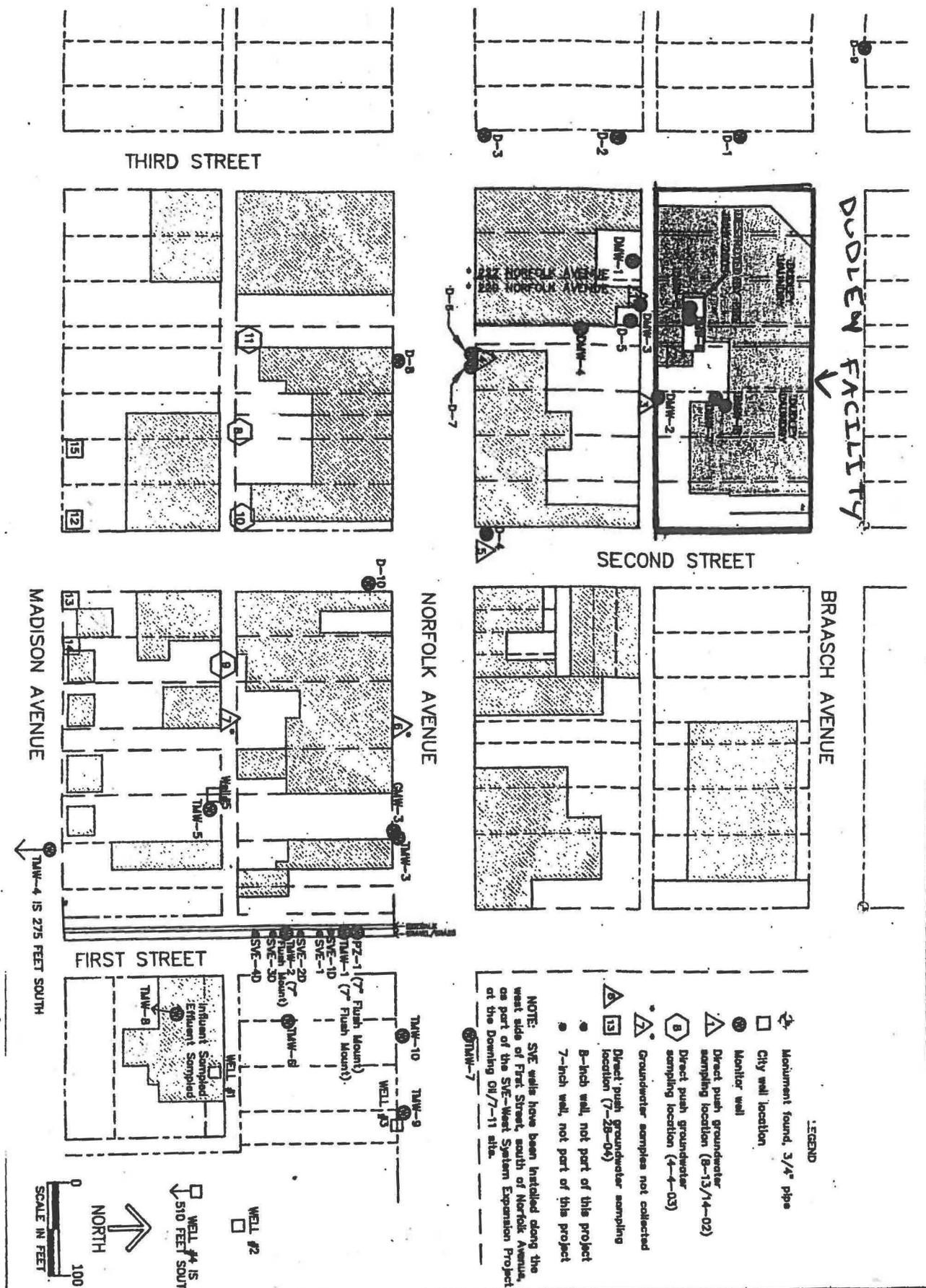
TASK 8: Corrective Measures Completion Report – Within the timeframes specified in the AOC and upon satisfaction of the EPA-approved completion criteria, the Respondent may submit to EPA a Corrective Measures Completion Report (CMC Report). The purpose of the CMC Report is to fully document how the corrective measure completion criteria have been satisfied and to justify why the corrective measure and/or monitoring may cease. The Respondent shall prepare a CMC Report when sufficient information is obtained demonstrating that the completion criteria have been achieved. EPA will review this submittal in accordance with Section X of the AOC [EPA Approval of Deliverables]. The CMC Report shall fully document how the corrective measure objectives and corrective measures completion criteria have been satisfied, and shall justify why the corrective measure and/or monitoring may cease. The CMC Report shall, at a minimum, include the following elements:

