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IN THE COURT OF COMMON PLEAS
STARK COUNTY, OHIO

State of Ohio, *ex rel.* Jim Petro,)
Attorney General of Ohio,)
)
Plaintiff,)
)
vs.)
)
Virginia Gallagher, et al.,)
)
Plaintiff-Intervenors,)
)
vs.)
)
Bison Corporation, et al.,)
)
Defendants.)

Case No. 2003CV01396

Judge Sara Lioi

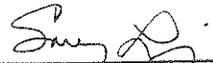
NOTICE AND ORDER

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DIV. OF B. STENOGRAPHY & RECORDS MANAGEMENT

This shall serve as notice that on the 18th day of August, 2004, the Consent Order and Final Judgment Entry, signed by the receiver and counsel for all parties, was approved by the Court and filed with the Stark County Clerk of Courts. Date-stamped copies of the Consent Order and Final Judgment Entry are being served upon the receiver and counsel for all parties on this day. If any party fails to receive a date-stamped copy of the Consent Order and Final

Judgment Entry within three (3) business days, said party shall immediately notify the Court in writing.

IT IS SO ORDERED.



HON. SARA LIOI

c: John F. Cayton
Gregory J. DeGulis
Victor R. Marsh
James R. Kandel

FILED
 AUG 18 2004
 JUDITH A. GALLAGHER
 STARK COUNTY OHIO
 CLERK OF COURTS

**IN THE COURT OF COMMON PLEAS
 STARK COUNTY, OHIO**

STATE OF OHIO, ex rel.	:	CASES NO. 2003CV01396
JIM PETRO	:	
ATTORNEY GENERAL OF OHIO,	:	JUDGE SARA LIOI
	:	
Plaintiff,	:	
	:	
VIRGINIA GALLAGHER, et al.	:	
	:	
Plaintiff-Intervenors,	:	
	:	
v.	:	
	:	
BISON CORPORATION, et al.	:	
	:	
Defendants.	:	

CONSENT ORDER AND FINAL JUDGMENT ENTRY

Plaintiff, State of Ohio, on relation of its Attorney General, Jim Petro, ("Plaintiff"), having filed the Complaint in this action against Defendants to enforce Ohio's hazardous waste and water pollution laws found in Chapters 3734 and 6111 of the Revised Code and rules adopted thereunder; and Plaintiff, Plaintiff-Intervenors, and Defendants, through their court appointed Receiver, James R. Kandel, having consented to the entry of this Consent Order; THEREFORE, without trial or admission of any issue of law or of fact, and upon the consent of the undersigned parties, it is hereby ORDERED, ADJUDGED and DECREED as follows:

I. STATEMENT OF PURPOSE

1. In entering into this Consent Order, the mutual objectives of the State of Ohio, the Plaintiff-Intervenors, and the Defendants include: (1) dissolution of Bison Corporation and Morelli Realty Corporation and implementation of Defendants' Consent Order requirements through the Receiver; (2) partial resolution of Plaintiff-Intervenors' claims; (3) implementation of an Interim Action (IA) which includes the removal of Saturated Soils to immediately address a specific source of ongoing ground water contamination, (4) completion of a Remedial Investigation (RI) [the equivalent of a Remedial Facility Investigation (RFI)] and a Feasibility Study (FS) [the equivalent of a Corrective Measures Study (CMS)] to determine the nature and extent of the contamination at and migrating from the Facility and to evaluate remedial actions for addressing the contamination including treatability studies; (5) selection of a remedy by Ohio EPA that is protective of public health and safety and the environment through the development and issuance of a Preferred Plan and Decision Document, with input from the public; and (6) implementation of Additional Work necessary to accomplish the objectives of the Remedial Design/Remedial Action. The Ohio Environmental Protection Agency (Ohio EPA) has conducted a careful comparison of the RI/FS and the RFI/CMS, and has determined that the two processes are functionally equivalent.

II. DEFINITIONS

2. As used in this Consent Order:
- A. "Ohio EPA and U.S. EPA Guidance Documents" means those documents identified in Appendix A.

- B. "Consent Order" means this Consent Order and Final Judgment Entry and all attachments hereto.
- C. "Contractor" means the individual(s) or company or companies retained by Defendants or by the Receiver on behalf of Defendants to undertake and complete the work required by this Consent Order.
- D. "Decision Document" means the document issued by Ohio EPA, after the public notice and comment period for the Preferred Plan that sets forth the final Remedial Action or Corrective Measure for the Site.
- E. "Defendants" means Bison Corporation and Morelli Realty Corporation
- F. "Director" means Ohio's Director of Environmental Protection.
- G. "Effective Date" means the date the clerk of the Stark County Court of Common Pleas enters this Consent Order.
- H. "Facility" means the property owned or operated by Defendant Morelli Realty Corporation located at 1935 Allen Avenue SE, Canton, Stark County.
- I. "Feasibility Study" and "FS" mean the activities to be undertaken to develop and evaluate potential remedial alternatives for the cleanup of the Site. An "FS" is the functional equivalent of a "Corrective Measures Study" or "CMS," which is part of the investigation and remediation process under the RCRA Corrective Action program provided for under §§ 3004(u), 3004(v), and 3008(h) of the Resource Conservation and Recovery Act of 1976, as amended.

- J. "Interim Actions" and "IA" mean actions initiated in advance of implementation of the final Remedial Action or Corrective Measures for the Site. Interim Actions initiate cleanup at a facility and control or eliminate the release or potential release of hazardous wastes or hazardous waste constituents at or from the Facility.
- K. "IA Work Plan" means the work plan for completion of the Interim Action.
- L. "Ohio EPA" means the Ohio Environmental Protection Agency.
- M. "Plaintiff" or "State" means the Ohio EPA by and through the Attorney General of Ohio.
- N. "Plaintiff-Intervenors" means the those citizens who moved to intervene in the Court of Common Pleas, Stark County, Ohio, Case No. 2003CV1396.
- O. "Preferred Plan" means the document prepared by Ohio EPA that presents to the public Ohio EPA's preferred alternative for the remediation of the site.
- P. "RD/RA" means the Remedial Design and Remedial Action including operation and maintenance of the Site to be performed under this Consent Order.
- Q. "Receiver" means the person, James P. Kandel or his successor appointed by the Court to implement Defendants' obligations required by this Consent Order.
- R. "Remedial Action" means any action, or part there of, selected by the Ohio EPA that abates or reduces the threat posed by a placement or disposal or

threatened disposal of hazardous waste, hazardous substances, hazardous constituents, pollutants, industrial wastes and/or other wastes to prevent present or future harm to the public health or welfare or to the environment and is consistent with applicable local, State and Federal laws and regulations, the NCP (40 CFR Part 300), and this Order.

- S. “Remedial Design” means the detailed engineering plans, specifications and construction drawings which are in compliance with NCP (40 CFR Part 300) and sufficient to implement the selected remedial action.
- T. “Remedial Investigation” and “RI” mean those activities to be undertaken to determine the nature and extent of the contamination at the Site caused by the disposal, discharge, or release of Waste Material, whether such disposal, discharge, or release was alleged in the Complaint. An “RI” is the functional equivalent of a “RCRA Facility Investigation” or “RFI” which means those activities to be undertaken to determine the nature and extent of the contamination at the Site caused by any disposal, discharge, or release of Waste Material.
- U. “Response Costs” means all direct and indirect costs incurred by the State related to the investigation and remediation of the Site including, but not limited to, payroll costs, contractor costs, travel costs, direct costs, overhead costs, administrative costs, legal and enforcement related costs, oversight costs, laboratory costs, the costs of reviewing and developing plans, reports,

and other items pursuant to this Consent Order, verifying the work, or otherwise implementing or enforcing this Consent Order.

- V. “RI Work Plan” means the work plan for completion of the Remedial Investigation.
- W. “RI/FS Statement of Work” or “RI/FS SOW” means the outline of Work for the completion of the RI/FS or RFI/CMS. The RI/FS SOW is attached to this Consent Order and is identified as Appendix B.
- X. “Saturated Soils” mean highly contaminated soils serving as probable source areas for the contaminated ground water plume.
- Y. “Site” means the Facility owned or operated by Defendants located at 1935 Allen Avenue SE, Canton, Stark County, and including any area beyond the Facility where hazardous waste or constituents, industrial wastes, and/or other wastes have migrated or threaten to migrate.
- Z. “Waste Material” means (1) any “hazardous waste” under R.C. 3734.01(J) or Ohio Adm. Code 3745-50-10(A) or 3745-51-03; (2) any “hazardous constituents or constituents” as that term is defined in Ohio Adm. Code 3745-50-10(A) and listed in the appendix to Ohio Adm. Code 3745-51-11; (3) any “solid waste” under R.C. 3734.01(E); (4) any “industrial waste” under R.C. 6111.01(C); or any “other wastes” under R.C. Section 6111.01(D).
- AA. “Work” means all activities Defendants are required to perform under this Consent Order.

III. JURISDICTION AND VENUE

3. This Court has jurisdiction over the subject matter of this action pursuant to R.C. Chapters 3734 and 6111 and the rules adopted thereunder. This Court has jurisdiction over the parties. Venue is proper in this Court. The Complaint states a claim upon which relief can be granted.

IV. PERSONS BOUND

4. The provisions of this Consent Order shall apply to and be binding upon Plaintiff, Plaintiff-Intervenors, Defendants, and Defendants' agents, officers, employees, assigns, and successors in interest. Defendants are ordered and enjoined to provide a copy of this Consent Order to each contractor they employ to perform work itemized herein. No change in corporate ownership or status of Defendants, including, without limitation, any transfer of assets or real or personal property, shall in any way alter Defendants' obligations under this Consent Order.

V. RESPONSIBILITIES OF THE COURT-APPOINTED RECEIVER

5. The Receiver has been appointed by this Court to implement the requirements of Defendants set forth in this Consent Order. Pursuant to this appointment, the Receiver shall implement the payment requirements, Work requirements, and all other requirements of Defendants, or a specific Defendant, set forth in this Consent Order. The Receiver is bound by the terms of this Consent Order only in his capacity as Receiver, and not personally, and only so long as he is acting as Receiver under authority of the Court.

VI. RESERVATION OF RIGHTS

6. Nothing in this Consent Order shall limit the authority of the State of Ohio to:
 - a. Seek relief for claims or conditions not alleged in the Complaint;
 - b. Seek relief for claims or conditions alleged in the Complaint that occur after the entry of this Consent Order;
 - c. Bring any action against the Defendants for implementation of the remedy described in the Decision Document;
 - d. Bring any action against Defendants or against any other person under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended, 42 U.S.C. §9601, et seq. and/or R.C. 3734.20 through 3734.27 to: (1) recover natural resource damages, and/or (2) order the performance of, and/or recover costs, for any removal, remedial or corrective activities not conducted pursuant to the terms of this Consent Order;
 - e. Bring an action against the Defendants for the recovery of Response Costs incurred;
 - f. Take any action authorized by law against any person, including Defendants, to eliminate or mitigate new or newly discovered conditions at the Site that may present an imminent threat to the public health or welfare, or the environment;
 - g. Seek legal and/or equitable relief to enforce the requirements of this Consent Order, including penalties against Defendants for noncompliance with this Consent Order; and/or

- h. Terminate this Consent Order and/or perform all or any portion of the Work or take any other measures it deems necessary to protect public health or safety or the environment, including the recovery of all response costs, in the event that requirements of this Consent Order are not wholly complied with within the time frames specified by this Consent Order.

VII. STATEMENT OF ASSETS AND USE OF ASSETS TO IMPLEMENT THIS CONSENT ORDER

7. Within thirty days after the Effective Date of this Consent Order, Defendants shall provide to Plaintiff a certified statement of all Defendants' assets, as well as all expenditures made since one year prior to the date of Plaintiff's Complaint.

8. Within thirty (30) days after the Effective Date of this Consent Order, Defendants shall pay to Plaintiff-Intervenor's legal counsel fifty thousand dollars (\$50,000), for distribution among Plaintiff-Intervenors.

9. All other assets of Defendants, including but not limited to funds in Unizan Bank Account 70100956 (Money Market Savings-Morelli Realty) & Key Bank Account 354251008356 (Bison checking), proceeds from the sale and/or lease of all or any portion of the real property owned by Defendants, and proceeds from the sale of any other property or assets of the Defendants, are to be used for Work described in this Consent Order, and for Defendants' reasonable attorney fees, reasonable Receiver fees, utilities, and other reasonable costs as approved by this Court. Copies of all fee applications shall be served on Plaintiff, who may file

objections to the same with the Court.

10. To the extent that any assets of Defendants remain after Work and all other requirements described in this Consent Order have been fully complied with, nothing in this Consent Order shall be construed to limit the rights of Plaintiff-Intervenors to bring any action against Defendants or any other person(s) for these remaining assets.

11. To the extent that any assets of Defendants remain after Work and all other requirements described in this Consent Order have been fully complied with, nothing in this Consent Order shall be construed to limit the rights of Plaintiff to bring any action against Defendants or any other person(s) for these remaining assets for recovery of Response Costs.

12. No later than thirty (30) days following the end of a quarter, Defendants shall provide to Plaintiff a certified statement of all Defendants' assets as of the end of the quarter, as well as all expenditures made during the quarter.

VIII. SATISFACTION OF LAWSUIT

13. Except as provided in Reservation of Rights, Section VI, and Paragraph 11 of Statement of Assets and Use of Assets to Implement This Consent Order, Section VII, compliance with the terms of this Consent Order shall constitute full satisfaction of any civil liability of Defendants to Plaintiff for all claims alleged in the Complaint.

IX. INDOOR AIR INTERIM ACTION ORDER

14. The Defendants entered into Director's Final Findings and Orders (DFF&Os) (Attached as Appendix C), effective February 7, 2003, for the purpose of implementing an interim action to reduce the concentrations of volatile organic contaminants in the indoor air in homes near the Facility. The DFF&Os required the Defendants to install remedial systems in homes in the vicinity of the Facility, and to perform long-term operation and maintenance for those systems. The systems have been installed and are currently meeting performance standards. The implementation of a long-term operation and maintenance plan for the systems is an on-going requirement of the DFF&O's. The Defendants shall continue to implement all requirements set forth under the February 7, 2003 DFF&Os.

X. REMEDIAL/CORRECTIVE ACTION AND OTHER INJUNCTIVE RELIEF

15. Except as provided for in Paragraph 17, Defendants are ordered and enjoined to comply with all applicable provisions of the Ohio hazardous waste laws and water pollution rules as set forth in R.C. Chapters 3734 and 6111 and Ohio Adm. Code Chapters 3745-50 through 3745-69 and 3745-270.

16. Except as provided for in Paragraph 17, Defendants are ordered and enjoined to comply with and implement the requirements set forth in this Consent Order.

17. If the Receiver at any time determines that the remaining assets of Defendants are less than twenty thousand dollars (\$20,000) and are not sufficient to implement any requirement of this consent order, the Receiver, within fifteen (15) days of such determination, shall notify Plaintiff in

writing of the determination and shall state what requirements will not be implemented. The Receiver's determination that the remaining assets are insufficient may be contested by Plaintiff to the Court. If it is determined either by the parties, or by the Court that assets of Defendants are less than twenty thousand dollars (\$20,000) and are not sufficient to implement the remaining requirements of the Consent Order, the Receiver shall seek instructions from the Court, which may include a request that the Court establish a liquidating trust and appoint a liquidating trustee to accept a conveyance from the Receiver of all Defendant's real property and an assignment of all remaining personal property owned by the Defendants, granting to such liquidating trustee power to sell such property, pay expenses, and distribute any remaining proceeds, as provided by the terms of such liquidating trust and the further order of the Court, and creating in such trust or Court Order appropriate immunities from liability for the liquidating trustee, as determined by the Court. Prior to the final order of the Court, Plaintiffs shall have the opportunity to review and submit comments or objections to the proposed Court Order.

XI. INTERIM ACTION

18. Ohio EPA has identified the need for an Interim Action (IA) to perform source control activities at the Site. These activities include addressing the source of ongoing ground water contamination at the Site which includes the removal of Saturated Soils. Within ten (10) days after the effective date of this Consent Order, unless otherwise mutually agreed to by Ohio EPA and the Defendants, Defendants shall meet with Ohio EPA to discuss Ohio EPA's requirements for the IA

Work Plan. Within forty-five (45) days after the effective date of this Consent Order, Defendants shall submit to Ohio EPA for review and approval an IA Work Plan for the Site. The IA Work Plan shall address the source control activities as an Interim Action which includes the removal of Saturated Soils. Upon approval of the IA Work Plan, Defendants shall implement this Interim Action in accordance with the schedules in the approved IA Work Plan. Defendants shall implement the source control activities until such time that costs incurred for the source control activities are at least one hundred fifty thousand dollars (\$150,000), or all Saturated Soils are removed.

XII. REMEDIAL INVESTIGATION

19. It is anticipated that the City of Canton will apply for an assessment grant from the Clean Ohio Assistance Fund for the purpose of completing a Remedial Investigation (RI) at the Site. If funding is obtained, the City of Canton shall notify Defendants and Ohio EPA that such funding was obtained. To the extent that the City of Canton completes any RI activities in a manner approved by Ohio EPA, Defendants are relieved from completing those RI activities. Ohio EPA will provide oversight of RI activities conducted by the City of Canton, and review and approval of related documents including the RI Work Plan and RI Report. Upon approval of the RI Report, Ohio EPA will notify Defendants. In addition, Ohio EPA will notify Defendants of any RI activities which the City of Canton fails to complete. If Ohio EPA notifies Defendants that the City of Canton has failed to satisfactorily complete any RI activities, Defendants shall complete those remaining RI activities in accordance with the RI Work Plan.

20. If the City of Canton is unsuccessful in securing approval for funding for the RI

within 180 days after the effective date of this Consent Order, Defendants shall complete the RI. If within 180 days after the effective date of this Consent Order, Defendants have not received notice that the City of Canton has secured funding for the RI, or if the Defendants have received notice that the City of Canton is unsuccessful in securing funding for the RI, within ten (10) days after notification or within ten (10) days after the passing of the 180-day period, whichever occurs first, Defendants shall meet with Ohio EPA to discuss Ohio EPA's requirements for the RI Work Plan. Within 45 days after notification or within 45 days after the passing of the 180-day period for the City of Canton to secure funding for the RI, whichever occurs first, Defendants shall submit to Ohio EPA for review and approval a Work Plan for the completion of the RI for the Site. The RI Work Plan shall be prepared in accordance with the Statement of Work (SOW), Appendix B, and the Applicable Guidance Documents, Appendix A, attached to this Consent Order. The RI Work Plan will be reviewed in accordance with the Review of Submittals Section of this Consent Order.

21. Upon approval of the RI Work Plan by Ohio EPA, Defendants shall implement the RI Work Plan as approved by Ohio EPA and in accordance with the schedules contained therein. Defendants shall submit all plans, reports, or other deliverables required under the approved RI Work Plan, in accordance with the approved schedule, for review and approval pursuant to the Review of Submittals Section of this Consent Order.

22. Defendants shall submit the RI Report in accordance with the schedule approved in the RI Work Plan.

XIII. FEASIBILITY STUDY

23. Within fourteen (14) days after Ohio EPA notifies Defendants of the approval of the RI Report, Defendants shall meet with Ohio EPA to discuss the requirements of the FS Work Plan unless otherwise mutually agreed to by Ohio EPA and Defendants.

24. Within sixty (60) days after Ohio EPA approval of the RI Report, Defendants shall submit to Ohio EPA for review and approval a FS Work Plan developed in accordance with the FS SOW and Applicable Guidance Documents. The FS Work Plan shall identify and evaluate potential remedial activities including treatability studies for any releases identified at the Site. The FS Work Plan will be reviewed in accordance with the Review of Submittals Section of this Consent Order.

25. Upon approval of the FS Work Plan by Ohio EPA, Defendants shall implement the FS Work Plan as approved by Ohio EPA and in accordance with the schedules contained therein. Defendants shall submit all plans, reports, or other deliverables required under the approved FS Work Plan, in accordance with the approved schedule, for review and approval pursuant to the Review of Submittals Section.

26. Defendants shall submit the FS Report in accordance with the schedule approved in the FS Work Plan.

XIV. SELECTION OF THE REMEDY

27. Upon completion of the FS and approval by Ohio EPA, Ohio EPA will prepare a Preferred Plan for the Site that describes the remedy for the Site preferred by Ohio EPA. Ohio EPA will follow the procedures of the Interim Final Policy entitled "Preferred Plans and Decision

Documents,” attached to this Consent Order as Appendix D. Ohio EPA will provide for public notice and solicit comments from the public on the Preferred Plan for a period of thirty (30) days, in accordance with Appendix D.

28. Upon completion of the public comment period and after consideration of the comments received from the public, Ohio EPA will issue a Decision Document that describes the Remedial Actions that have been chosen by Ohio EPA as the final remedy for the Site.

XV. ADDITIONAL WORK

29. Ohio EPA or Defendants may determine that in addition to the tasks associated with the completion of the IA, RI, and FS described in this Consent Order, additional work may be necessary to accomplish the objectives of the Remedial Design/Remedial Action as set forth in the Statement of Purpose and Definition Sections of this Consent Order.

30. Within forty-five (45) days after receipt of written notice from Ohio EPA that additional work is necessary, Defendants shall submit a work plan for the performance of the additional work. The work plans shall be developed in conformance with any applicable guidance found in Appendix A and the SOW. Upon approval of a work plan by Ohio EPA, Defendants shall implement a work plan for additional work as approved by Ohio EPA and in accordance with the approved schedule for additional work.

31. Defendants shall submit additional work reports including a completion report to Ohio EPA in accordance with the schedules contained therein.

XVI. LAND USE AND CONVEYANCE OF TITLE

32. Deed Notice. Within thirty (30) days of the Effective Date of this Consent Order, or prior to conveying an interest in the property which is part of the Site, Defendant Morelli Realty Corp. shall record a notice on the deed to the property which is part of the Site owned by the Defendant Morelli Realty Corp. with the County Recorder's Office for Stark County, Ohio. The notice shall reference the existence of this Consent Order as well as any monitoring, treatment, or containment devices present on Defendant Morelli Realty Corp.'s property. A copy of the recorded notice shall be submitted to Ohio EPA within thirty (30) days of recording the notice. Thereafter, if Defendant Morelli Realty Corp. conveys any interest in the property included in the Site, each deed, title, or other instrument shall contain a notice stating that the property is subject to this Consent Order and shall reference any monitoring, treatment, or containment devices present on the property as a result of this Consent Order, and shall include a requirement that any subsequent owner shall not in any way compromise said monitoring, treatment, or containment devices. In addition, the Defendant Morelli Realty Corp. shall review the deed notice on an annual basis and revise the deed notice if new monitoring, treatment, or containment devices have been added to the property as a result of this Consent Order.

33. Land Use. Defendants, their successors and assigns shall ensure that no portion of the Site shall be used in any manner that would adversely affect the integrity of any containment, treatment, or monitoring systems at the Site, or violate any use restrictions applicable to the Site under this Consent Order.

34. Notice of Transfer of Property. Prior to the Defendant Morelli Realty Corp. executing

any instrument conveying any interest in any portion of the Site, including but not limited to easements, deeds, leases and mortgages, Defendant Morelli Realty Corp. shall notify the party purchasing the property of the existence of any containment, treatment, and monitoring systems on the Site and any use restrictions in the Consent Order, and shall provide a copy of this Consent Order to the party purchasing the property. Except for a conveyance to the liquidating trustee as provided for in Paragraph 17 hereof, Defendant Morelli Realty Corp. shall notify Ohio EPA at least sixty (60) days in advance of each conveyance of an interest in any portion of the property that is known to comprise the Site. Defendant Morelli Realty Corp.'s notice shall include the name and address of the party purchasing the property and a description of the provisions made for the continued access to and maintenance of the containment, treatment, and monitoring systems. If a conveyance is made to a liquidating trustee and thereafter conveyed by the liquidating trustee to a third party, the liquidating trustee shall notify Ohio EPA at least sixty (60) days in advance of any such conveyance.

35. Within thirty (30) days after conveyance of any interest in the property, the Defendant Morelli Realty Corp. shall submit to Ohio EPA, via certified mail, the following information:

- a. A copy of the deed or other documentation evidencing the conveyance;
- b. The name, address, and telephone number of the new property owner and the name, address, and telephone number of the contact person for the property;
- c. A legal description of the property, or the portion of the property, being transferred;
- d. A copy of the survey map, if any, of the property, or the portion of the property, being transferred; and

- e. The closing date of the transfer of ownership of the property, or portion of the property.

XVII. DESIGNATION OF SITE COORDINATORS

36. Within ten (10) days of the entry of this Consent Order, Defendants shall designate a Site Coordinator to oversee and implement the Work required by this Consent Order and to coordinate with the Ohio EPA Site Coordinator. Defendants may also designate an alternate Site Coordinator. To the maximum extent practicable, communication between Defendants and Ohio EPA concerning the activities performed under this Consent Order shall be through the Site Coordinators. Each Party's Site Coordinator shall be responsible for assuring that communications from the other Party are appropriately disseminated and processed. For the duration of this Consent Order, Defendants' designated Site Coordinator or alternate shall be on-site or on-call during all hours of Work to be performed pursuant to this Consent Order. The absence of the Ohio EPA Site Coordinator from the Site shall not be cause for stoppage of Work unless otherwise provided.

37. Defendant or Ohio EPA may change their Site Coordinator or alternate by notifying the other party at least five (5) days prior to the change, unless impractical, but in no event later than the actual day the change is made.

38. Without limiting any authority conferred by law on the Ohio EPA, the authority of the Ohio EPA Site Coordinator includes, but is not limited to:

- a. Taking samples and directing the type, quantity and location of samples to be taken by Defendants pursuant to an approved Work Plan;

- b. Observing, taking photographs, or otherwise recording information related to the implementation of this Consent Order, including the use of any mechanical or photographic device;
- c. Directing that Work stop whenever the Site Coordinator for Ohio EPA determines that the activities at the Site may create or exacerbate a threat to public health or safety, or threaten to cause or contribute to air or water pollution of soil contamination;
- d. Conducting investigations and tests related to the implementation of this Consent Order;
- e. Inspecting and copying records, operating logs, contracts and/or other documents related to the implementation of this Consent Order; and
- f. Assessing compliance with this Consent Order by Defendants, Receiver, and their agents and/or contractors.

XVIII. SAMPLING AND DATA AVAILABILITY

39. Defendants shall notify Ohio EPA not less than seven (7) days in advance of all sample collection activity. Upon request, Defendants shall allow split and/or duplicate samples to be taken by Ohio EPA. Ohio EPA shall also have the right to take any additional samples it deems necessary.

40. As part of the monthly progress reports required in Progress Reports and Notice Section of this Consent Order, Defendants shall submit to Ohio EPA copies of the results of all

sampling and/or tests or other data, including validated raw data and original laboratory reports, generated by or on behalf of Defendants with respect to the Site and relative to the implementation of this Consent Order.

41. Defendants shall submit to Ohio EPA all interpretive reports and written explanations concerning the raw data and original laboratory reports. Such interpretive reports and written explanations shall not be submitted in lieu of original laboratory reports and raw data. Should Defendants subsequently discover an error in any report or raw data, Defendants shall promptly notify Ohio EPA of such discovery and provide the current information.

XIX. ACCESS

42. As of the effective date of this Consent Order, Plaintiff and its representatives and contractors shall, after notice to the Defendants, have access at all times to the Site, which includes the Facility and any other property controlled by or available to Defendants to which access is necessary to effectuate the actions required by this Consent Order. Access shall be allowed for the purposes of conducting activities related to this Consent Order including but not limited to:

- a. Monitoring the work or any other activities taking place at the Site;
- b. Verifying any data or information submitted to Plaintiff;
- c. Conducting investigations relating to contamination at or near the Site;
- d. Obtaining samples;
- e. Assessing the need for, planning, or implementing additional response actions at or near the Site;

- f. Inspecting and copying records, operating logs, contracts or other documents maintained or generated by Defendant or its agents, consistent with this Consent Order and applicable law; or
- g. Assessing compliance with this Consent Order by Defendants, Receiver, and their agents and/or contractors.

43. To the extent that any property of the Site, to which access is necessary to effectuate the actions required by this Consent Order, is owned or controlled by persons other than Defendants, Defendants shall use their best efforts to secure access from such persons for Defendants and the Ohio EPA as necessary to effectuate this Consent Order. Copies of all access agreements obtained by Defendants shall be provided promptly to Ohio EPA. If any access required to effectuate this Consent Order is not obtained within thirty (30) days of the effective date of this Consent Order, or within thirty (30) days of the date Ohio EPA notifies Defendants in writing that additional access beyond that previously secured is necessary, Defendants shall promptly notify the Ohio EPA in writing of the steps Defendants have taken to attempt to obtain access. Ohio EPA may, as it deems appropriate, assist Defendants in obtaining access.

44. Nothing in this Consent Order shall be construed to limit the statutory authority of the Director or his authorized representatives to enter at reasonable times upon any private or public property, real or personal, to inspect or investigate, obtain samples and examine or copy any records to determine compliance with R.C. Chapters 3734 and/or 6111.

XX. PROGRESS REPORTS AND NOTICE

45. Beginning with the first full month following the effective date of this Consent Order and throughout the period that this Consent Order is effective, unless otherwise directed by Ohio EPA, Defendants shall submit, by mail, written progress reports to Ohio EPA by the tenth day of every month. At a minimum, the progress reports shall:

- a. Describe the status of the Work and actions taken toward achieving compliance with the Consent Order during the reporting period;
- b. Describe the difficulties encountered during the reporting period and actions taken to rectify any difficulties;
- c. Describe activities planned for the next month;
- d. Identify changes in key personnel;
- e. List targets and actual completion dates for each element of activity, including project completion;
- f. Provide an explanation for any deviation from any applicable schedule;
- g. Indicate what analytical data was received during the period and provide copies of all data required under Sampling and Data Availability Section of this Consent Order.
- h. Indicate the quantity of the contaminated soil and waste that was treated and/or removed, and contaminated ground water and surface water that was treated, and indicate where such contaminated media were disposed.

XXI. REVIEW OF SUBMITTALS

46. This section applies to all documents Defendants are required to submit to Ohio EPA for review and approval in accordance with the requirements of this Consent Order (e.g., IA, RI, and FS).

47. All documents submitted to Ohio EPA shall be developed in accordance with the attached Applicable Guidance Documents and SOW (Appendices A and B). Every document that Defendants are required to submit to Ohio EPA under this Consent Order is subject to the review and approval of Ohio EPA in accordance with this Consent Order and applicable State and federal laws. Upon review, Ohio EPA may at its sole discretion: (a) approve the submission in whole or in part; (b) approve the submission upon specified conditions or modifications; (c) disapprove the submission in whole or in part; (d) notify Defendants of deficiencies; or (e) any combination of the above.

48. If Ohio EPA disapproves a submission, in whole or in part, Ohio EPA will notify Defendants of the deficiencies in writing. Defendants shall, within forty-five (45) working days of receipt of Ohio EPA's written notice, or if supplemental field, laboratory, or other investigatory work must be performed, within forty-five (45) working days of completion of such work, or such longer period of time as specified in writing by Ohio EPA, correct the deficiencies and submit a revised submission to Ohio EPA for approval. Notwithstanding the notice of deficiency, Defendants shall proceed to take any action(s) required by the approved portion(s) of the submission.

49. If Ohio EPA does not approve a revised submission, in whole or in part, Ohio EPA may again require Defendants to correct the deficiencies and incorporate all changes, additions,

and/or deletions within fourteen (14) days, or such time period as specified by Ohio EPA in writing. In the alternative, Ohio EPA may approve upon conditions, modify or disapprove the revised submission.

50. In the event of approval or approval upon conditions or modifications, Defendants shall proceed to take any action required by the submission as approved by the Ohio EPA.

51. All work plans, reports, or other items required to be submitted to Ohio EPA under this Consent Order shall, upon approval by Ohio EPA, be deemed to be incorporated in and made an enforceable part of this Consent Order. In the event that Ohio EPA approves a portion of a work plan, report, or other item, the approved portion, together with any modifications or conditions thereto, shall be deemed to be incorporated in and made an enforceable part of this Consent Order.

52. If Ohio EPA determines that any additional or revised guidance documents affect the Work to be performed in implementing and work plans, reports, or other items required to be submitted to Ohio EPA under this Consent Order, Ohio EPA may notify Defendants, and Defendants shall modify the work plan, report, or other item according to Ohio EPA's comments.

XXII. DISPUTE RESOLUTION

53. The procedures described within this Section shall apply to the following Sections of this Consent Order: Additional Work, Section XV; and Review of Submittals, Section XXI.

54. Defendants and Ohio EPA shall make reasonable efforts to informally resolve any good faith dispute regarding this Consent Order at the Site Coordinator level, within thirty (30) days following the occurrence of the actions or circumstances giving rise to the dispute. If resolution

cannot be achieved informally, the Ohio EPA or Defendants may elevate the dispute for resolution pursuant to this Section. If Defendants do not submit a written notification of dispute to Ohio EPA within 30 days following the occurrence of the actions or circumstances giving rise to the dispute, Defendants shall be deemed to have accepted the position of Ohio EPA.

55. To initiate formal dispute resolution, Ohio EPA or Defendants shall submit to the other a written notification of any good faith dispute related to the Sections of the Consent Order noted above. The written notification of dispute shall specify the nature of the dispute, the Work affected by the dispute, the disputing party's position with respect to the dispute and the information the disputing party is relying upon to support its position.

56. If the Site Coordinators and designated representatives of the Ohio EPA and Defendants are unable to resolve such dispute within thirty (30) days of written notification of the dispute, then both Ohio EPA and Defendants may submit a written statement of dispute to Ohio EPA's Chief of the Division of Emergency and Remedial Response ("Chief") or his or her designee. The Chief or his or her designee may meet with the Site Coordinators and designated representatives of Ohio EPA and Defendants, and may request additional information regarding the nature of the dispute and the respective positions of Ohio EPA or Defendants. The Chief or his or her designee will notify the Site Coordinators and designated representatives of Ohio EPA and Defendants in writing of the final decision regarding the dispute. The Chief or his or her designee shall sign the final decision.