1. A synopsis of the corrective measures implemented;
2. Corrective Measures Completion Criteria - Describe the process and criteria used to determine when the corrective measures operation, maintenance, and monitoring may cease;
3. A demonstration that the corrective measure objectives, remediation goals, and corrective measure completion criteria have been met. A discussion on how engineering controls/institutional controls will continue to protect human health and the environment, and, as such, not require the continuation of the AOC. The CMC Report shall include results of tests and/or monitoring that document how operation of the corrective measures compares to, and satisfies, the corrective measure objectives and completion criteria;
4. A summary of work accomplishments (e.g. performance levels achieved, total hours of operation, total volume treated and/or excavated volumes of media, nature and volume of wastes generated, etc.);
5. A summary of significant activities that occurred during operation of the corrective measures, including a discussion of any problems encountered and how such problems were addressed;

6. A summary of total costs for the corrective measures; and
7. A discussion of the potential impacts that cessation of maintenance and monitoring could have on the future effectiveness of the corrective measure and/or potential receptors.

MAJOR DELIVERABLES: In accordance with paragraph 87 of the AOC, the following are considered documents which EPA and Respondent agree will need certification by a responsible corporate officer of Respondent:

1. Soil Vapor Extraction System – Construction Completion Report (Task 1)
2. Enhanced Groundwater Monitoring Plan/Dudley well (Task 4);
3. Enhanced Groundwater Monitoring Plan/City well (Task 5);
4. Annual Progress Reports (Task 6);
5. 5-Year Corrective Measures Performance Evaluation Report (Task 7); and
6. Corrective Measures Completion Report (Task 8).



DUDLEY FACILITY

BRASCH AVENUE

SECOND STREET

NORFOLK AVENUE

THIRD STREET

MADISON AVENUE

FIRST STREET

LEGEND

- ⊕ Monument found, 3/4" pipe
- City well location
- ⊙ Monitor well
- ⊙ Direct push groundwater sampling location (B-13/14-02)
- ⊙ Direct push groundwater sampling location (4-4-03)
- ⊙ Groundwater samples not collected
- ⊙ Direct push groundwater sampling location (7-29-04)
- ⊙ B-hatch well, not part of this project
- ⊙ 7-inch well, not part of this project

NOTE: SVE wells have been hatched along the west side of First Street, south of Norfolk Avenue, on part of the SVE-West System Expansion Project at the Doering Oil/7-11 site.

WELL #4 IS 510 FEET SOUTH

WELL #2

SCALE IN FEET

0 100

NORTH

FILE NAME	2605986
DRAWN	EAD
CHECKED	FJ
DATE	JANUARY 2
ISSUE #	1
PRINT #	1

AREA LOCATION MAP
WITH GROUNDWATER SAMPLING LOCATIONS

DUDLEY LAUNDRY COMPANY

GSI
Geotechnical Engineering & Environmental

EXHIBIT 3

REVISION

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 7**

**FINAL REMEDY DECISION AND RESPONSE TO COMMENTS
JULY 2011**

FINAL REMEDY: Soil vapor extraction, groundwater pumping, monitoring program, and institutional controls to address chlorinated solvents and petroleum products in soil, groundwater, and indoor air

**DUDLEY LAUNDRY FACILITY
126 North Third Street
Norfolk, Nebraska
NED035093178**

I. INTRODUCTION

This Final Remedy Decision and Response to Comments (FRD-RTC) is issued by the U.S. Environmental Protection Agency (EPA) Region 7. The EPA has written this FRD-RTC as part of its responsibilities under the Resource Conservation and Recovery Act (RCRA). This FRD-RTC describes the final remedy selected to require soil vapor extraction, groundwater pumping, monitoring, and institutional controls to address contaminated soil, groundwater, and indoor air at the Dudley Laundry Facility (now operating as Appera) located at 126 North Third Street in Norfolk, Nebraska (see attached Figure 1).

The proposed remedy decision was described in the Statement of Basis that was placed on public notice (i.e., made available and public comment requested) from May 9 to June 8, 2011. EPA held a public availability session on May 26, 2011. EPA received the following comment on the proposed remedy. EPA's response follows the comment. No revision was made to the remedy based on the comment received.

COMMENT: The Statement of Basis obligates that Dudley develop and implement a groundwater monitoring plan with sufficient frequency to meet the compliance and remediation goals required by the USEPA. We recognize that the current remedy is dependent on continuation of operation of the City's pumping system for groundwater control. Therefore, we expect that there will be a continuation of a groundwater sampling program similar to what has been conducted over the last few years. At a minimum, we expect that the East Water Plant influent and effluent be sampled on a monthly basis during periods of operations, and that Well 1 be sampled on a quarterly basis.