57. Any Defendant may petition the Court within 14 days of receipt of the Chief of DERR's written notification of dispute resolution as described in the preceding paragraph. The Court

shall affirm the Chief of DERR's resolution of the dispute unless the petitioning Defendant demonstrates that the resolution was unlawful or unreasonable within the meaning of R.C. Chapter 3745 or inconsistent with this Consent Order.

58. Except as provided in this Section, Defendants shall maintain compliance with this Consent Order. However, if Ohio EPA agrees that there is a good faith dispute, Ohio EPA may extend the time period for completion of work affected by dispute for a period of time not to exceed the actual time taken to resolve such good faith dispute in accordance with this Section.

59. Unless a dispute is elevated to the Court, Defendants shall incorporate the resolution and final decision of Ohio EPA into the appropriate plan, schedule or procedure and shall proceed with implementation within thirty (30) days of such resolution and final decision.

XXIII. MAILING AND DELIVERY OF DOCUMENTS

60. All documents requiring submittal pursuant to this Consent Order or any plan developed in accordance with this Consent Order shall be sent by certified mail return receipt requested, or equivalent, to:

Ohio EPA Northeast District Office
Division of Emergency and Remedial Response
Attn. Bison Site Coordinator, DERR
2110 East Aurora Road
Twinsburg, OH 44087

All correspondence with the Defendants shall be sent to the following:

Victor Marsh, Esq.
Black McCuskey Souers & Arbaugh
1000 Unizan Plaza
220 Market Avenue South
Canton, OH 44702-2116

All correspondence with the Plaintiff-Intervenors shall be sent to:

Gregory J. DeGulis, Esq.
The Caxton Building
812 Huron Road
Cleveland, OH 44115-1126

61. The notice required by Paragraph 17, Remedial/Corrective Action and Other Injunctive Relief, Section X, shall also be sent by certified mail return receipt requested to the Assistant Attorney General representing the State regarding this Consent Order.

XXIV. COMPLIANCE WITH APPLICABLE LAWS, PERMITS AND APPROVALS

62. All activities undertaken by Defendants pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable federal, state and local laws, rules, regulations and permits or other legal requirements, including the Consent Order. Defendants shall submit timely applications and requests for any such permits and approvals. Where such laws appear to conflict with the other requirements of this Consent Order, Defendants are ordered and enjoined to immediately notify Ohio EPA of the potential conflict. Defendants are ordered and enjoined to include in all contracts or subcontracts entered into for work required under this Consent Order, provisions stating that such contractors or subcontractors, including their agents and employees, shall

perform all activities required by such contracts or subcontracts in compliance with this Consent Order and all applicable laws and rules. This Consent Order is not a permit issued pursuant to any federal, state or local law or rule.

63. Should Defendants identify any inconsistency between or among this Consent Order, any applicable federal, state or local laws, rules, regulations or permits or other legal requirements, or any of the guidance documents, work plans, reports, or other items required to be submitted to Ohio EPA under this Consent Order, Defendants shall promptly notify Ohio EPA in writing of each inconsistency not later than thirty (30) days after identifying the inconsistency and the effect of the inconsistencies upon the Work to be performed. Defendants shall also recommend, along with a supportable rationale justifying each recommendation, the requirement Defendants believe should be followed. Defendants shall implement the affected Work as directed by Ohio EPA.

XXV. RETENTION OF JURISDICTION

64. This Court shall retain jurisdiction of this action for the purpose of enforcing this Consent Order.

XXVI. ENTRY OF CONSENT ORDER AND JUDGMENT BY CLERK

65. Upon signing of this Consent Order by the Court, the clerk is directed to enter it upon the journal. Within three (3) days of entering the judgment upon the journal, the clerk is directed to serve upon all parties' notice of the judgment and its effective date upon the journal in the manner

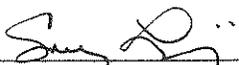
prescribed by Rule 5(B) of the Ohio Rules of Civil Procedure and note the service in the appearance docket.

XXVII. AUTHORITY TO ENTER INTO THE CONSENT ORDER

66. Each signatory for a corporation represents and warrants that he/she has been duly authorized to sign this document and so bind the corporation to all terms and conditions thereof, and that he/she submits with this Consent Order an authenticated and certified resolution from the corporation establishing that he/she is so empowered.

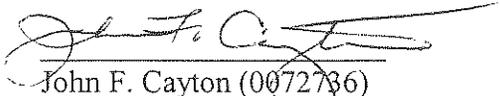
IT IS SO ORDERED.

JUDGE SARA LIOI



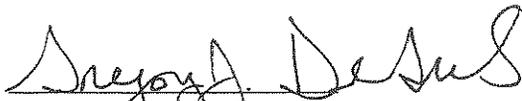
STARK COUNTY
COURT OF COMMON PLEAS

By:



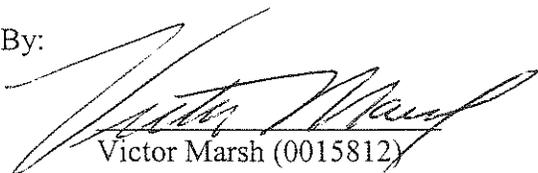
John F. Cayton (0072736)
Assistant Attorney General
Environmental Enforcement Section
One Seagate, Suite 2150
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Attorney for Plaintiff State of Ohio

By:



Gregory J. DeGulis (0045705)
The Caxton Building
812 Huron Road
Cleveland, OH 44115-1126
Attorney for Plaintiff-Intervenors

By:



Victor Marsh (0015812)
Black McCuskey Souers & Arbaugh
1000 Unizan Plaza
220 Market Avenue South
Canton, OH 44702-2116
Attorney for Receiver, James R. Kandel

Bison Corporation

By:


James R. Kandel, Receiver

Morelli Realty Corporation

By:


James R. Kandel, Receiver

LIST OF APPENDICES

- A. Ohio EPA and U.S. EPA Guidance Documents
- B. Generic Statement of Work Remedial Investigation/Feasibility Study (RR-006)
- C. February 7, 2003 Director's Final Findings and Orders
- D. Preferred Plan and Decision Document Procedures (RR-013)

APPENDIX A

OHIO EPA AND U.S. EPA GUIDANCE DOCUMENTS

Statement of Purpose and Use of This Guidance Document List:

The purpose of this list of Ohio EPA and U.S. EPA policies, directives and guidance documents is to provide a reference of the documents which provide essential direction and guidance for conducting investigations, evaluating alternative remedial actions, and designing and implementing selected remedial actions at sites for which the Division of Emergency and Remedial Response has authority over such activities. Certain sites may have contaminants or conditions which are not fully addressed by the documents in this list. There is an evolving body of policy directives, guidance and research documentation which should be utilized, as necessary, to address those conditions and contaminants not encompassed by the documents in this list. For sites where activities are conducted in response to an administrative or judicial order, this list would be an attachment to the order and would govern the work conducted pursuant to it. When entering into or issuing an order for a particular site, Ohio EPA reserves the right to modify this list to fully address the site conditions.

OHIO EPA POLICIES AND GUIDANCE DOCUMENTS

1. Guidelines and Specifications for Preparing Quality Assurance Project Plans, Ohio EPA, Division of Emergency and Remedial Response, Policy No. DERR-00-RR-008, March 1990 (September 1, 1998, Final)
<http://www.epa.state.oh.us/derr/policies/RR-008.pdf>
2. Procedures for Evaluation of Response Action Alternatives and Remedy Selection for Remedial Response Program Sites, Ohio EPA Policy No. DERR-00-RR-019, Final, October 23, 1992 (September 14, 1999, Revised)
<http://www.epa.state.oh.us/derr/policies/RR-019.pdf>
3. Remediation Using Monitored Natural Attenuation, Remedial Response Program Fact Sheet, OEPA/DERR, 2000
4. Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring Programs, Ohio EPA, Division of Drinking and Ground Waters, Final, February 1995 <http://www.epa.state.oh.us/ddagw/tgmweb.htm>

5. Wastewater Discharges Resulting from Clean-Up of Response Action Sites Contaminated with Volatile Organic Compounds, Ohio EPA Policy No. DSW-DERR 0100.027, Final, September 22, 1994, <http://www.epa.state.oh.us/derr/rules/100-27.pdf>

Also, if there are any aquatic ecological concerns for the site under investigation please consult the following Biological Criteria documents:

- 6a. Biological Criteria for the Protection of Aquatic Life: Volume I. The Role of Biological Data in Water Quality Assessment. Ohio EPA, Division of Surface Water, 1987
<http://www.epa.state.oh.us/dsw/bioassess/BioCriteriaProtAqLife.html>
- 6b. Biological Criteria for the Protection of Aquatic Life: Volume II. Users Manual for Biological Field Assessment of Ohio Surface Waters. Ohio EPA, Division of Surface Water, 1987
<http://www.epa.state.oh.us/dsw/bioassess/BioCriteriaProtAqLife.html>
- 6c. Addendum to Biological Criteria for the Protection of Aquatic Life: Volume II. Users Manual for Biological Field Assessment of Ohio Surface Waters. Ohio EPA, Division of Surface Water, 1989
<http://www.epa.state.oh.us/dsw/bioassess/BioCriteriaProtAqLife.html>
- 6d. Biological Criteria for the Protection of Aquatic Life: Volume III. Standardized Biological Field Assessment of Ohio Surface Waters. Ohio EPA, Division of Surface Water, 1989
<http://www.epa.state.oh.us/dsw/bioassess/BioCriteriaProtAqLife.html>
- 6e. Rankin, E.T. 1989. The Qualitative Habitat Evaluation Index (QHEI): Rationale, Methods, and Application. Ohio EPA, Division of Surface Water, 1990
<http://www.epa.state.oh.us/dsw/bioassess/BioCriteriaProtAqLife.html>
7. Generic Statement of Work, Remedial Investigation/Feasibility Study, DERR-00-RR-006, September 14, 1999, <http://www.epa.state.oh.us/derr/policies/RR-006.pdf>.
8. Ecological Risk Assessment Guidance Document, Ohio EPA, Division of Emergency and Remedial Response, February 2003, <http://www.epa.state.oh.us/derr/rules/RR-031.pdf>

U.S. EPA GUIDANCE DOCUMENTS AND OTHER USEFUL GUIDANCE

Ohio EPA/U.S. EPA Guidance Documents

1. Guidance for Conducting Remedial Investigation and Feasibility Studies under CERCLA, Interim Final, OSWER 9355.3-01, EPA/540/G-89/004, October 1988 (# 540G89004),
<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OSWER:1421;&rank=4&template=epa>
2. Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites, OSWER Directive 9355.3-11, EPA/540/P-91/001, February 1991 (# 540P91001),
<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OSWER:1565;&rank=4&template=epa>
3. CERCLA Compliance with Other Laws Manual - Part I, OSWER Directive 9234.1-01, EPA/540/G-89/006, August 1988, interim final
<http://www.epa.gov/superfund/resources/remedy/pdf/540g-89006-s.pdf>
4. Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action and Underground Storage Tank Sites, OSWER Directive 9200.4-17P, 1999
<http://www.epa.gov/swerust1/directiv/d9200417.pdf>
5. Technical Guidance Document: Construction Quality Assurance and Quality Control for Waste Containment Facilities, EPA/600/R-93/182, September 1993 (# 600R93182),
<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:ORD:0736;&rank=4&template=epa>
6. CERCLA Compliance with Other Laws Manual - Part II, OSWER 9234.1-01, EPA/540/G-89/006, August 1988, interim final
<http://www.epa.gov/superfund/resources/remedy/pdf/540g-89009-s.pdf>
7. A Compendium of Technologies Used in the Treatment of Hazardous Wastes, EPA/625/8-87/014, September 1987 (# 625887014),
<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:ORD:1957;&rank=4&template=epa>
8. A Rationale for the Assessment of Errors in the Sampling of Soils, EPA/600/4-90/013, July 1990
9. Assessment of Technologies for the Remediation of Radioactively Contaminated Superfund Sites, EPA/540/2-90/001, January 1990 (# 540290001),
<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OSWER:1184;&rank=4&template=epa>

10. Data Quality Objectives Process for Superfund, Interim Final Guidance, OSWER Directive 9355.9-01, EPA540-R-93-071, September 1993 (Replaced by EPA/600/R-96/055, <http://www.epa.gov/quality/qs-docs/g4-final.pdf>)
12. Exposure Factors Handbook, EPA/600/8-89/043, March 1990 (# 600889043), <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:ORD:0313;&rank=4&template=epa>
- 13.* Guidance for Remedial Actions for Contaminated Ground Water at Superfund Sites, OSWER Directive 9283.1-2, EPA/540/G-88/003, December 1988, interim final
<http://www.epa.gov/superfund/resources/remedy/pdf/540g-88003.pdf>
- 14.* Guidance on Remedial Actions for Superfund Sites with PCB Contamination, OSWER Directive 9355.4-01, EPA/540/G-90/007, August 1990
<http://www.epa.gov/superfund/resources/remedy/pdf/540g-90007-s.pdf>
15. Guidance for Data Usability in Risk Assessment, OSWER Directive 9285.7-05, EPA/540/G-90/008, October 1990, interim final
<http://www.epa.gov/superfund/programs/risk/datause/index.htm>
- 16.* Guide for Decontaminating Buildings, Structures, and Equipment at Superfund Sites, EPA/600/2-85/028, March 1985 (available through NTIS/PB85-201234)
17. Guide for Conducting Treatability Studies Under CERCLA: Soil Vapor Extraction, EPA/540/2-91/019A, September 1991, interim guidance (#540291019A), <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OSWER:1202.&rank=4&template=epa>
18. Guide for Conducting Treatability Studies Under CERCLA: Aerobic Biodegradation Remedy Screening, EPA/540/2-91/013A, July 1991, interim guidance
<http://www.epa.gov/superfund/resources/remedy/pdf/5402-91013a-s.pdf>
19. Guide for Conducting Treatability Studies Under CERCLA, EPA/540/2-89/058, December 1989, interim final
- 20.* Handbook - Quality Assurance/Quality Control (QA/QC) Procedures for Hazardous Waste Incineration, EPA/625/6-89/023, January 1990 (# 625689023),
<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:ORD:1930;&rank=4&template=epa>

Ohio EPA/U.S. EPA Guidance Documents

21. Handbook - Dust Control at Hazardous Waste Sites, EPA/540/2-85/003, November 1985 (# 540285003), <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OSWER:1176;&rank=4&template=epa>
- 22.* Handbook - Guidance on Setting Permit Conditions and Reporting Trial Burn Results - Volume II of the Hazardous Waste Incineration Guidance Series, EPA/625/6-89/019, January 1989 (# 625689019), <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:ORD:1926;&rank=4&template=epa>
23. Handbook on In Situ Treatment of Hazardous Waste-Contaminated Soils, EPA/540/2-90/002, January 1990, (NTIS PB90-155607/XAB)
24. Handbook for Stabilization/Solidification of Hazardous Wastes, EPA/540/2-86/001, June 1986 (# 540286001), <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OSWER:1177;&rank=4&template=epa>
25. Handbook - Hazardous Waste Incineration Measurement Guidance Manual - Volume III of the Hazardous Waste Incineration Guidance Series, EPA/625/6-89/021, June 1989 (# 625689021), <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:ORD:1928;&rank=4&template=epa>
26. Natural Attenuation for Groundwater Remediation, Committee on Intrinsic Remediation, National Academy of Sciences, 2000
<http://www.nap.edu/books/0309069327/html/index.html>
27. Preparation Aids for the Development of Category 1 Quality Assurance Project Plans, EPA/6008-91-003, February 1991 (#600891003),
<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:ORD:0329;&rank=4&template=epa>
28. Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures, Interim Final, EPA/540/G-90/004, April 1989 (# 540G90004), <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OSWER:1427;&rank=4&template=epa>
29. Region 5 Framework for Monitored Natural Attenuation Decisions for Ground Water, USEPA, 2000 (Use the main EPA MNA Guidance OSWER 9200.4-17P)
<http://www.epa.gov/OUST/directiv/d9200417.pdf>
30. Role of Background in the CERCLA Cleanup Program, OSWER 9285.6-07P, April 2002
http://www.epa.gov/superfund/programs/risk/bkopol_jan01.pdf

31. Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part A), Interim Final, EPA/540/1-89/002, December 1989 (# 540189002), <http://www.epa.gov/superfund/programs/risk/ragsa/index.htm> or <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OSWER:1175;&rank=4&template=epa>
32. Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part B), "Development of Risk-based Preliminary Remediation Goals," OSWER Directive 9285.7-01B, December 1991, Interim, EPA/540/R-92/003, <http://www.epa.gov/oerrpage/superfund/programs/risk/ragsb/index.htm>
33. Risk Assessment Guidance for Superfund: Volume II -Environmental Evaluation Manual, OSWER Directive 9285.7-01, EPA/540/1-89/001A, March 1989, interim final, superseded by: Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments, EPA/540/R-97/006, September 26, 1997 <http://www.epa.gov/superfund/programs/risk/ecorisk/ecorisk.htm>
34. Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual, Supplemental Guidance: "Standard Default Exposure Factors," OSWER Directive 9285.6-03, March 1991, interim final <http://www.hanford.gov/dqo/project/level5/hhems.pdf>
35. Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part C), "Risk Evaluation of Remedial Alternatives," OSWER Directive 9285.7-01C, December 1991, Interim <http://www.epa.gov/oerrpage/superfund/programs/risk/ragsc/index.htm>
- 36.* Seminar Publication - Requirements for Hazardous Waste Landfill Design, Construction, and Closure, EPA/625/4-89/022, August 1989 (# 625489022), <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:ORD:1913;&rank=4&template=epa>
37. SW 846, Test Methods for Evaluating Solid Waste, 3rd Edition and appropriate updates, November 1986 <http://www.epa.gov/epaoswer/hazwaste/test/main.htm>
38. Stabilization/Solidification of CERCLA and RCRA Wastes - Physical Tests, Chemical Testing Procedures, Technology Screening and Field Activities, EPA/625/6-89/022, May 1989 (# 625689022), <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:ORD:1929;&rank=4&template=epa>

39. Standard Methods for the Examination of Water and Wastewater, American Public Health Association, 18th Edition, 1992
40. Superfund Exposure Assessment Manual, OSWER Directive 9285.5-1, EPA/540/1-88/001, April 1988
41. Superfund Ground Water Issue: Ground Water Sampling for Metals, EPA/540/4-89/001, March 1989 (# 540489001),
<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OSWER:1212;&rank=4&template=epa>
- 42.* Technical Guidance Document: Final Covers on Hazardous Waste Landfills and Surface Impoundments, EPA/530-SW-89-047, July 1989
<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OSWER:2880;&rank=4&template=epa>
43. Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents In Ground Water, EPA/600/R-98/128, September 1998 (#600R98128),
<http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:ORD:0914;&rank=4&template=epa>
44. U.S. EPA Integrated Risk Information System (IRIS) Data Base
<http://www.epa.gov/iris/>
45. U.S. EPA Health Effects Assessment Summary Tables, Office of Emergency & Remedial Response, published annually
46. U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA-540/R-94-013, February 1994
<http://www.epa.gov/superfund/programs/clp/download/fginorg.pdf>
47. U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA-540/R-94-012, February 1994
<http://www.epa.gov/superfund/programs/clp/download/fgorg.pdf>
- 48.* U.S. EPA Office of Emergency & Remedial Response, Comprehensive Five-Year Review Guidance, OSWER No. 9355.7-03B-P, EPA 540-R-01-007, June 2001
49. Superfund Lead-Contaminated Residential Sites Handbook, August 2003, OSWER 9285.7-50,
<http://www.epa.gov/superfund/programs/lead/products/handbook.pdf>

50. U.S. EPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Surface Vapor Intrusion Guidance), EPA530-F-02-052, November 2002,
<http://www.epa.gov/correctiveaction/eis/vapor/complete.pdf>

INNOVATIVE TECHNOLOGY AND REGULATORY COOPERATION PROTOCOLS

1. Multi-State Evaluation of Expedited Site Characterization Technology, Site Characterization and Analysis Penetrometer System-Induced Fluorescence (SCAPS-LIF)-Final-May 1996
<http://www.westgov.org/wga/publicat/scapsweb.htm>
2. Multi-State Evaluation of Expedited Site Characterization Technology, Site Characterization and Analysis Penetrometer System-Volatile Organic Compounds (SCAPS-VOC) Sensing Technologies-Final-December 1997
<http://www.itrcweb.org/common/content.asp?en=TA197873&sea=Yes&set=Both&sca=Yes&sct=Long>
3. ISB Protocol Binder and Resource Document for Hydrocarbons-Final-June 1996
<http://www.itrcweb.org/common/content.asp?en=TA301724&sea=Yes&set=Both&sca=Yes&sct=Long>
4. Closure Criteria Focus Group-Final-March 1998
<http://www.itrcweb.org/common/content.asp?en=TA301724&sea=Yes&set=Both&sca=Yes&sct=Long>
5. Cost & Performance reporting for In-Situ Bioremediation Technologies-Final-December 1997 http://www.itrcweb.org/isb_5.pdf
6. Technical and Regulatory Guidelines for Soil Washing-Final-December 1997
<http://www.itrcweb.org/MIS-1.pdf>
7. Regulatory Guidance for Permeable Barriers Designed to Remediate Chlorinated Solvents-Final-December 1997 http://www.itrcweb.org/PBW_1.pdf
8. Design Guidance for Application of Permeable Barriers to Remediate Dissolved Chlorinated Solvents-Final-February 1997
<http://www.itrcweb.org/common/content.asp?en=TA549175&sea=Yes&set=Both&sca=Yes&sct=Long>

9. Regulatory Guidance for Permeable Barriers to Remediate Inorganics and radionuclides-Draft-October 1998
<http://www.itrcweb.org/common/content.asp?en=TA549175&sea=Yes&set=Both&sca=Yes&sct=Long>
 10. Technical Requirements for On-site Low Temperature Thermal Treatment of Non-Hazardous Soils Contaminated with Petroleum/Coal Tar/ Gas Plant Wastes-Final-1996 <http://www.itrcweb.org/td-1.pdf>
 11. Technical Requirements for On-Site Thermal Desorption of Solid Media Contaminated with Hazardous Chlorinated Solvents-Final-September 1997
<http://www.itrcweb.org/td-2.pdf>
 12. Technical Requirements for On-Site Thermal Desorption of Solid Media Contaminated and Low Level Mixed Waste Contaminated with Mercury and/or Hazardous Chlorinated Organics-Final-September 1997, <http://www.itrcweb.org/td-3.pdf>
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Notes:

- 1) Documents and guidance denoted by an asterisk (*) are those which may be important to the Remedial Design/Remedial Action phase of a project but generally will have limited relevance to the Remedial Investigation/Feasibility Study process.
- 2) This list of guidance documents is updated periodically. You should check with Ohio EPA to verify that this list is the most current available.
- 3) The ITRC documents can be downloaded from the ITRC web site, www.sso.org/ecos/itrc.

)Disclaimer: Please note that the links to web sites are not maintained.

APPENDIX B

DERR-00-RR-006

GENERIC STATEMENT OF WORK REMEDIAL INVESTIGATION/FEASIBILITY STUDY STATE VERSION

Issued - 05/26/92
Revised Final - 09/14/99
Updated - 10/3/03

PURPOSE:

The purpose of this remedial investigation/feasibility study (RI/FS) is to investigate the nature and extent of releases of hazardous waste or constituents, pollutants, wastes, industrial wastes or contaminants at the Site, assess the potential risk to human health and the environment, and develop and evaluate potential remedial alternatives. The RI and FS are interactive and may be conducted concurrently so that the data collected in the RI influences the development of remedial alternatives in the FS, which in turn affects the data needs and the scope of treatability studies.

The Respondent shall conduct this RI/FS and shall produce an RI and FS report that are in accordance with this statement of work, the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (RI/FS Guidance) (U.S. EPA, Office of Emergency and Remedial Response, October 1988), and any other guidances that Ohio EPA uses in conducting an RI/FS (a list of the primary guidances is attached), as well as any additional requirements in the administrative order. The RI/FS Guidance describes the report format and the required report content. The Respondent shall furnish all necessary personnel, materials, and services needed, or incidental to, performing the RI/FS, except as otherwise specified in the administrative order.

At the completion of the RI/FS and the terms of this Order, the Ohio EPA shall be responsible for the selection of a site remedy. The remedial action alternative selected by the Ohio EPA shall be protective of human health and the environment, shall be in compliance with applicable or relevant and appropriate requirements of other laws, will be cost-effective, shall utilize permanent solutions and alternative treatment technologies or resource recovery technologies, to the maximum extent practicable, and shall address the statutory preference for treatment as a principal element. The final RI and FS reports, as approved by the Ohio EPA, shall, with the administrative record, form the basis for the selection of the site's remedy and will provide the information necessary to support the development of a decision document.

The Ohio EPA shall provide oversight of the Respondent's activities throughout the RI/FS. The Respondent shall support the Ohio EPA's initiation and conduct of activities related to the implementation of oversight activities.

TASKS/DELIVERABLES:

The Remedial Investigation/Feasibility Study consists of eleven tasks:

TASK 1 -- Scoping of the RI/FS

- A. Site Background/Site History
- B. Current or Previous Interim/Emergency Actions

TASK 2 -- Work Plan Requirements

- A. RI/FS Work Plan
- B. Quality Assurance Project Plan
- C. Field Sampling Plan
- D. Health and Safety Plan

TASK 3 -- Interim Actions

TASK 4 -- Community Relations

TASK 5 -- Remedial Investigation

- A. Environmental Setting
- B. Source Characterization
- C. Contamination Characterization
- D. Ecological Assessment
- E. Potential Receptor Identification
- F. RI report

TASK 6 -- Human Health Baseline Risk Assessment

- A. Conceptual Site Model
- B. Human Risk Assessment Report

TASK 7 -- Environmental Baseline Risk Assessment

- A. Conceptual Site Model
- B. Environmental Risk Assessment Report

TASK 8 -- Development and Screening Alternatives

- A. Remedial Action Objectives
- B. Technologies Screening
- C. Alternatives Array

TASK 9 -- Treatability Study

- A. Treatability Study Work Plan
- B. Treatability Study Evaluation Report

TASK 10 -- Detailed Analysis of Alternatives

- A. Detailed Analysis of Alternatives Report
- B. Feasibility Study Report

TASK 11 -- Monthly Progress Reports

TASK 1 -- SCOPING OF THE RI/FS

The Respondent shall describe the background of the Site, its history and current condition and outline the purpose and need for remedial investigation of the Site. Data gathered during previous investigations, site inspections and other relevant activities shall be used. Previous investigations shall be summarized and referenced. This information shall be documented in the RI/FS Work Plan (Task 2.A.).

A. Site Background/Site History

The Respondent shall review and analyze all existing site background information and will conduct a site visit to assist in planning the scope of the RI/FS.

1. Collect and analyze existing data and document the need for additional data

Before planning RI/FS activities, all existing site data will be thoroughly compiled and reviewed by the Respondent. Specifically, this will include presently available data relating to the varieties and quantities of hazardous, industrial and/or other wastes at the Site, and past disposal practices. This will also include results from any previous sampling events that may have been conducted. The Site background may reference applicable existing reports. The Respondent shall provide, at a minimum, the following:

- a. Map(s) depicting property lines, topography and surface drainage, all known active or past treatment, storage or disposal areas, all known past and present product and waste underground storage tanks and associated piping, surrounding land use and location of wells;
- b. A history and description of ownership and operation;
- c. A summary of past and present permits requested and/or received;
- d. A summary of known or suspected source areas; and
- e. A summary of any previous response action conducted by state, local, federal or private parties.

The Respondent shall refer to Table 2-1 of the RI/FS Guidance for a comprehensive list of data collection information sources. This information will be utilized in determining additional data needed to characterize the Site, better define potential applicable requirements, and develop a range of preliminarily identified remedial alternatives. Data Quality Objectives (DQOs) will be established subject to Ohio EPA approval which specify the usefulness of existing data. Decisions on the necessary data and DQOs will be made by the Ohio EPA.

The Respondent shall provide an annotated bibliography of existing reports for the Site, including reports relevant to the RI/FS.

2. Conduct Site Visit

The Respondent shall conduct a site visit during the project scoping phase to assist in developing a conceptual understanding of sources and areas of contamination as well as potential exposure pathways and receptors at the site. During the site visit the Respondent shall observe the Site's physiography, hydrology, geology, and demographics, as well as natural resources, ecological and cultural features and receptors. This information will be utilized to better scope the project and to determine the extent of additional data necessary to characterize the site, better define potentially applicable requirements and narrow the range of preliminarily identified remedial alternatives.

B. Implementation of Interim/Emergency Actions.

1. The Respondent's report shall document any interim or emergency action which were or are being undertaken at the Site. This shall include:

- a. Objectives of the interim or emergency actions: how the action has mitigated or is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long term remedial action at the Site;
- b. Design, construction, operation and maintenance requirements;
- c. Schedules for design, construction and monitoring; and
- d. Schedule for progress reports.

Respondent shall submit a report to the Ohio EPA documenting the results of Tasks 1.A.1., 1.A.2. and 1.B.1. as part of the of the RI/FS Work Plan.

TASK 2 -- RI/FS WORK PLAN REQUIREMENTS

At the conclusion of the scoping phase, the Respondent will submit an RI/FS work plan, a field sampling plan, a Quality Assurance Project Plan (QAPP), and a site health and safety plan. The RI/FS work plan, field sampling plan, and QAPP must be reviewed and approved by Ohio EPA prior to the initiation of field activities.

A. RI/FS Work Plan

A work plan documenting the decisions and evaluations completed during the scoping process will be submitted to Ohio EPA for review and approval. The work plan should be developed in conjunction with the QAPP, field sampling plan and the site health and safety plan, although each plan may be delivered under separate cover. The RI/FS Work Plan will also include a comprehensive description of the work to be performed as outlined in this SOW, including the methodologies to be utilized, as well as a corresponding schedule for completion. In addition, the work plan must include the rationale for performing the required activities.

In the RI/FS Work Plan, the Respondent shall present the justification for the proposed omission of any tasks of this SOW because of work that has already been performed or work that is not appropriate to the Site.

The RI/FS Work Plan will present a statement of the real or potential problem(s) posed by the Site and the objectives of the RI/FS. Furthermore, the plan will include a site background summary setting forth the Site description including the geographic location of the Site, and to the extent possible, a description of the Site's physiography, hydrology, geology, demographics, ecological, cultural and natural resource features; a synopsis of the site history and a description of previous responses that have been conducted at the site by local, state, federal, or private parties; a summary of the existing data in terms of physical and chemical characteristics of the contaminants identified, and their distribution among the environmental media at the site.

In addition, the plan will include a description of the site management strategy developed during scoping and data needs for evaluation of remedial alternatives. The plan will reflect coordination with treatability study requirements. The RI/FS Work Plan shall provide sufficient information for the Ohio EPA to identify applicable or relevant and appropriate Federal and state requirements (chemical-specific, location-specific and action-specific).

The RI/FS work plan shall provide a detailed description of the tasks to be performed, information needed for each task (e.g., for human health and environmental risk evaluation), information to be produced during and at the conclusion of each task, and a description of the work products that will be submitted to the Ohio EPA. This includes the deliverables set forth in the remainder of this statement of work: a schedule for each of the required activities; the conceptual site model for and the human health baseline risk assessment; the conceptual site model for and the environmental baseline risk assessment; the RI report; the FS report and required interim deliverables; monthly reports to the Ohio EPA; and meetings and presentations to the Ohio EPA at the conclusion of each major phase of the RI/FS.

Because of the unknown nature of the Site and iterative nature of the RI/FS, additional data requirements and analyses may be identified throughout the process. The Respondent will submit a technical memorandum documenting the need for additional data, and identifying the DQOs whenever such requirements are identified. In any event, the Respondent is responsible for fulfilling additional data and analysis needs identified by the Ohio EPA consistent with the purposes and objectives of this RI/FS.

B. Quality Assurance Project Plan

The Respondent shall prepare a plan to document all monitoring and investigation procedures: sampling, field measurements, sample analysis, toxicity testing, bioassays, and all modeling performed during the investigation to characterize the environmental setting, source(s), contamination, and human and biological receptors to ensure that all information, data and resulting decisions are technically sound, statistically valid and properly documented. This plan shall comport with Ohio EPA's Guidelines and Specifications for Preparing Quality Assurance Projects Plans, policy number DERR-00-RR-008. As required by Section VIII, Paragraph C, of this Order, Respondent shall schedule a meeting with this Agency to discuss the requirements of this plan.

1. Data Collection Strategy

The strategy section of the (QAPP) shall include but not be limited to the following:

- a. Description of the types and intended uses for the data, relevance to remediation or restoration goals, and the necessary level of precision, accuracy, and statistical validity for these intended uses;
- b. Description of methods and procedures to be used to assess the precision, accuracy and completeness of the measurement data;
- c. Description of the rationale used to assure that the data accurately and precisely represent a characteristic of a population, variation of physical or chemical parameters throughout the Site, a process condition or an environmental condition. Factors which shall be considered and discussed include, but are not limited to:
 - i) Environmental conditions at the time of sampling;
 - ii) Sampling design (including number, location and distribution);
 - iii) Representativeness of selected media, exposure pathways, or receptors; and
 - iv) Representativeness of selected analytical parameters.
 - v) Representativeness of testing procedures and conditions; and
 - vi) Independence of background or baseline from site influences.

- d. Description of the measures to be taken to assure that the following data sets can be compared quantitatively or qualitatively to each other:
 - i) RI data collected by the Respondent over some time period;
 - ii) RI data generated by an outside laboratory or consultant employed by the Respondent versus data collected by the Respondent, and;
 - iii) Data generated by separate consultants or laboratories over some time period not necessarily related to the RI effort.
 - iv) Data generated by Ohio EPA or by an outside laboratory or consultant employed by Ohio EPA;
- e. Details relating to the schedule and information to be provided in quality assurance reports. These reports should include but not be limited to:
 - i) Periodic assessment of measurement data accuracy, precision and completeness;
 - ii) Results of performance audits;
 - iii) Results of system audits;
 - iv) Significant quality assurance problems and recommended solutions; and
 - v) Resolutions of previously stated problems.

2. Sample Analysis

The Sample Analysis section of the Quality Assurance Project Plan shall specify the following:

- a. Chain-of-custody procedures, including:
 - i) Identification of a responsible party to act as sample custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipment and verify the data entered onto the sample custody records;
 - ii) Provision for a laboratory sample custody log consisting of serially numbered lab-tracking report sheets; and

- iii) Specification of laboratory sample custody procedures for sample handling, storage and dispersment for analysis.
- b. Sample storage procedures and storage times;
- c. Sample preparation methods;
- d. Analytical procedures, including:
 - i) Scope and application of the procedure;
 - ii) Sample matrix;
 - iii) Potential interferences;
 - iv) Precision and accuracy of the methodology;
 - v) Method detection limits;
 - vi) Special analytical services required to ensure contract required detection limits do not exceed known toxicity criteria; and
 - vii) Verification and reporting of tentatively identified compounds.
- e. Calibration procedures and frequency;
- f. Data reduction, validation and reporting;
- g. Internal quality control checks, laboratory performance and systems audits and frequency, including:
 - i) Method blank(s);
 - ii) Laboratory control sample(s);
 - iii) Calibration check sample(s);
 - iv) Replicate sample(s);
 - v) Matrix-spiked sample(s);
 - vi) "Blind" quality control sample(s);
 - vii) Control charts;

- viii) Surrogate samples;
- ix) Zero and span gases; and
- x) Reagent quality control checks.

- h. Preventative maintenance procedures and schedules;
- i. Corrective action (for laboratory problems); and
- j. Turnaround time.

3. Modeling

The Modeling section of the Quality Assurance Project Plan shall apply to all models used to predict or describe fate, transport or transformation of contaminants in the environment and shall discuss:

- a. Model assumptions and operating conditions;
- b. Input parameters; and
- c. Verification and calibration procedures.

4. In Situ or Laboratory Toxicity Tests

The Toxicity Test section of the Quality Assurance Project Plan shall apply to all tests or bioassays used to predict or describe impacts of contaminants on a population, community, or ecosystem level.

5. Data Record

The QAPP shall also provide the format to be used to present the raw data and the conclusions of the investigation, as described in a, b, and c below:

- a. The data record shall include the following:
 - i) Unique sample or field measurement code;
 - ii) Sampling or field measurement location and sample or measurement type;
 - iii) Sampling or field measurement raw data;
 - iv) Laboratory analysis ID number;

- v) Property or component measured; and
 - vi) Result of analysis (e.g., concentration).
- b. Tabular Displays

The following data shall be presented in tabular displays:

- i) Unsorted (raw) data;
 - ii) Results for each medium, organism, or for each constituent measured;
 - iii) Data reduction for statistical analysis;
 - iv) Sorting of data by potential stratification factors (e.g., location, soil layer, topography, vegetation form);
 - v) Summary data (i.e., mean, standard deviation, min/max values, and sample number); and
 - vi) Comparisons with background or reference data.
- c. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.):

- i) Display sampling locations and sampling grid;
- ii) Indicate boundaries of sampling area, and areas where more data are required;
- iii) Display levels of contamination at each sampling location or location from which organism was taken;
- iv) Display geographical extent of contamination;
- v) Display contamination levels, averages and maxima;
- vi) Illustrate changes in concentration in relation to distance from the source, time, depth or other parameters;
- vii) Indicate features affecting intramedia transport and show potential receptors;

- viii. Compare nature and extent of contamination with results of ecological or biological sampling or measurements; and
- ix) Display comparisons with background or reference analyses or measurements.

C. Field Sampling Plan

1. Sampling

The Sampling section of the Field Sampling Plan shall discuss:

- a. Sufficient preliminary sampling to ensure the proper planning of b through o below;
- b. Selecting appropriate sampling locations, depths, vegetation strata, organism age, etc. and documenting relevance of sample for intended biological toxicity tests or analyses;
- c. Providing a sufficient number of samples to meet statistical or other data useability objectives;
- d. Measuring all necessary ancillary data such as ambient conditions, baseline monitoring, etc.;
- e. Determining environmental conditions under which sampling should be conducted;
- f. Determining which media, pathways, or receptors are to be sampled (e.g., ground water, air, soil, sediment, biota, etc.);
- g. Determining which parameters are to be measured and where;
- h. Selecting the frequency and length of sampling period;
- i. Selecting the sample design (e.g., composites, grabs, random, repeated, etc.);
- j. Selecting the number, location, media or organisms for determining background conditions or reference conditions (refer to Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part A), Interim Final, EPA/540/1-89/002, December 1989);

- k. Measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points;
- l. Documenting field sampling operations and procedures, including:
 - i) Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters and adsorbing reagents);
 - ii) Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;
 - iii) Documentation of specific sample preservation method;
 - iv) Calibration of field devices;
 - v) Collection of replicate and field duplicate samples;
 - vi) Submission of field-biased and equipment blanks, where appropriate;
 - vii) Potential interferences present at the site or facility;
 - viii) Construction materials and techniques associated with monitoring wells and piezometers;
 - ix) Field equipment listing and sample containers;
 - x) Sampling order; and
 - xi) Decontamination procedures.
- m. Selecting appropriate sample containers;
- n. Sample preservation; and
- o. Chain-of-custody, including:
 - i) Standardized field tracking reporting forms to establish sample custody in the field prior to and during shipment;
 - ii) Sample sealing, storing and shipping procedures to protect the integrity of the sample; and,
 - iii) Pre-prepared sample labels containing all information necessary for effective sample tracking.

2. Field Measurements

The Field Measurements section of the Field Sampling Plan shall discuss:

- a. Selecting appropriate field measurement locations, depths, organism age etc.;
- b. Providing a sufficient number of field measurements that meet statistical or data useability objectives;
- c. Measuring all necessary ancillary data such as ambient or baseline environmental conditions;
- d. Determining conditions under which field measurement should be conducted;
- e. Determining which media, pathways, or receptors are to be addressed by appropriate field measurements (e.g., ground water, air, soil, sediment, biota, etc.);
- f. Determining which physical, chemical, or biological parameters are to be measured and where;
- g. Selecting the frequency and duration of field measurement; and
- h. Documenting field measurement operations and procedures, including:
 - i) Procedures and forms for recording raw data and the exact location, time and Site specific considerations associated with the data acquisition;
 - ii) Calibration of field devices;
 - iii) Collection of replicate measurements;
 - iv) Submission of field-biased blanks, where appropriate;
 - v) Potential interferences present at the Site;
 - vi) Construction materials and techniques associated with monitoring wells and piezometers used to collect field data;

- vii) Field equipment listing;
- viii) Order in which field measurements were made; and
- ix) Decontamination procedures; and
- i. Selecting the number, location, media, and organisms for determining background or reference conditions.

D. Health and Safety Plan.

The Respondent shall develop a Health and Safety plan to protect the health and safety of personnel involved in the site investigations and the surrounding community.

1. Major elements of the Health and Safety Plan shall include:
 - a. Facility or site description including availability of resources such as roads, water supply, electricity and telephone service;
 - b. Description of the known hazards and an evaluation of the risks associated with the incident and with each activity conducted;
 - c. Listing of key personnel (including the site safety and health officer) and alternates responsible for site safety, response operations, and for protection of public health;
 - d. Delineation of work area, including a map;
 - e. Description of levels of protection to be worn by personnel in the work area;
 - f. Description of the medical monitoring program for on-site responders;
 - g. Description of standard operating procedures established to assure the proper use and maintenance of personal protective equipment;
 - h. The establishment of procedures to control site access;
 - i. Description of decontamination procedures for personnel and equipment;
 - j. Establishment of site emergency procedures;

- k. Availability of emergency medical care for injuries and toxicological problems;
 - l. Description of requirements for an environmental monitoring program. (This should include a description of the frequency and type of air and personnel monitoring, environmental sampling techniques and a description of the calibration and maintenance of the instrumentation used.);
 - m. Specification of any routine and special training required for responders; and
 - n. Establishment of procedures for protecting workers from weather-related problems.
2. The Health and Safety Plan shall be consistent with:
- a. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);
 - b. Section 111(c)(6) of CERCLA;
 - c. EPA Order 1440.3 -- Respiratory Protection;
 - d. EPA Order 1440.2 -- Health and Safety Requirements for Employees Engaged in Field Activities;
 - e. EPA Occupational Health and Safety Manual;
 - f. EPA Interim Standard Operating Safety Procedures and other EPA guidance as developed by EPA;
 - g. OSHA regulations particularly in 29 CFR 1910 and 1926;
 - h. State and local regulations; and
 - i. Site or facility conditions.

The Safety Plan should identify problems or hazards that may be encountered and their solution. Safety procedures to be followed to protect third parties, such as visitors or the surrounding community, should also be provided.

TASK 3 -- INTERIM ACTIONS

- A. At any time during the Remedial Investigation, the Respondent may propose to conduct or the Ohio EPA may require that the Respondent conduct an interim remedial action(s). Any interim remedial action proposed by the Respondent for the Site must be approved by the Ohio EPA prior to implementation. The following factors shall be considered in determining the appropriateness of an interim remedial action:
1. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous wastes or substances;
 2. Actual or potential contamination of drinking water supplies or sensitive ecosystems;
 3. Hazardous waste or substances in drums, barrels, tanks or other bulk storage containers that may pose a threat of release;
 4. High levels of hazardous waste or substances in soils largely at or near the surface that may migrate;
 5. Weather conditions that may cause hazardous waste or substances to migrate or be released;
 6. Threat of fire or explosion; and
 7. Other situations or factors that may pose threats to public health, welfare or the environment.
- B. The Respondent shall develop and submit for approval an Interim Action Work Plan that includes, but is not limited to, the following:
1. A discussion of the technical factors of importance for implementing the Interim Action;
 2. A justification for selection of the preferred action and/or system modification based on its ability to meet the interim action criteria of preventing, minimizing or mitigating a substantial threat to the public health or the environment;
 3. Treatment, storage or disposal of contaminated media in a manner that complies with federal and state laws, requirements and guidance documents adopted thereunder. Respondent shall obtain any permits necessary for implementation of the Interim Action. Ohio EPA shall consider, in a timely manner, such permit applications which Respondent may be required to submit pursuant to the Interim Action Work Plan;

4. A schedule of tasks, length of tasks and completion times, including any permits, permits-to-install and permits-to-operate, according to calendar days;
 5. A monitoring strategy to determine the effectiveness of the Interim Action;
 6. A Quality Assurance Project Plan (QAPP) for the Interim Action;
 7. a Health and Safety Plan (HASP) for the Interim Action.
- C. Within twenty (20) calendar days following Ohio EPA approval of the Interim Action Work Plan, Respondent shall commence implementation of the work as approved and in accordance with the schedule contained therein.
- D. Progress on the Interim Action shall be reported in the Monthly Progress Report per Task 11.

TASK 4 -- COMMUNITY RELATIONS

This task shall be completed by the Ohio EPA.

TASK 5 -- REMEDIAL INVESTIGATION

The Respondent shall conduct those investigations necessary to: characterize the site (Environmental Setting); define the source (Source Characterization); define the degree and extent of contamination (Contamination Characterization and Ecological Assessment); and identify actual or potential receptors (Ecological and Human Risk Assessment).

The investigations should result in data of adequate technical quality to support the development of the Human Health Baseline Risk Assessment and the Ecological Risk Assessment and the evaluation of remedial action alternatives of the Feasibility Study.

Remedial Investigation activities shall follow the plans set forth in Task 2. All sampling, analyses, and measurements shall be conducted in accordance with the QAPP. All sampling and measurement locations shall be documented in a log and identified on a detailed site map.

A. Environmental Setting

The Respondent shall collect information to supplement and verify existing information on the environmental setting at the site as well as the environmental setting adjacent to and surrounding the Site. The Respondent shall characterize the following:

1. Regional Hydrogeology

The Respondent shall conduct a program to evaluate the regional hydrogeologic characteristics surrounding the facility. Regional information can be obtained as described in Task 1. This shall include but not be limited to:

- a. Depth to bedrock and lithology;
- b. Characteristics of major stratigraphic units and the depositional environment;
- c. Identification of regional aquifer(s);

- d. Identification of all residential, municipal, industrial and agricultural wells within a four (4) mile radius of the Site. Include any available information such as well logs, construction details, average yield and chemical analyses;
- e. Direction of ground water flow in the regional aquifer(s);
- f. Identification and characterization of recharge and discharge areas, with amount of recharge and discharge;
- g. Description of regional geomorphology, including locations of surface water bodies and floodways, etc. This description should include an analysis of any topographic features that may influence the ground water flow system; and
- h. Description of structural features such as jointing, faulting and folding.

2. Site Hydrogeology and Soil Characteristics

The Respondent shall conduct a program to evaluate site-specific hydrogeologic characteristics and soil characteristics at the Site. This description shall be based on data collected from bore holes, piezometers, laboratory and field tests. The description shall include:

- a. An accurate classification and description of the consolidated and unconsolidated stratigraphic units beneath the Site. This shall include:
 - i) Hydraulic conductivity (vertical and horizontal);
 - ii) Porosity, effective porosity, and bulk density;
 - iii) Rock and soil (ASTM 2488 and 2487) classification;
 - iv) Grain size distribution (sieve and hydrometer) curves;
 - v) Thickness;
 - vi) Lateral extent;
 - vii) Moisture content;

- viii) The attenuation capacity and mechanisms of attenuation of the natural earth material and/or fill (i.e., ion exchange capacity, base saturation, organic carbon content, mineral content, soil sorptive capacity, storage capacity);
- ix) Soil Ph;
- b. The Respondent shall conduct a program to characterize the near surface soil and rock units. This shall include:
 - i) SCS soil classification;
 - ii) Surface soil distribution;
 - iii) Infiltration;
 - iv) Evapotranspiration;
- c. A discussion of the local occurrence of ground water including:
 - i) Identification of all aquifer systems, including depth from the surface and lateral and vertical extent. (Aquifer system means one or more geologic unit or formation that is wholly or partly saturated with water and is able to store, transmit and yield significant amounts of water to wells or springs.);
 - ii) Identification of all significant saturated zones above the aquifer systems;
 - iii) Depth to the water table;
 - iv) Ground water flow direction and rates in the aquifers and all strata above the aquifers;
 - v) Effects of stratification on saturated and unsaturated flow;
 - vi) Description of the interconnection between the saturated zones and the aquifers, surface water, seeps and springs;

- vii) Description of recharge and discharge areas within the site boundaries. This shall include any relationship between ground water and springs, streams and other surface water features;
 - viii) Temporal fluctuations (i.e., seasonal and man-made) in ground water levels and their effects on ground water flow direction; and
 - ix) Identification of zones of high permeability that may act as a migration route for contaminants.
- d. Hydrogeologic cross sections showing the extent (depth, thickness and lateral extent) of each hydrogeologic unit shall be developed. Cross sections shall be developed in various orientations across the Site (e.g., in the direction of ground water flow and orthogonal to ground water flow). At a minimum the following shall be identified:
- i) Structures such as zones of fracturing or channeling likely to influence contaminant migration in the consolidated or unconsolidated deposits;
 - ii) Zones of higher permeability, such as sand and gravel deposits, that might direct the flow of contaminants;
 - iii) Zones of low permeability that may restrict and/or attenuate the flow of contaminants; and
 - iv) Water-bearing zones above the confining layer that may serve as pathways for contaminant migration including perched zones of saturation.
- e. Based on data obtained from ground water monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:
- i) Water level contour and/or potentiometric surface maps;
 - ii) Hydraulic cross sections showing vertical gradients;
 - iii) Flow nets, including the vertical and horizontal components of flow and the interconnection between waterbearing strata; and

- iv) Any temporal changes in hydraulic gradients and flow directions due, for example, to seasonal or man-made influences.
- f. A description of man-made influences that may affect the hydrogeology of the Site, identifying:
 - i) Active and inactive water supply and production wells with appropriate pumping schedules; and
 - ii) Man-made structures such as pipelines, french drains, ditches, unlined and lined ponds, lagoons, septic tanks, NPDES permitted outfalls, retention areas and utility lines.
- g. An area-specific description of the geomorphology at the Site. At a minimum this shall include;
 - i) An analysis of any topographic feature that may influence the ground water flow system;
 - ii) A surface topography map depicting (at a minimum) streams, wetlands, topographic depressions and springs. The topographic map shall be constructed by a qualified professional and shall provide contour intervals at a level of detail appropriate for the site specific hydrogeologic investigation (e.g., two-foot intervals). The map shall depict the location of all borings, monitoring wells and cross sections.
- h. An area-specific description of the structural geology at the Site;
- i. The RI report shall document the methods and procedures used to gather and evaluate the hydrogeologic data. These methods and procedures shall be in accordance with Ohio EPA and U.S. EPA guidance. This may include but is not limited to:
 - i) The drilling and soil sampling methods used in characterizing the soil and hydrogeologic characteristics of the Site (including all boring logs and raw data);
 - ii) The analytical procedures and methods used to characterize the soil and rock materials obtained from the borings and/or test pits;

- iii) The methods, equipment and procedures used to define the aquifer systems and all significant zones of saturation above the uppermost aquifer system including:
 - 1) Well and piezometer location, depth, construction and installation specifications (including diagrams);
 - 2) Water level measurements and procedures;
 - 3) Ground water seepage observations during drilling; and
 - 4) Pumping tests and slug tests (including type, description and rationale for its use, raw data and method of interpreting the results).
- iv) A description, rationale and raw data of indirect methods such as soil survey, geophysical and modeling. (These methods can be used to infer ground water characteristics and support or guide direct methods. However, no site remedial investigation can be based strictly on these methods.)