RESPONSE: EPA appreciates the comment regarding sampling locations and frequency. The remedy requires development of a sampling plan for a monitoring program.

EXHIBIT 3

During development of the sampling plan, the sample locations and frequencies will be proposed by Dudley and approved by EPA. EPA will consider the above comment in selecting the sample locations for the monitoring program.

Based on the proposed remedy, with consideration of the comment received, the EPA has selected a final remedy for the Dudley Laundry Facility (now operating as Appera) located at 126 North Third Street in Norfolk, Nebraska. EPA anticipates that the final remedy will be implemented under the authority of an order of consent under Section 7003 of RCRA.

II. SELECTED REMEDY

EPA selects as the final remedy the following combination of alternatives, described in further detail below: SVE system (designed to optimize performance based on site geology and contaminants), continued groundwater pumping of Dudley production well and response to significant change in the pumping or treatment at the City water supply field, a monitoring/sampling program to measure the remedy's performance, institutional controls to address potentially unacceptable exposures or a change in the remedy basis, and contingencies in case the remedy is not effective or the remedy basis/current site condition changes (e.g., change in current production well or City well pumping scheme). The final remedy shall be designed to meet the remediation goals provided in this section.

Soil Vapor Extraction (Source Removal): A SVE system will be designed and installed at the Facility in order to remove VOC contamination in soil under the existing building and other infrastructure. It is anticipated that the SVE system, by reducing soil contamination under the building, will reduce indoor air concentrations to acceptable concentrations. This reduction will be evaluated after a year's operation of the SVE system. If EPA determines that indoor air concentrations have not been reduced to acceptable concentrations within a year, additional mitigation efforts specific to address vapor intrusion will be required by EPA. The effectiveness of the SVE system, with respect to reducing soil contamination, shall be evaluated by Dudley on an annual basis and the system design adjusted, if necessary, as determined by EPA. Adjustment to optimize the system for source removal could include targeted bioventing, multiphase extraction for light non-aqueous phase liquid (i.e., Stoddard solvent), in-situ chemical oxidation, hot spot excavation, or thermally enhanced SVE. The system design phase will include development of a plan to define performance criteria and monitor the performance of the system for soil, soil vapor, and mass removed, to meet remediation goals. The SVE system will be designed to manage wastes in accordance with all federal, state, and local regulations and in accordance with the requirements of the transportation and receipt facility.

Groundwater Pumping: The Facility production well shall continue to operate at or near its current capacity. The remedy is based on continued similar operation of the City's water supply and aeration treatment system. Because the operation of the City water supply system (pumping and treatment) is not under control of the Dudley facility, continued operation cannot be considered within their control. A significant change in the operation of the City's system will require response as described under "Contingencies" below. If the remedy is determined to not be meeting the groundwater remediation goals, additional corrective action may be necessary as determined by the EPA.

Monitoring Program and Reporting: A groundwater and indoor air sampling plan will be developed and implemented to monitor concentrations of site-related chemicals in these two media for compliance with remediation goals. Monitoring will be conducted at locations and at a rate sufficient to determine compliance with remediation goals and as required by the EPA.

The sampling plans for groundwater, indoor air, soil vapor and soil will be reviewed and approved by EPA. An annual review of the remedy using monitoring results will be conducted by Dudley, with a report to the EPA on the effectiveness of the remedy. This report will include recommendations for any changes to optimize the remedy, including changes in the SVE system, additional vapor intrusion mitigation, groundwater pumping, monitoring program, institutional controls, and/or contingencies.

Institutional Controls: The Facility will be required to develop and adhere to institutional controls (written, legal documents) that will limit uses (other than the current use of the Facility as a commercial laundry) of the Facility from those that could cause exposure to contamination in soil, groundwater, indoor air, and any environmental media.

Institutional controls will be developed, filed (where appropriate), and implemented for the following purposes: to support the remedy and contingencies; support attainment of remediation goals; prohibit Facility use as residential; limit unacceptable exposure to persons conducting excavation in areas of soil contamination; provide access to EPA or State of Nebraska for verifying land use; provide access to EPA or State of Nebraska for sampling and the maintenance of groundwater monitoring wells; providing notice to prospective purchasers and occupants that there are contaminants in the soil, groundwater, and indoor air; and limit groundwater use to prohibit unacceptable exposures both at and downgradient of the Facility. The Facility will propose to EPA for review and approval, institutional controls deemed necessary to address current and future environmental concerns at the Facility. It is anticipated that institutional controls will be implemented under the Nebraska Uniform Environmental Covenants Act. The institutional control plan (ICP) shall be reviewed and approved by the EPA.