3. Surface Water and Sediment

The Respondent shall conduct a program to characterize any surface water bodies in the vicinity of the Site. Such characterization shall include, but not be limited to, the following activities and information:

- a. Description of the temporal and permanent surface water bodies including:
 - i) For lakes and estuaries: location, elevation, surface area, inflow, outflow, depth, temperature stratification and volume;
 - ii) For impoundments: location, elevation, surface area, depth, volume, freeboard and purpose of impoundment;
 - iii) For streams, ditches, drains, swamps and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations and flood zones (i.e., 50 and 100 year events);
 - iv) Drainage patterns;
 - v) Evapotranspiration; and
 - vi) Any other known discharges including those permitted by NPDES.

- b. Description of the chemistry of the surface water and sediments. This includes determining the Ph, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients, chemical oxygen demand, total and dissolved organic carbon, specific contaminant concentrations, etc.
- c. Description of sediment characteristics including:
 - i) Deposition area, patterns, and rates;
 - ii) Thickness profile; and
 - iii) Physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange capacity, Ph, etc.)

4. Air

The Respondent shall provide information characterizing the climate in the vicinity of the Site in general, and at the time of the investigation(s). Such information shall include, but not be limited to:

- a. A description of the following parameters:
 - i) Annual and monthly rainfall averages;
 - ii) Monthly temperature averages and extremes;
 - iii) Wind speed and direction;
 - iv) Relative humidity/dew point;
 - v) Atmospheric pressure;
 - vi) Evaporation data;
 - vii) Development of inversions; and
 - viii) Climate extremes that have been known to occur in the vicinity of the facility, including frequency of occurrence.

- b. A description of topographic and man-made features which affect air flow or emission patterns, including:
 - i) Ridges, hills or mountain areas;
 - ii) Canyons or valleys;
 - iii) Surface water bodies (e.g. rivers, lakes, bays, etc.);
 - iv) Wind breaks and forests; and
 - v) Buildings; and
 - vi) Any other features that may affect air flow or emission patterns.

B. Source Characterization

The Respondent shall collect analytical data to completely characterize the wastes and the areas where wastes have been placed, collected, came to be located or removed including: type (hazardous, solid, residential, industrial, etc.); quantity; physical form; disposition (containment or nature of deposits); and Site characteristics affecting release (e.g., Site security and engineering barriers). Data shall include all information referenced in the Remedial Investigation Work Plan (Task 2). This shall include quantification of the following specific characteristics, at each source area:

- 1. Unit/Disposal Area characteristics:
 - a. Location of unit/disposal area;
 - b. Type of unit/disposal area;
 - c. Design features;
 - d. Operating practices (past and present);
 - e. Period of operation;
 - f. Age of unit/disposal area;
 - g. General physical conditions; and
 - h. Method used to close the unit/disposal area.
- 2. Waste Characteristics:

- a. Type of waste placed in the unit;
 - i) Hazardous classification (e.g., listed, flammable, reactive, corrosive, oxidizing or reducing agent);
 - ii) Quantity; and
 - iii) Chemical composition.

- b. Physical and chemical characteristics;
 - i) Physical form (solid, liquid, gas);
 - ii) Physical description (e.g., powder, oily sludge);
 - iii) Temperature;
 - iv) Ph;
 - v) General chemical class (e.g., acid, base, solvent);
 - vi) Molecular weight;
 - vii) Density;
 - viii) Boiling point;
 - ix) Viscosity;
 - x) Solubility in water;
 - xi) Cohesiveness of the wastes;
 - xii) Vapor pressure; and
 - xiii) Flash point.

- c. Migration and dispersal characteristics of the waste;
 - i) Sorption;
 - ii) Biodegradability, bioconcentration, biotransformation;
 - iii) Photodegradation rates;

- iv) Hydrolysis rates;
- v) Chemical transformations;
- vi) Chemical interactions; and
- vii) Products of all such reactions or processes.

The Respondent shall document the procedures used in making the above determinations.

C. Contamination Characterization

The respondent shall collect analytical data on air, ground water, soils, surface water, sediment and subsurface gas contamination in the vicinity of the Site. This data shall be sufficient to define the extent, origin, direction and rate of movement of contaminants. Data shall include all information referenced in the Remedial Investigation Work Plan (Task 2). The Respondent shall address the following types of contamination at the Site:

1. Ground Water Contamination

The Respondent shall conduct a ground water investigation to characterize the nature and extent of any plumes of contamination at the Site. The investigation shall include a description and quantification of ground water quality in the aquifer systems and all significant zones of saturation or permeable zones that may act as pathways for contaminant migration. This investigation shall at a minimum provide the following information:

- a. A description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the Site;
- b. The horizontal and vertical direction of contamination movement;
- c. The velocity of contaminant movement;
- d. The horizontal and vertical concentration profiles of Appendix VIII constituents in the plume(s);
- e. An evaluation of site specific factors influencing the plume movement;
- f. An extrapolation of future contaminant movement; and

- g. An investigation to characterize the nature and extent of contamination of residential, municipal, industrial and agricultural wells within the vicinity of the Site.

The Respondent shall document the procedures used in making the above determinations (e.g., well design, well construction, geophysics, modeling, etc.). These procedures shall comport with appropriate U.S. EPA and Ohio EPA guidance.

2. Soil Contamination

The Respondent shall conduct an investigation to characterize the nature and extent of contamination of the soil and rock units in the vicinity of the contaminant release. The investigation shall include the following information:

- a. A description of the vertical and horizontal extent and pattern of contamination;
- b. A description of contaminant and soil chemical physical, and biological properties within the contaminant source area and plume. This includes a site specific discussion of contaminant solubility, speciation, adsorption, leachability, exchange capacity, biodegradation, hydrolysis, photolysis, oxidation and other factors that might affect contamination migration and transformation;
- c. Specific contaminant concentrations;
- d. The velocity and direction of contaminant movement; and
- e. An extrapolation of future contaminant movement.

The Respondent shall document the procedures used in making the above determinations.

3. Surface Water and Sediment Contamination

The Respondent shall conduct an investigation to characterize the nature and extent of contamination in surface water bodies and sediment resulting from contaminant releases at the Site. The investigation shall include, but not be limited to, the following information:

- a. A description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the Site, and the extent of contamination in underlying sediments;
- b. The horizontal and vertical direction of contaminant movement in surface water and sediment;
- c. The contaminant velocity;
- d. An evaluation of the physical, biological and chemical factors influencing contaminant movement;
- e. An extrapolation of future contaminant movement; and
- f. A description of the chemistry of the contaminated surface waters and sediments. This includes determining the Ph, total dissolved solids, specific contaminant concentrations, etc.

Respondent shall document the procedures used in making the above determinations.

4. Air Contamination

The Respondent shall conduct an investigation to characterize the nature and extent of particulate and gaseous contaminants released into the atmosphere. The investigation shall provide the following information:

- a. A description of the horizontal and vertical direction and velocity of contaminant movement;
- b. The rate and amount of the release;
- c. Chemical and physical nature of contaminated particulates including respirable portion, source emission rates, contaminant concentrations in respirable portions;

- d. Existing or potential human or biological receptors, of air contaminants, including respirable contaminant concentrations at known or potential receptors; and
- e. The chemical and physical composition of the contaminant(s) released, including vertical and horizontal concentration profiles; and
- f. Environmental factors that alter or mitigate fate and transport of contaminants in the atmosphere.

The Respondent shall document the procedures used in making the above determinations.

5. Subsurface Gas Contamination

The Respondent shall conduct an investigation to characterize the nature and extent of subsurface gases emitted from buried hazardous, industrial and/or other waste and hazardous constituents in the soil and/or ground water. This investigation shall include the following information:

- a. A description of the horizontal and vertical extent of subsurface gases migration;
- b. The chemical composition of the gases being emitted from the subsurface or surface;
- c. The rate, amount, and density of the gases being emitted; and
- d. Horizontal and vertical concentration profiles of the subsurface gases emitted.

The Respondent shall document the procedures used in making the above determinations.

D. Ecological Assessment

The Respondent shall conduct an investigation to characterize any adverse effects to flora and fauna, at the population, community or ecosystem level, that is or has been caused or influenced by contamination from the facility. The data from this investigation shall be collected in a manner that is compatible and concurrent with the other sections of Task 4. The activities described for this section may be performed iteratively and/or in a phased approach as more data is gathered during other portions of the remedial investigation. Therefore, parts of the work plans(s) for this

section may be submitted as separate deliverables from Task 2.C., Phase I Ecological Assessment.

1. Site Characterization

Based on existing data and limited field work, the respondent shall consider the following:

- a. See Task 1.A. (Site Background/Site History);
- b. Identification of potential and probable ecological receptors including threatened and endangered species, unique and sensitive habitats or resources, etc.;
- c. Identification of potential or probable exposure points for ecological receptors;
- d. Document known or suspected effects of site contaminants to biota; and
- e. Additional data needed for site characterization and the rationale for its necessity.

2. Additional Site Characterization (Phase Ib Ecological Assessment)

Based on evaluations from Task 5.D.1. above, if existing information is insufficient to determine the extent and magnitude of adverse impacts and whether a Phase II Ecological Assessment is warranted, the Respondent shall develop work plans for and implement the following in keeping with the requirements of Tasks 2.B. and 2.C.:

- a. Identification and evaluation of habitats that are or may be exposed to contamination;
- b. Semiquantitative surveys of flora and fauna that are or may be exposed to contamination, which shall include, but not be limited to:
 - i) All vegetative strata;
 - ii) Flora and fauna in all contaminated media;

- iii) Population parameters (e.g., density, frequency, age distribution); and
 - iv) Community parameters (e.g., diversity, structure, stability).
- c. Identification of background or reference area for each exposed population, community or ecosystem and completion of surveys for comparison to Tasks 5.D.2.a. and 5.D.2.b. above; and
 - d. Sampling of media or biota for accumulation or intake studies and toxicity tests to determine the extent of toxicity as related to areas of known or potential contamination.
3. Initial Toxicity Assessment (to be performed in conjunction with 5.D.1. and 5.D.2. above, as applicable)

The respondent shall perform a literature review of information regarding the toxicity, fate and transport characteristics, ecological effects, and likely biological receptors for the contaminants of concern.

4. Preliminary Ecological Assessment

The respondent shall combine the results of Tasks 5.D.1. to 5.D.3., above in order to define or evaluate the following on a site-specific basis:

- a. Initial identification of exposure pathways and ecological receptors;
- b. The existence of or potential for current and future adverse effects to occur on a population, community or ecosystems level; and
- c. Determine if the results of the Phase I Ecological Assessment indicate the need for further ecological studies.

5. Phase II Ecological Assessment

Respondent shall prepare and implement, following Ohio EPA approval, a detailed work plan for further site investigations that shall be compatible with requirements listed in 4.D.3, but also include the following:

- a. Study objectives and relevance to risk assessment objectives;
- b. Identification of ecological measurement endpoints, assessment endpoints, and endpoint selection criteria;
- c. Semiquantitative and quantitative surveys of flora and fauna;

- d. Chemical sampling in potentially exposed habitats and reference sites;
- e. Laboratory and in situ toxicity testing; and
- f. Tissue analyses.

6. *Ecological Assessment Report*

The respondent shall prepare a report including all results from Tasks 5.D.1. to 5.D.5. above for incorporation into the Environmental Risk Assessment (see Task 6).

Special Note: Because seasonal effects can impart a profound influence on the results of biological or ecological sampling, the Ohio EPA requires that all sampling or testing of flora and fauna shall take place between April 1 and October 30 unless otherwise approved by the Site Coordinator.

E. Potential Receptor Identification

The Respondent shall collect data describing the human populations, plant and animal populations, communities, and ecosystems that are or may be susceptible to contaminant exposure from the Site. Chemical analysis of biological samples or data on observable effects in ecosystems may be needed to properly identify biological receptors. Some of this information shall be obtained from information gathered during the Ecological Assessment (see Task 5.D.). The following characteristics shall be identified:

- 1. Local current and potential future uses of ground water:
 - a. Type of use (e.g., municipal or residential, agricultural, domestic/non-potable and industrial, nonagricultural use by flora and fauna); and
 - b. Location of ground water users including wells and discharge areas.
- 2. Local current and potential future uses of surface waters in the vicinity of the Site:

- a. Type of use (e.g., municipal or residential, agricultural, domestic/non-potable and industrial, nonagricultural use by flora and fauna); and
 - b. Location of surface water users or use areas.
3. Use of or access by humans or biota to the site or facility and adjacent lands, including but not limited to:
- a. Recreational;
 - b. Hunting;
 - c. Residential;
 - d. Commercial;
 - e. Zoning;
 - f. Nonagricultural use by flora and fauna; and
 - g. Future land use or access.
4. A demographic profile of the people who use or who have access to the facility and adjacent land including, but not limited to age, sex and sensitive subgroups.

F. RI Report

The Respondent shall prepare a Remedial Investigation (RI) Report to present Task 5, above, and Tasks 6 and 7, described below. The RI Report shall be developed in draft form for Ohio review and approval (refer to Section XIV of this Order, Review of Submittals). The report shall describe the nature and extent of contamination (qualitative/quantitative) in relation to background areas indicative for the area.

TASK 6 -- HUMAN HEALTH BASELINE RISK ASSESSMENT

The Respondent shall prepare a thorough analysis and summary of all Site investigations and their results. The objective of this task will be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to adequately describe the nature and extent of contamination, actual and potential future threats to human health and/or the environment and to support the feasibility study.

The results and data from all site investigations shall be organized and presented logically so that the relationships between and among remedial investigations for all media and receptors are apparent.

A. Conceptual Site Model.

In order to expedite review and approval of the Human Risk Assessment by the Ohio EPA the Respondent shall prepare a Conceptual Site Model (CSM) prior to completing the Human Risk Assessment Report. The CSM is an interim document that shall briefly describe the following in tables or lists based on pre-existing site information and information gathered to date during the RI:

1. Goals of the assessment;
2. Types and sources of information or data that will be used in the assessment;
3. Major assumptions or limitations influencing the application of the assessment;
4. Criteria for selecting chemicals of concern;
5. Exposure pathways, scenarios, and assumptions; and
6. Other interim deliverables.

B. Human Risk Assessment Report.

Based upon the CSM, the Respondent shall prepare a risk assessment which shall contain a discussion of and present the data required in the tasks outlined below:

1. Selection of Contaminants of Concern. Respondent shall:
 - a. Evaluate data based on approved data useability procedures (e.g., laboratory or data validation qualifiers, frequency and contaminant concentrations);

- b. Further reduce the number of chemicals of concern based on chemical toxicity to human and biological receptors, number of chemicals, environmental mobility, background data, etc.; and
 - c. Develop a final list of Contaminants of Concern.
2. Estimate of Exposure Point Concentrations of Indicator Chemicals. Respondent shall:
 - a. Combine site monitoring data and environmental modeling results to:
 - i) identify exposure pathways;
 - ii) estimate exposure point concentrations; and
 - iii) compare these concentrations to requirements, standards and criteria.
3. Estimate of Chemical Intakes. Respondent shall:
 - a. Provide estimates of chemical intakes from:
 - i) Air
 - ii) Ground water
 - iii) Surface water
 - iv) Other exposure pathways (soils, food-stuffs, recreation, etc.)
 - b. Combine pathway-specific intakes to yield total oral and total inhalation routes.
4. Respondent shall evaluate critical toxicity values (i.e., numerical values describing a chemical toxicity) and review general toxicological information for the indicator chemicals.
5. Risk Characterization. Respondent shall provide a detailed characterization of the risk posed by releases of toxic chemicals from the site. The characterization shall include the following elements:

- a. Noncarcinogenic effects using the Hazard Index approach, where:

$$HI = E(1)/RL(1) + E(2)/RL(2) + \dots E(i)/RL(i)$$

$E(i)$ = Exposure level (or intake) for the (i)th toxicant

$RL(i)$ = Reference level (or intake) for the (i)th toxicant

- b. Potential carcinogenic effects using the predicted risk approach, where:

$$\text{Risk} = \text{CDI} \times \text{Carcinogenic Potency Factor}$$

CDI = Chronic Daily Intake

It is assumed that risks are additive and there is independence of action by the compounds involved.

Therefore, the following equations are used:

$$\text{Carcinogenic risk for chemical X} = [\text{CDI (inhalation)} \times \text{PF (inhalation)}] + [\text{CDI (oral)} \times \text{PF (oral)}]$$

Total carcinogenic risk = (carcinogenic risk for chemical 1 + carcinogenic risk for chemical 2 + ... + carcinogenic risk for chemical (i))

- c. Uncertainties.

Respondent shall provide a discussion of the uncertainties and assumptions made in the assessment process.

TASK 7 -- ENVIRONMENTAL BASELINE RISK ASSESSMENT.

The Respondent shall prepare a risk assessment which shall contain a discussion of present and future potential risk to ecosystems and populations exposed to contamination; information necessary to evaluate the environmental impact of proposed remedial alternatives; and information that can be utilized for the development of subsequent cleanup criteria in the tasks outlined below (note the Site Coordinator may approve combination of Tasks 6 and 7 into a single set of deliverables):

A. Conceptual Site Model.

The respondent shall prepare an interim document as defined in Task 6.A. above with emphasis on site ecology and biological receptors.

B. Environmental Risk Assessment Report

1. Briefly Describe the Site and Study Area:
 - a. Describe physical and chemical factors that impact site ecology (e.g., fate and transport of contaminants, bioavailability, etc.);
 - b. Describe past or current practices, disturbances, or stresses that impact(ed) site ecology;
 - c. Describe the areal extent of environmental assessment;
 - d. Provide a full account of ecosystems and populations potentially exposed to contamination; and
 - e. Describe current and projected land use in and around the site as relevant to site ecology.
2. Describe Contaminants and Ecological Endpoints of Concern:
 - a. (See Task 6.B.1);
 - b. Specifically consider contaminants that pose toxicity or bioaccumulation potential to biological receptors and/or are available for exposure to populations and ecosystems; and
 - c. Measurement and assessment endpoints and indicator species and rationale for their selection.
3. Characterize Exposure:
 - a. Combine site data, environmental modeling results and peer reviewed scientific literature to:
 - i) identify exposure pathways; and
 - ii) estimate exposure point concentrations by species, habitat, and exposure scenario; and
 - iii) identify site specific fate and transport processes.

- b. Verify exposure to populations or ecosystems:
 - i) show correlations between concentrations and appropriate ecological endpoints (e.g., toxicity tests and population studies) along likely exposure pathways; and
 - ii) compare data from other toxicity tests, population studies, modeled uptakes, or reference areas to show exposure has occurred.

4. Characterize Risk or Threat.

The Respondent shall discuss and reduce the uncertainty over the receptor populations, communities, or ecosystems that are or may be affected; the estimation that adverse effect(s) will or are occur(ring); the magnitude of such an effect(s); and the temporal character of such an effect(s) by:

- a. Identifying requirements, standards and criteria;
- b. Identifying relevant, peer reviewed literature toxicity values or toxicological effects where the above are lacking;
- c. Comparison of exposure concentrations to a. and b. above, using suitable uncertainty factors and considering both chronic and acute endpoints;
- d. Presenting the number and magnitude of exceedances of a and b above;
- e. Presenting supporting evidence of risk from:
 - i) contaminant concentrations in biota;
 - ii) toxicity test results;
 - iii) supporting literature;
 - iv) field surveys of receptor populations;
 - v) measures of community structure and ecosystem function;
 - vi) comparison with reference or background data or observations; and
- f. Discussing adverse or potential adverse effects under future use conditions.

5. Summary and Conclusions:

- a. Summarize effects or potential effects of contamination to biological populations, communities or ecosystems under current and future use conditions;
 - b. Describe future effects in absence of remedial action; and
 - c. Describe population, community or ecosystem characteristics that may impact the nature of remedial actions.
6. Assessment of Uncertainties and Limitations:
- a. Describe all sources of uncertainty (e.g., variance estimates, underlying model assumptions, lack of toxicity information, unexpected influences on ecological assessment, etc.), their magnitude and direction of impact on estimation of risk; and
 - b. Describe assessment limitations (e.g., deviations from intended goals, data gaps, etc.).

TASK 8-DEVELOPMENT AND SCREENING OF REMEDIAL ALTERNATIVES

The development and screening of remedial alternatives is performed to develop an appropriate range of waste management options that will be evaluated. This range of alternatives should include as appropriate, options in which treatment is used to reduce the toxicity, mobility, or volume of wastes, but varying in the types of treatment, the amount treated, and the manner in which long-term residuals or untreated wastes are managed; options involving containment with little or no treatment; options involving both treatment and containment; and a no-action alternative. The following activities will be performed by the Respondent as a function of the development and screening of remedial alternatives.

The Respondent will begin to develop and evaluate a range of appropriate waste management options that at a minimum ensure protection of human health and the environment, concurrent with the RI site characterization tasks.

A. Remedial Action Objectives

1. Develop and document remedial action objectives

The Respondent shall develop preliminary remedial objectives, specifying the contaminant(s) and media or medium of interest, exposure pathway and preliminary remediation goals that establish a range of treatment and containment alternatives to be evaluated.

These remedial action objectives shall be based on information gathered during the Remedial Investigation, pertinent Ohio EPA guidance, chemical specific ARAR's, when available other information (e.g., RfDs) and site specific factors, and shall be not inconsistent with section 300.430 of the NCP. Final remediation goals shall be determined by the Ohio EPA at or after the point the remedy is selected and are not part of this order.

In order to expedite review and approval of the Feasibility Study, the Respondent shall prepare a technical memorandum outlining the remedial action objectives.

B. Technologies Screening

1. Develop general response actions

The Respondent shall develop general response actions for each medium of interest defining containment, treatment, excavation, pumping, or other actions, singly or in combination, to satisfy the remedial action objectives.

2. Identify areas or volumes of media

The Respondent shall identify areas or volumes of media to which general response actions may apply, taking into account requirements for protectiveness as identified in the remedial action objectives. The chemical and physical characterization of the Site will also be taken into account.

3. Identify, screen, and document remedial technologies

The Respondent shall identify and evaluate technologies applicable to each general response action to eliminate those that cannot be implemented at the Site. General response actions will be refined to specify remedial technology types. Technology process options for each of the technology types will be identified either concurrent with the identification of technology types, or following the screening of the considered technology types. Process options shall be evaluated on the basis of effectiveness, implementability, and cost factors to select and retain one or, if necessary, more representative process for each technology type. Evaluation should typically focus on effectiveness factors at this stage with less effort directed at the implementability and cost factors. The technology types and process options will be documented for inclusion in the Alternatives Array Report as described below under Task 8.C.4. The reasons for eliminating technologies must be specified.

C. Alternatives Array

1. Assemble and document alternatives

The Respondent shall assemble selected representative technologies into alternatives for each affected medium or operable unit. Together, all of the alternatives will represent a range of treatment and containment combinations that will address either the Site or the operable unit as a whole. A summary of the assembled alternatives will be prepared by the Respondent for inclusion in the Alternatives Array Report described below. The reasons for eliminating alternatives during the preliminary screening process must be specified.

2. Refine alternatives

The Respondent shall refine the remedial alternatives to identify contaminant volume addressed by the proposed process and sizing of critical unit operations as necessary. Sufficient information will be collected for an adequate comparison of alternatives. Remedial action objectives for each medium will also be refined as necessary to incorporate any new risk assessment information being generated from the remedial investigation. Additionally, Ohio EPA will update ARARs as the remedial alternatives are refined.

3. Conduct and document screening evaluation of each alternative

The Respondent may perform a final screening process based on short and long term aspects of effectiveness, implementability, and relative cost. Generally, this screening process is only necessary when there are many feasible alternatives available for detailed analysis. If necessary, the screening of alternatives will be conducted to assure that only the alternatives with the most favorable composite evaluation of all factors are retained for further analysis.

As appropriate, the screening will preserve the range of treatment and containment alternatives that was initially developed. The range of remaining alternatives will include options that use treatment technologies and permanent solutions to the maximum extent practicable, and minimize media transfer. The Respondent shall prepare a summary of the results and reasoning employed in the screening, the assembly of alternatives that remain after screening. The summary will be submitted with the Alternatives Array Report as described below.

4. Alternatives Development and Screening Deliverables

In order to expedite review and approval of the Feasibility Study, the Respondent will prepare an Alternatives Array Report summarizing the work

performed in and the results of each activity described above under Task 8, including an Alternatives Array summary. These alternatives shall be modified by the Respondent, if required by Ohio EPA's comments to assure identification of a complete and appropriate range of viable alternatives to be considered in the detailed analysis. This interim deliverable will document the methods, rationale, and results of the alternatives screening process. The Respondent will refer to the U.S.EPA Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA for an outline of the report format and the required report contents. This report will become a major portion of the Feasibility Study Report to be submitted as part of Task 10.B.

Based upon the Alternatives Array Report, the Ohio EPA shall identify and provide to the Respondent ARARs for the range of alternatives presented. These ARARs may be modified by the Agency based upon the results of other tasks of this SOW.

TASK 9 -- TREATABILITY STUDY

A. Treatability Study Work Plan

1. Determining the Need for Treatability Studies

a. Ohio EPA Required Treatability Studies

The Respondent shall conduct any necessary laboratory and treatability study(ies) required by the Ohio EPA to determine the applicability of remedial technologies.

b. Respondent-Proposed Treatability Studies

Upon approval by the Ohio EPA, the Respondent may conduct any laboratory and treatability study(ies) that it has proposed to the Agency to determine the applicability of remedial technologies.

2. Treatability Study Work Plan

When required or approved of by the Ohio EPA, the Respondent shall develop and submit to this Agency for approval a testing work plan identifying the type(s) and goal(s) of the treatability study(ies), the level of effort needed, the experimental design, and the procedures to be used for data management, validation and interpretation. This work plan shall comport with U.S. EPA's guidance document, Guide for Conducting Treatability Studies Under CERCLA (Interim Final) EPA/540/2-89/058.

The work plan shall include the following elements:

- a. Establishing data quality objectives
- b. Selecting a contracting mechanism
- c. Issuing the Work Assignment
- d. Compliance with regulatory requirements
- e. Execution of the study
- f. Analyzing and interpreting the data
- g. Reporting the results
- h. Sampling and Analysis Plan
- i. Health and Safety Plan

B. Treatability Study Evaluation Report

1. Conducting a Treatability Study

The Respondent will perform the treatability study in accordance with the approved work plan in a systematic fashion to ensure that the data generated can support the remedy evaluation process.

2. Submission of Treatability Study Evaluation Report

Upon completion of the treatability study(ies), the Respondent will prepare a treatability study evaluation report. The Respondent will follow U.S. EPA's guidance document, Guide for Conducting Treatability Studies Under CERCLA (Interim Final) EPA/540/2-89/058, for the appropriate format and content.

TASK 10 -- DETAILED ANALYSIS OF REMEDIAL ALTERNATIVES

A. Detailed Analysis of Alternatives Report

The detailed analysis will be conducted by the Respondent to provide the Ohio EPA with the information needed for the selection of a site remedy. Respondent shall conduct a detailed analysis of the alternatives that pass through the initial

screening. This detailed analysis shall consist of an analysis of each option against a set of eight evaluation criteria and a comparative analysis of all options using the same evaluation criteria as a basis for comparison.

The detailed analysis shall consist of the following elements:

1. Detailed Description

The detailed description of each remaining alternative shall include as a minimum:

- a. Description of appropriate treatment and disposal technologies;
- b. Special engineering considerations required to implement the alternative, e.g., pilot treatment facility or additional studies needed to proceed with final remedial design;
- c. Operation, maintenance and monitoring requirements of the completed remedy;
- d. Off-site disposal needs and transportation plans;
- e. Temporary storage requirements;

- f. Safety requirements for remedial implementation, including both on-site and off-site health and safety considerations;
- g. An analysis of how the alternatives could be phased into individual operations and a discussion of how these operations could best be implemented (individually or in groups) to produce significant environmental improvement;
- h. A review of any off-site treatment or disposal facilities to ensure compliance with RCRA, TSCA and State requirements, both current and proposed; and
- i. An analysis of the projected performance and expected results of the alternative with emphasis on potential for further future release of hazardous substances.

2. Environmental Assessment

An Environmental Assessment (EA) shall be performed for each alternative including, as a minimum, an evaluation of each alternative's environmental effects, an analysis of measures to mitigate adverse effects, physical or legal constraints and compliance with Federal and State regulatory requirements.

Each alternative will be assessed in terms of the extent to which it will mitigate damage to or protect public health, welfare and the environment, in comparison to the other remedial alternatives.

The no action alternative will be fully evaluated to describe the current site conditions and anticipate environmental conditions if no actions are taken. The no action alternative will serve as a baseline for the Environmental Assessment.

3. Apply Eight Criteria and Document Analysis

The respondent shall apply the eight evaluation criteria described below to the assembled remedial alternatives.

a. Overall Protection of Human Health and the Environment.

Alternatives shall be assessed as to whether they can adequately protect human health and the environment from unacceptable risks posed by hazardous substances, pollutants or contaminants present at the site by eliminating, reducing or controlling exposures to levels established during development of remediation goals. This is a threshold requirement and the primary objective of the remediation program.

b. Compliance with Applicable or Relevant and Appropriate Requirements.

The alternatives shall be assessed as to whether they attain applicable or relevant and appropriate standards, criteria and requirements of state and federal environmental and public health laws.

c. Long-term Effectiveness and Permanence.

Alternatives shall be assessed for the long-term effectiveness and permanence they afford, along with the degree of certainty that the alternative will prove successful. Factors that shall be considered, as appropriate, include the following:

- i) Nature and magnitude of total residual risks; potential for exposure of human and environmental receptors; concentrations of hazardous substances, pollutants or contaminants remaining following implementation of remedial alternative, considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous substances and their constituents;
- ii) The type, degree and adequacy of long-term management required for untreated substances and treatment residuals, including engineering controls (such as containment technologies), institutional controls, monitoring and operation and maintenance;
- iii) Long-term reliability of the engineering and institutional controls, including uncertainties associated with land disposal of untreated hazardous substances, pollutants and contaminants, as well as treatment residuals, and;
- iv) Potential need for replacement of the remedy, as well as the continuing need for repairs to maintain the performance of the remedy.

d. Reduction of Toxicity, Mobility or Volume.

The degree to which alternatives employ treatment that reduces toxicity, mobility or volume of contaminants shall be assessed. Alternatives which, at a minimum, address the principal threats posed by the site

through treatment shall also be identified. Factors that shall be considered, as appropriate, include the following:

- i) The treatment or recycling processes the alternatives employ and materials they will treat;
- ii) The amount of hazardous substances, pollutants or contaminants that will be destroyed, or treated, or recycled;
- iii) The degree of expected reduction in toxicity, mobility or volume of the waste due to treatment or recycling and the specifications of which reduction(s) are occurring;
- iv) The degree to which the treatment is irreversible;
- v) The type and quantity of residuals that will remain following treatment, considering the persistence, toxicity, mobility and propensity to bioaccumulate;
- vi) The degree to which treatment will reduce the inherent hazards posed by the principal threats at the Site; and
- vii) The degree to which the treatment processes employed reduce the transfer of contaminants between environmental media.

e. Short-term Effectiveness.

The short-term impacts of the alternatives during the construction and implementation phase, and until the objectives of the remedial action have been met, shall be assessed considering the following:

- i) Short-term risks that may be posed to the community during construction and implementation of an alternative and until the remedial action objectives have been met;
- ii) Potential impacts on workers during remedial action and with the objectives of remedial action have been met, the effectiveness and reliability of protective measures;
- iii) Potential environmental impacts that may result from the remedial action and the effectiveness and reliability of mitigative measures during implementation and until the objectives of the remedial action have been met; and
- iv) Time until response action objectives are achieved.

f. Implementability.

The technical and administrative feasibility of implementing the alternatives shall be assessed by considering the following types of factors, as appropriate:

i) Technical Feasibility

- Degree of difficulty or uncertainty associated with construction and operation of the alternative;
- Expected operational reliability of the alternative;
- Ease of undertaking, additional remedial action(s); and
- Ability to monitor the effectiveness of the remedy.

ii) Administrative Feasibility

- Activities needed to coordinate state, local, and federal agencies (e.g., obtaining necessary approvals and permits, right-of-way for construction)

iii) Feasibility of Obtaining Services and Materials

- Capacity and location of adequate treatment, storage, and disposal services;
- Availability of necessary equipment and specialists and provisions to ensure any necessary additional resources;
- Availability of services and materials; and
- Availability of prospective technologies

g. Cost.

The types of costs that shall be assessed include the following:

- i) Direct and indirect capital costs, including contingency and engineering fees;
- ii) Annual operation and maintenance costs; and
- iii) Net present value of capital and O&M costs.

h. Community Acceptance.

This assessment includes determining which components of the alternatives interested persons in the community support, have reservations about, or oppose. This assessment, which will be completed by the Ohio EPA, will occur throughout the implementation of this RI/FS and will be completed after comments on the proposed remedy are received. It is not part of this order.