Contingencies: If the SVE remedy proves ineffective in removing site-related contamination, excavation of soil hot spots, or other hot spot treatment, will be reevaluated and may be required. For example, it is possible that SVE will not address Stoddard solvent contamination. If this proves to be the case, excavation in the area of the previous location of USTs (primary location of Stoddard solvent release) may be required. If the use of the Facility production well changes significantly or if the City significantly alters its groundwater pumping or treatment, an enhanced monitoring program will be implemented. The enhanced monitoring program will be submitted to EPA for review and approval. If results of this enhanced, or any other, monitoring program indicates plume expansion or water supply concentrations approaching drinking water standards, additional corrective measures may be required, to be determined by EPA. If the building is removed in the future, soil contamination will be fully investigated and remediated. If the basis of the remedy changes, the remedy will be reevaluated for new or additional corrective measures to be taken.

REMEDICATION GOALS BY MEDIA: The following parameters will be monitored for compliance with remediation goals, as described in the table below: PCE, trichloroethene (TCE), cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethane, 1,1,2,2-tetrachloroethane, vinyl chloride, acetone, benzene, toluene, ethylbenzene, xylenes, naphthalene, and Stoddard solvent. Remediation goals for Stoddard solvent shall be as calculated by the EPA based on the most recent available toxicity data. Any site-specific adjustment to the goals may be done only with EPA review and approval.

The goals associated with restricted use require that institutional controls are in place to limit the Facility use from residential; prohibit domestic or potable groundwater use at the Facility; limit water supply well installation between Dudley and the City wells; and to continue to require that the City water supply be monitored, and remediated, if necessary, so that drinking water supplied from the system does not exceed drinking water standards.

MEDIA	Restricted Use	Unrestricted Use
SOIL	Remedial goals will be based on an industrial outdoor worker scenario and set at a cancer risk of one in 100,000 or hazard index of 1, whichever is lower ^{1,4} .	Remedial goals will be based on the lower remedial goal for residential soil or protection of groundwater based on MCLs, or tapwater if MCL based not available. Risk-based remedial goals will be set at a cancer risk of one in one million or hazard index of 1, whichever is lower ^{3,4} .
INDOOR AIR	Industrial air remedial goals will be set at a cancer risk of one in 100,000 or hazard index of 1, whichever is lower ^{2,4} .	Residential air remedial goals will be set at a cancer risk of one in one million or hazard index of 1, whichever is lower ^{3,4} .
SUBSLAB VAPOR	Subslab vapor remedial goals will be based on the industrial air remedial goal, as supported by risk assessment, and adjusted by an attenuation factor of 0.1.	Subslab vapor remedial goals will be based on a residential air remedial goal, as supported by risk assessment, and adjusted by an attenuation factor of 0.1.
GROUNDWATER Production Well	Lower of either the Maximum Contaminant Level under the Safe Drinking Water Act or concentrations for industrial worker scenario for dermal and inhalation exposure (set at the lower of either a cancer risk of one in 100,000 or hazard index of 1). ^{5,4}	Dudley may propose goals for unrestricted use for EPA review and approval. Must be protective for all exposure scenarios and be attained throughout the plume.
GROUNDWATER City Water System	Maintain control of the groundwater contamination plume so that concentrations in the City water supply remain below drinking water standards.	

¹ Soil remedial goals for the industrial outdoor worker scenario will be derived consistent with the most current EPA risk assessment guidance and toxicity data and account for a reasonable maximum exposure (RME).

² Indoor air remedial goals for the indoor industrial worker will be derived consistent with the most current EPA risk assessment guidance and toxicity data and account for a RME.

³ Soil and indoor air remedial goals for unrestricted land-use (i.e., residential) will be derived consistent with the most current EPA risk assessment guidance and toxicity data and account for a RME.

⁴ For chemicals having the same target organ/critical effect, non-cancer target hazard index will be adjusted (i.e., divided) according to the number of chemicals with the same target organ.

⁵ Dermal and inhalation remedial goals for the industrial worker scenario will be derived consistent with the most current EPA risk assessment guidance and toxicity data and account for a reasonable maximum exposure (RME).

III. EVALUATION OF THE REMEDY

In the Statement of Basis, EPA evaluated the following remedial alternatives: No Action; Monitored Natural Attenuation; Soil Vapor Extraction; Excavation; Building Demolition and Excavation; and Institutional Controls. Each individual remedial alternative was first evaluated to determine if it met the primary general standards for a corrective measure listed below:

General Standards for Corrective Measures (required elements)

- Overall Protection of Human Health and the Environment- the ability of the alternative to protect human health and the environment.
- Attain Media Clean-up Standards- the ability of alternative to achieve the media clean-up standards.
- Control of the Sources of Releases- the ability of the alternative to reduce or eliminate to the maximum practical extent possible further releases.
- Compliance with Standards for Management of Waste- the ability of the alternative to assure that management of wastes during corrective measures is conducted in a protective manner.

These are threshold criteria that a remedy must meet. If the remedy cannot meet all of the general standards it cannot be considered a viable remedy and is eliminated from further consideration. The individual remedial alternatives evaluated by the EPA in the Statement of Basis did not satisfy the four required general standards on an individual basis. EPA determined that a combination of these alternatives was required to fully satisfy the general standards.

EPA proposed, and is now finalizing, the following combination of alternatives as a final remedy for the Dudley facility: SVE system (designed to optimize performance based on site geology and contaminants), continued groundwater pumping of Dudley production well and response to significant change in the pumping or treatment at the City water supply field, institutional controls to address potentially unacceptable exposures or a change in the remedy basis, a monitoring/sampling program to measure the remedy's performance, and contingencies in case the remedy is not effective or the current site condition changes (e.g., change in current production well or City well pumping scheme).

EPA determined that the above combination of alternatives as the final remedy:

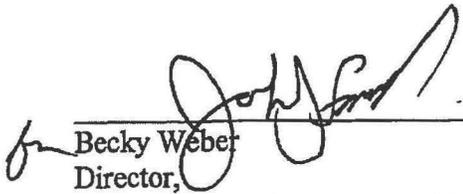
- (1) Protects human health and the environment under current conditions by requiring continued groundwater pumping and addressing indoor air exposures with the SVE system, and protects against future exposures using institutional controls to put restrictions on land use that are consistent with the risk scenarios evaluated by EPA;
- (2) Controls the sources of release so as to reduce or eliminate, to the maximum extent practicable, further releases that may pose a threat to human health and the environment by remediating soil contamination using SVE;
- (3) Attains the media cleanup standards by promoting remediation of soil contamination with SVE and groundwater contamination with groundwater pumping; and
- (4) Complies with applicable standards for management of wastes by requiring such compliance in the remedy design.

IV. PUBLIC PARTICIPATION ACTIVITIES

A public comment period was provided from May 9, 2011, to June 8, 2011, with notification of the availability of the statement of basis for review being provided via newspaper publication, fact sheet mailings, and radio announcements. A public availability session was held on May 26, 2011, to allow the public an opportunity to discuss the proposed remedy with EPA-RCRA Program representatives. One comment was received that did not require modification of the remedy.

V. DECLARATIONS

Based on the administrative record compiled for this corrective action, I have determined that the selected final remedy to be ordered at this site is appropriate and will be protective of human health and the environment.



Becky Weber
Director,
Air and Waste Management Division

7/29/21

Date

ATTACHMENT 4 TO THE ADMINISTRATIVE ORDER ON CONSENT

TABLE 1

REMEDIATION GOALS FOR RESTRICTED USE - Dudley Laundry Company, Norfolk, Nebraska

NED035093178

February 2012

PARAMETER	SOIL	INDOOR AIR	SUBSLAB AIR	GROUNDWATER	GROUNDWATER
	Industrial Outdoor Worker mg/kg	Industrial Indoor Worker µg/m ³	Industrial Indoor Worker µg/m ³	Production Well Industrial Worker µg/L	City Water Supply Source: MCL µg/L
Tetrachloroethene	459	175	1,750	660	5
Trichloroethene	22	8.8	88	88	5
cis-1,2-Dichloroethene	2,270	260	2600	10,000	70
trans-1,2-Dichloroethene	763	260	2600	2,600	100
Vinyl Chloride	18.5	28	280	28	2
1,1,2,2-Tetrachloroethane	31	2.1	21	19	0.66 **
1,1-Dichloroethane	185	77	770	760	24 **
Acetone	114,000 **	140,000	1,400,000	11,500	12,000 **
Benzene	60	16	160	88	5
Toluene	50,200	22,000	220,000	11,000	1,000
Ethylbenzene	298	49	490	160	15
Xylenes	3,010	440	4,400	10,000 **	10,000
Naphthalene	200	3.6	36	48	1.4 **
Stoddard solvent *	70.4	438	4380	209	209

µg/L = micrograms per liter

µg/m³ = micrograms per cubic meter

mg/kg = milligrams per kilogram

Remediation goals for "Restricted Use" require that use of Site property for residential purposes and potable use of water at Site are prohibited. The Memorandum to the File by EPA, dated March 1, 2012, provides the methods used to establish the numerical values provided in this table.

MCL = Maximum contaminant levels under the Safe Drinking Water Act

* - Source April 27, 2011 letter from EPA approving the CMS with comment.

** - Refer to the Memorandum to the File, EPA dated March 1, 2012, for more information on this value.

ATTACHMENT 5

Space Above for Recorder's Use Only

Return to: Michael S. Mostek, Koley Jessen P.C., L.L.O., 1125 South 103 St., Suite 800, Omaha, Nebraska
68124

ENVIRONMENTAL COVENANT

This Environmental Covenant is entered into by and between Dudley Laundry Company, Inc., a Nebraska corporation, as Grantor, and Dudley Laundry Company, Inc., a Nebraska corporation, as Holder/Grantee, pursuant to the Nebraska Uniform Environmental Covenants Act, Neb. Rev. Stat. §§ 76-2601 to 76-2613.

RECITALS:

- A. Grantor is the owner of certain real property located at 126 N. 3rd Street, Norfolk, Madison County, Nebraska, which is legally described on Exhibit A attached hereto (the "Property").
- B. The Property is owned and operated by Grantor and was previously used in part as a dry cleaning business until 2003.
- C. The Property is identified as the site of the release, or the threat of a release, of hazardous wastes and/or solid wastes onto the ground and into the groundwater underlying the Property, and is referred to as the Dudley Laundry Facility, EPA ID No. NED035093178.
- D. Pursuant to a _____, 2012 Administrative Order on Consent issued by the U.S. Environmental Protection Agency ("EPA") under Section 7003 of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6973, Grantor is required to perform an environmental response project at the Property. This environmental response project includes contaminant source removal using a soil vapor extraction system, groundwater control using the continued operation of the Site production well and continued operation by the City of Norfolk, Nebraska, of its well system, and institutional controls to prevent exposure risks. The site contaminants include tetrachloroethene ethylbenzene, trichloroethene, vinyl chloride, Stoddard solvents, naphthalene, and 1,2-

dichloroethene (1,2-DCE, *cis* and *trans*) and 1,1,2,2-tetrachloroethane; hereinafter known collectively as "Site Contaminants".

E. As provided for in Neb. Rev. Stat. § 76-2602, the EPA is an Agency under this Environmental Covenant.

F. The administrative record for the Dudley Laundry Facility is available to the public and is located at the Norfolk Public Library, Norfolk, Nebraska and at EPA's offices located at 901 North 5th Street, Kansas City, Kansas 66101.

NOW, THEREFORE,

Grantor hereby declares that the Property will hereinafter be bound by, held, sold and conveyed subject to the terms, conditions, obligations, and restrictions set forth herein, which will run with the land, in perpetuity, unless amended or terminated pursuant to Paragraph 10 below.

1. Representations and Warranties. Grantor warrants to the other signatories to this Covenant that:

- a. It is the sole fee title owner of the Property;
- b. It holds sufficient fee title to the Property to grant the rights and interests described in this Environmental Covenant free of any conflicting legal and equitable claims; and
- c. It has identified all other persons holding legal or equitable interests, including but not limited to contract buyers, mortgage holders, other consensual lien holders, and lessees and secured their consent [by signature on this Environmental Covenant OR by a separate subordination and consent agreement attached as Exhibit ___ OR recorded at [doc/book/page]].

2. Purpose. The purpose of this Environmental Covenant is to ensure protection of human health and the environment by minimizing the potential for exposure to the contamination that remains on the Property and to ensure that the Property is not developed, used, maintained or operated in a manner which may result in unacceptable exposures to residual contamination.

3. Running with the Land. This Environmental Covenant is perpetual and conveys to the Holder/Grantee real property rights that run with the land, and gives to the Agency the right to enforce the activity and use limitations set forth in Paragraph 4 below. The terms, conditions, obligations, and limitations in this Environmental Covenant are binding on Grantor, its successors, assigns, and transferees, and all persons, corporations or other entities obtaining or succeeding to any right, title or interest in the Property. Acceptance of any conveyance, transfer, lease or sublease of the Property, or any part thereof, will bind each transferee, and its successors, transferees, heirs, and assigns to the terms, conditions, obligations, and limitations set forth herein during their respective period of ownership or occupancy, as applicable. Notice of any transfer of any interest in the Property must be promptly provided to EPA by the transferor. Grantor is bound by the terms, conditions, obligations and limitations in this Environmental Covenant only during its period of ownership or occupancy after the effective date. This Environmental

Covenant in no way amends, modifies, limits, or releases Grantor from its duties and obligations, if any, under the above-referenced Administrative Order on Consent.

4. Activity and Use Limitations. The Property is subject to the following activity and use limitations:
 - a. The Property shall not be used for residential, child care or school use.
 - b. Remedial systems for soil vapor extraction and to control and/or abate vapor intrusion of Site Contaminants into any existing enclosed buildings at the Property must be operated and maintained in accordance with standards for protectiveness of human health and the environment.
 - c. Any new construction of enclosed buildings at the Property must prevent, or include remedial systems to control and/or abate, vapor intrusion of Site Contaminants into any such new construction at the Property, and must be operated and maintained in accordance with standards for protectiveness of human health and the environment.
 - d. Extraction and use of the ground water underlying the Property for domestic or potable purposes, except for investigation or remediation approved by EPA, or for the non-potable use in the laundry business at the Site, is prohibited.
 - e. Any removal or demolition of buildings or structures on the property shall include the removal or remediation of contaminated soil that is exposed or uncovered by such activity.
 - f. Except where such excavation is necessary to prevent or address a substantial previously unknown threat to human health or the environment, including without limitation a natural gas pipeline leak, any digging, drilling, excavating, constructing, earth moving, or other land disturbing activities that occur in the area depicted in Exhibit B or below an existing building or paved surface, including any repair, renovation or demolition of existing structures on the Property, are prohibited without the use of appropriate protective equipment and without thirty days' prior written notice to EPA.

5. Reserved Rights of Grantor. Grantor hereby reserves unto itself and its successors all rights and privileges in and to the use of the Property which are not incompatible with the activity and limitations set forth above.

6. Enforcement. This Environmental Covenant may be enforced in a civil action for injunctive or other equitable relief by Holder/Grantee and by the Agency in accordance with Neb. Rev. Stat. § 76-2611. Failure to exercise such rights of enforcement will in no event bar subsequent enforcement and shall not be deemed a waiver of any right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall limit the Agency from exercising any authority under applicable law. The prevailing party in any action to enforce this Environmental Covenant is entitled to recover all costs of such action, including reasonable attorney fees and damages pursuant to Neb. Rev. Stat. § 76-2611(d).

7. Rights of Access. Grantor and any then-current owner hereby grants to the Agency, their agents, contractors, and employees, the right of access to the Property to monitor compliance with the terms, conditions, obligations, and limitations of this Environmental

Covenant. Nothing in this Environmental Covenant shall limit or otherwise affect the Agency's right of entry and access or the Agency's authority to take response actions under applicable law.

8. Notice Upon Conveyance. Each instrument hereafter conveying any interest in the Property or any portion of the Property, including but not limited to, deeds, leases, and mortgages, shall contain a notice of the activity and use limitations set forth in this Environmental Covenant, and provide the recording information for this Environmental Covenant. The notice shall be in substantially the form set forth below. Within thirty (30) days of the date any such instrument of conveyance is executed, the Grantor or then-owner must provide the Agency with a certified copy of said instrument and its recording reference in the Madison County Register of Deeds.

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL COVENANT DATED _____, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS OF MADISON COUNTY, NEBRASKA ON _____, IN [DOCUMENT _____, BOOK _____, PAGE ____]. THE ENVIRONMENTAL COVENANT CONTAINS THE FOLLOWING ACTIVITY AND USE LIMITATIONS:

- a. The Property shall not be used for residential, recreational, child care or school use.
- b. Existing remedial systems for soil vapor extraction and to control and/or abate vapor intrusion of Site Contaminants into any existing enclosed buildings at the Property must be operated and maintained in accordance with standards for protectiveness of human health and the environment.
- c. Any new construction of enclosed buildings at the Property must prevent, or include remedial systems to control and/or abate, vapor intrusion of Site Contaminants into any such new construction at the Property, and must be operated and maintained in accordance with standards for protectiveness of human health and the environment.
- d. Extraction and use of the ground water underlying the underlying the Property for domestic or potable purposes, except for investigation or remediation approved by EPA, or for the non-potable use in the laundry business at the Site, is prohibited.
- e. Any removal or demolition of buildings or structures on the property shall include the removal or remediation of contaminated soil that is exposed or uncovered by such activity.
- f. Except where such excavation is necessary to prevent or address a substantial previously unknown threat to human health or the environment, including without limitation a natural gas pipeline leak, any digging, drilling, excavating, constructing, earth moving, or other land disturbing activities that occur in the area depicted in Exhibit B or below an existing building or paved surface, including any repair, renovation or demolition of existing structures on the Property, are prohibited without the use of appropriate protective equipment and without thirty days' prior written notice to EPA.

9. Waiver of Certain Defenses. The parties bound by this Environmental Covenant hereby waive any defense to the enforcement of this Environmental Covenant based on laches, estoppel, statute of limitations, or prescription.

10. Amendment and Termination. Amendment or termination of this Environmental Covenant shall comply with Neb. Rev. Stat. § 76-2610. The terms of this Environmental Covenant may be modified or terminated by written consent of EPA, the then current fee simple title owner, and all original signatories unless exempted by Neb. Rev. Stat. § 76-2610. The amendment or termination is not effective until the document evidencing consent of all necessary persons is properly recorded. If not by consent, any amendment or termination of this Environmental Covenant shall be as provided by Neb. Rev. Stat. § 76-2609 and such additional terms as specified in this Environmental Covenant. As provided in Neb. Rev. Stat. § 76-2610(c), except for an assignment undertaken pursuant to a governmental reorganization, assignment of an environmental covenant to a new holder is an amendment.

11. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

12. Captions. The captions in this Environmental Covenant are for convenience and reference only and are not a part of this instrument and shall have no effect upon construction or interpretation.

13. Governing Law. This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the State of Nebraska.

14. Recordation. Within thirty (30) days after the date of the Agency's approval of this Environmental Covenant, the Grantor shall record the Environmental Covenant, in the same manner as a deed to the Property, with the Madison County Register of Deeds.

15. Effective Date. The effective date of this Environmental Covenant is the date upon which the fully executed Environmental Covenant has been recorded as a deed record for the Property with the Madison County Register of Deeds.

16. Distribution of Environmental Covenant. Within sixty (60) days of the effective date, the Grantor shall distribute a file- and date-stamped copy of the recorded Environmental Covenant to each person identified in Neb. Rev. Stat. §§ 76-2607(a) and 76-2608(c), including but not limited to the City of Norfolk, Nebraska.

17. Notice. Unless otherwise notified in writing by the Agency, any document or communication required by this Environmental Covenant shall be submitted to:

If to the Agency:

Director
Air and Waste Management Division
U.S. Environmental Protection Agency
901 North 5th Street
Kansas City, Kansas 66101

If to Grantor and Holder/Grantee:

Dudley Laundry Company, Inc.
126 N. 3rd Street
Norfolk, Nebraska 68701

[REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK]
[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have executed this instrument the day and year first above written.

FOR GRANTOR:

DUDLEY LAUNDRY COMPANY, INC.

By: _____

Title: _____

STATE OF _____)

COUNTY OF _____)

The foregoing instrument was acknowledged before me this ___ day of _____, 2012, by _____, the _____, by _____ of Dudley Laundry Company, Inc, a Nebraska corporation, having acknowledged that he/she held the position or title set forth above and that he/she signed the instrument on behalf of the corporation by proper authority and that the instrument was the act of the corporation for the purpose therein stated.

Notary Public

IN WITNESS WHEREOF, the parties hereto have executed this instrument the day and year first above written.

FOR HOLDER/GRANTEE:

DUDLEY LAUNDRY COMPANY, INC.

By: _____

Title: _____

STATE OF _____)

)

COUNTY OF _____)

The foregoing instrument was acknowledged before me this ___ day of _____, 2012, by _____, the _____, by _____ of Dudley Laundry Company, Inc, a Nebraska corporation, having acknowledged that he/she held the position or title set forth above and that he/she signed the instrument on behalf of the corporation by proper authority and that the instrument was the act of the corporation for the purpose therein stated.

Notary Public

IN WITNESS WHEREOF, the parties hereto have executed this instrument the day and year first above written.

FOR AGENCY:

**UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY**

By: _____
Becky Weber
Director
Air and Waste Management Division

STATE OF KANSAS)
)
COUNTY OF WYANDOTTE)

The foregoing instrument was acknowledged before me this ____ day of _____, 2012, by Rebecca Weber, the Director of the United States Environmental Protection Agency, Region 7, Air and Waste Management Division, having acknowledged that she holds the position set forth above and that she signed the instrument on behalf of the United States Environmental Protection Agency by proper authority and that the instrument was the act of such entity for the purpose therein stated.

Notary Public

EXHIBIT A

CERTIFICATE OF SERVICE

I certify that a true and correct copy of the foregoing Order was sent this day in the following manner to the addressees:

Copy hand delivered to
Attorney for Complainant:

Robert W. Richards
Assistant Regional Counsel
Region 7
United States Environmental Protection Agency
11201 Renner Blvd.
Lenexa, Kansas 66219

Copy by First Class Mail to:

Michael Mostek , Attorney
Koley Jessen P.C., L.L.O.
1125 S. 103rd St., Suite 800
Omaha, Nebraska 68124

Dated: 11/27/12


Kathy Robinson
Hearing Clerk, Region 7