4. Compare Alternatives Against Each Other and Document the Comparison of Alternatives

The Respondent will perform a comparative analysis between the remedial alternatives. That is, each alternative will be compared against the others using the evaluation criteria as a basis of comparison. Identification and selection of the preferred alternative are reserved by the Ohio EPA and are not part of this Order. The comparative analysis will be documented and presented in the Feasibility Study Report described below.

B. Feasibility Study Report

The Respondent will submit a draft feasibility study report to the Ohio EPA for review, comment, and approval. This report will include the results of Tasks 9 and 10. The respondent will refer to the U.S.EPA Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA for an outline of the report format and the required report content. Upon satisfactorily addressing Ohio EPA's comments, the Respondent will prepare and submit a final feasibility study report.

TASK 11 -- Monthly Progress Reports

Monthly Technical Progress Reports are required of the Respondent. For each on-going work assignment, Respondent shall submit progress reports with the following elements:

1. Identification of site and activity.
2. Status of work at the site and progress to date.
3. Percentage of completion.
4. Data generated to date
5. Difficulties encountered during the reporting period.

6. Actions being taken to rectify problems.
7. Activities planned for the next month.
8. Changes in personnel.
9. The quantity of media treated, removed, or contained*:
 - 1) Soil treated or removed should be reported by volume and soil contained must be reported by area.
 - 2) Surface water load reduction - Load reduction must address all contaminants of concern.
 - 3) Ground water treated, removed, or contained - Ground water treated must be reported by volume and ground water contained should be reported as an estimated area of the plume.
 - 4) Leachate treated, removed or contained - Leachate treated, removed or contained must be reported by volume.
 - 5) Sediments treated, removed, or contained - Sediments treated or removed should be reported by volume and sediments contained must be reported by area.
 - 6) Waste and debris treated, removed, or contained - Waste and debris will be defined as regulated materials not otherwise covered in a through e above. Waste debris treated or removed must be reported by volume and waste and debris contained should be reported by either volume or area, as appropriate.

The monthly progress report will list target and actual completion dates for each activity including project completion and provide an explanation of any deviation from the milestones in the work plan schedule.

Updated October 3, 2003.

APPENDIX C

**FEBRUARY 7, 2003
DIRECTOR'S FINAL FINDINGS AND ORDERS**

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:

Bison Corp.
1935 Allen Avenue SE
Canton, OH 44707

Morelli Realty Corp.
129 Middlesworth Avenue SW
North Canton, OH 44720

Respondents

Director's Final
Findings and Orders

ENTERED DIRECTOR'S JOURNAL

FEB - 7 2003

OHIO E.P.A.

PREAMBLE

It is hereby agreed to by and among the Parties as follows:

I. JURISDICTION

1. These Director's Final Findings and Orders ("Orders") are issued pursuant to the authority vested in the Director of the Ohio EPA under Sections 3734.13, 3734.20, 6111.03, and 3745.01 of the Ohio Revised Code. Respondents consent to and agree not to contest Ohio EPA's jurisdiction to issue and enforce these Orders.

II. PARTIES BOUND

2. These Orders shall apply to and be binding upon Respondents and successors in interest liable under Ohio law.

3. No change in ownership or corporate status of Respondents including, but not limited to, any transfer of assets or real or personal property shall in any way alter Respondents' obligations under these Orders.

4. Respondents shall provide a copy of these Orders to all contractors, subcontractors, laboratories and consultants retained to perform any portion of the Work pursuant to these Orders. Respondents shall ensure that all contractors, subcontractors, laboratories and consultants retained to perform Work pursuant to these Orders comply with the provisions of these Orders.

The signatories to these Orders certify that they are fully authorized to and legally bind the Party they represent.

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

Director of the Ohio EPA

III. DEFINITIONS

6. Unless otherwise expressly provided herein, terms used in these Orders or in any appendices shall have the same meaning as used in Chapters 3734 and 6111 of the Ohio Revised Code. Whenever the terms listed below are used in these Orders or in any appendices, attached hereto and incorporated herein, the following definitions shall apply:

- a. "Day" shall mean a calendar day unless expressly stated to be a business day. "Business day" shall mean a day other than a Saturday, Sunday, or State Holiday. In computing any period of time under these Orders, where the last day would fall on a Saturday, Sunday, or State Holiday, the period shall run until the close of the next business day.
- b. "Facility" shall mean the real property and attached buildings located at 1935 Allen Avenue, SE, Canton, Stark County, Ohio, also known as Bison Corp.
- c. "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan, codified at 40 C.F.R. Part 300 (1990), as amended.
- d. "Ohio EPA" shall mean the Ohio Environmental Protection Agency and its designated representatives.
- e. "Paragraph" shall mean a portion of these Orders identified by an arabic numeral or an upper or lower case letter.
- f. "Parties" shall mean Respondents and the Ohio EPA.
- g. "Respondents" shall mean Bison Corp. and Morelli Realty Corp.
- h. "Response Costs" shall mean all costs including, but not limited to, payroll costs, contractor costs, travel costs, direct costs, indirect costs, legal and enforcement-related costs, oversight costs, laboratory costs, the costs of reviewing or developing plans, reports, and other items pursuant to these orders, verifying the Work, or otherwise implementing or enforcing these Orders.
- i. "Section" shall mean a portion of these Orders identified by a roman numeral.

- j. "Site" shall mean the property located at 1935 Allen Avenue, SE, Canton, Stark County, Ohio, where the treatment, storage, and/or disposal of waste material, and/or the discharge into waters of waste material has occurred, including any other area where such waste material may have migrated or threatens to migrate.
- k. "Waste Material" shall mean (1) any "hazardous waste" under Section 3734.01(J) of the Ohio Revised Code; (2) any "solid waste" under Section 3734.01(E) of the Ohio Revised Code; (3) any "industrial waste" under Section 6111.01(C) of the Ohio Revised Code; and (4) any "other waste" under Section 6111.01(D) of the Ohio Revised Code.
- l. "Work" shall mean all activities Respondents are required to perform under these Orders.

IV. FINDINGS OF FACT, DETERMINATIONS, AND CONCLUSIONS OF LAW

7. All findings of fact, determinations, and conclusions of law necessary for the issuance of this Consent Order pursuant to ORC Sections 3734.13, 3734.20 and 6111.03 have been made and are outlined below. Ohio EPA has determined the following:

- a. Bison Corp. (Bison) was the operator of the facility located at 1935 Allen Avenue SE, Canton, Stark County, Ohio. This facility was used for the production of grinding and buffing wheels for use in the metal plating industry. In addition, industrial solvents were stored in bulk for distribution to metal working and plating operations. It appears that during the course of operations at the facility, solvents were released to the ground. Operations at the facility are currently limited to storage and distribution of metals (nickel, zinc and copper) and the storage and distribution of acids, solvents, and other miscellaneous chemicals.
- b. Morelli Realty Corp. is the current owner of the facility.
- c. Sampling conducted by Bison demonstrates that the following contaminants are present in the groundwater at and down gradient from the facility: tetrachloroethylene (PCE); trichloroethylene (TCE); 1,1,1-trichloroethane (TCA); 1,1-dichloroethane (1,1-DCA); 1,1-dichloroethylene (1,1-DCE); 1,2-dichloroethylene (1,2-DCE); and vinyl chloride (VC). Sampling results show the following levels of contaminants are present in the groundwater: up to 18,800 micrograms per liter (ug/l) PCE; up to 70,700 ug/l TCE; up to

37,700 ug/l TCA; up to 4,680 ug/l 1,1-DCA; up to 853 ug/l 1,1-DCE; up to 30,406 ug/l 1,2-DCE; and up to 137 ug/l VC.

- d. Investigations conducted by Bison show that contaminated groundwater from the facility has migrated in a southwest direction under residences located in the vicinity of the facility. Indoor air modeling completed by Bison indicated that estimated indoor air inhalation exposures in homes located down gradient from Bison may exceed Ohio EPA and U.S. EPA acceptable risk goals. On the basis of this information, indoor air samples were collected by the City of Canton Health Department and Ohio EPA in homes in the vicinity of the facility in the period from November 12 to 15, 2002.
- e. The indoor air sampling results, which were received on December 11, 2002, show that elevated concentrations of the volatile contaminants that were found in ground water on and down gradient from the Bison facility are present in the homes. Sampling results show the following levels of contaminants are present in the indoor air in homes: up to 67.59 parts per billion volume (ppbv) PCE; up to 147.45 ppbv TCE; up to 133.55 ppbv TCA; up to 13.94 ppbv 1,1-DCA; up to 5.37 ppbv 1,1-DCE; and up to 7.53 ppbv 1,2-DCE. The levels of contaminants, particularly PCE and TCE, in the air in the homes exceed the level that is considered to be acceptable by Ohio EPA and U.S. EPA.
- f. Each Respondent is a "person" as that term is defined in ORC 3734.01(G).
- g. Because of their quantity, concentration, or physical or chemical characteristics, the Director of the Ohio EPA has determined that PCE, TCE, TCA, 1,1-DCA, 1,1-DCE, and 1,2-DCE, VC and other contaminants detected in the ground water at the Site are "hazardous wastes" as defined in ORC 3734.01(J).
- h. The contaminants listed in finding "g" above are present in the soil and ground water at the Site.
- i. Conditions at the Site constitute a substantial threat to public health or safety or are causing or contributing or threatening to cause or contribute to air or water pollution or soil contamination.
- j. Each Respondent is a "person" as defined under Section 6111.01(I) of the Ohio Revised Code.

- k. PCE, TCE, TCA, 1,1-DCA, 1,1-DCE, 1,2-DCE, VC and other contaminants found at the Site are "industrial wastes" or "other wastes" as defined under Section 6111.01 of the Ohio Revised Code.
- l. The ground water and surface water at the Site are "waters of the state" as defined under Section 6111.01(H) of the Ohio Revised Code.
- m. In issuing these Orders, the Director has given consideration to, and based his determination on, evidence relating to the technical feasibility and economical reasonableness of complying with these Orders and to evidence relating to conditions calculated to result from compliance with these Orders, and their relation to benefits to the people of the state to be derived from such compliance.

V. GENERAL PROVISIONS

8. Objective of the Parties

The objective of the Parties in entering into these Orders is to contribute to the protection of public health, safety, and welfare and the environment from the disposal, discharge, or release of Waste Material. This objective will be achieved through implementation of an interim action that will reduce the concentrations of volatile contaminants in the indoor air in homes impacted by Bison to acceptable levels.

9. Commitment of Respondents

Respondents shall perform the Work in accordance with these Orders, including but not limited to all standards, specifications, and schedules set forth in or developed pursuant to these Orders. Respondents shall also reimburse Ohio EPA for Response Costs as provided in these Orders.

10. Compliance With Law

- a. All activities undertaken by Respondents pursuant to these Orders shall be performed in accordance with the requirements of all applicable federal and state laws and regulations.
- b. Respondents shall perform the activities required pursuant to these Orders in a manner which is not inconsistent with the NCP. The Ohio EPA believes that activities conducted pursuant to these Orders, if

approved by the Ohio EPA, shall be considered to be consistent with the NCP.

- c. Where any portion of the Work requires a permit or approval, Respondents shall timely submit applications and take all other actions necessary to obtain such permits or approval. These Orders are not, and shall not be construed to be, a permit issued pursuant to any statute or regulation.

VI. PERFORMANCE OF THE WORK BY RESPONDENTS

11. Supervising Contractor

All Work performed pursuant to these Orders shall be under the direction and supervision of a contractor with expertise in hazardous waste site investigation and remediation. Prior to the initiation of the Work, Respondents shall notify Ohio EPA in writing of the name of the supervising contractor and any subcontractor to be used in carrying out the terms of these Orders.

12. Interim Action Work Plan

- a. Within seven (7) days after the effective date of these Orders, Respondent shall submit to Ohio EPA a Work Plan which will include the following requirements:
 1. Install in home remedial systems at the following addresses located on Kimball Road SE as determined by the indoor air sampling conducted in November 2002: 2012; 2016; 2022; 2026; 2030; 2038; 2013; 2017; and 2033 to reduce concentrations of volatile contaminants to acceptable levels as determined by Ohio EPA. The Respondents' obligation to install an in home remedial system in each of the residences listed above is dependent upon receipt of each property owner's consent.
 2. Perform operation and maintenance of the in home remedial systems to ensure performance standards are achieved and maintained. Conduct indoor air monitoring for volatile contaminants following procedures used during the November 2002 indoor air sampling approximately two months post installation. Develop and implement a long term operation and maintenance plan to address site-related indoor air issues.

3. Define background concentrations of volatile contaminants in indoor air in approximately three (3) homes located up gradient from Site impacts. Perform additional indoor air sampling in approximately three (3) homes located down gradient from Bison to define the extent of indoor air impacts from the Site utilizing site-related and background data. In addition, resample indoor air in homes sampled in November 2002, located at 2116 and 2126 Kimball Road, SE, that have not been recommended to have in home remedial systems installed at this time.
 4. Evaluate and implement additional in home remedial systems in homes determined to exceed acceptable levels by Ohio EPA based on the additional sampling data obtained.
- b. If Ohio EPA determines that new guidance documents affect the Work to be performed under these Orders, Ohio EPA will notify Respondents, and the Work Plan and other affected documents shall be modified accordingly. Tasks required under the approved Work Plan which have already been implemented shall not be subject to any new guidance documents.
 - c. Should Respondents identify any inconsistency between any of the laws and regulations and the approved Work Plan which they are required to follow by these Orders, Respondents shall notify the Ohio EPA in writing of each inconsistency and the effect of the inconsistencies upon the Work to be performed. Respondents shall also recommend, along with a supportable rationale justifying each recommendation, the requirement Respondents believe should be followed. Respondents shall implement the affected Work as directed by the Ohio EPA.
 - d. Ohio EPA will review the Work Plan pursuant to the procedures set forth in Section XII, Review of Submittals. Upon approval of the Work Plan by Ohio EPA, Respondents shall implement the Work Plan. Respondents shall submit all plans, reports, or other deliverables required under the approved Work Plan, in accordance with the approved schedule, for review and approval pursuant to Section XII, Review of Submittals.
 - e. Within seven (7) days of the effective date of these Orders, Respondents shall meet with the Ohio EPA to discuss the requirements of the Work Plan unless otherwise mutually agreed to by the Parties.

VII. ADDITIONAL WORK

13. Ohio EPA or Respondents may determine that in addition to the tasks defined in the approved Work Plan, additional work may be necessary to accomplish the objectives of these Orders as set forth in Paragraph 8 of these Orders.

14. Within fourteen (14) days of receipt of written notice from Ohio EPA that additional work is necessary, Respondents shall submit a work plan for the performance of the additional work. Upon approval of the work plan by Ohio EPA pursuant to Section XII, Review of Submittals, Respondents shall implement the work plan for additional work in accordance with the schedules contained therein.

15. In the event that Respondents determine that additional work is necessary, Respondent shall submit a work plan for the performance of additional work. Upon approval of the work plan by the Ohio EPA pursuant to Section XII, Review of Submittals, Respondents shall implement the work plan for additional work in accordance with the schedules contained therein.

VIII. SAMPLING AND DATA AVAILABILITY

16. Respondents shall notify Ohio EPA not less than seven (7) days in advance of all sample collection activity. Upon request, Respondents shall allow duplicate samples to be taken by Ohio EPA. Ohio EPA shall also have the right to take any additional samples it deems necessary. Upon request, Ohio EPA shall allow Respondents to take split and/or duplicate samples of any samples Ohio EPA takes as part of its oversight of Respondents' implementation of the Work.

17. Within seven (7) days of a request by Ohio EPA, Respondents shall submit to Ohio EPA copies of the results of all sampling and/or tests or other data, including raw data and original laboratory reports, generated by or on behalf of Respondents with respect to the Site and/or the implementation of these Orders. Respondents may submit to Ohio EPA any interpretive reports and written explanations concerning the raw data and original laboratory reports. Such interpretive reports and written explanations shall not be submitted in lieu of original laboratory reports and raw data. Should Respondents subsequently discover an error in any report or raw data, Respondent shall promptly notify Ohio EPA of such discovery and provide the correct information.

IX. ACCESS

18. Ohio EPA shall have access at all times to the Site and any other property to which access is required for the implementation of these Orders, to the extent access to the property is controlled by Respondents. Access under these Orders shall be for the

purposes of conducting any activity related to these Orders including, but not limited to the following:

- a. Monitoring the Work;
- b. Conducting sampling;
- c. Inspecting and copying records, operating logs, contracts, and/or other documents related to the implementation of these Orders;
- d. Conducting investigations and tests related to the implementation of these Orders; and
- e. Verifying any data and/or other information submitted to Ohio EPA.

19. To the extent that the Site or any other property to which access is required for the implementation of these Orders is owned or controlled by persons other than Respondents, Respondents shall use their best efforts to secure from such persons access for Respondent and the Ohio EPA as necessary to effectuate these Orders. Copies of all access agreements to such properties, if any, obtained by Respondents shall be provided promptly to Ohio EPA. If any access required to effectuate these Orders is not obtained within thirty (30) days of the effective date of these Orders, or within thirty (30) days of the date Ohio EPA notifies Respondents in writing that additional access beyond that previously secured is necessary, Respondents shall promptly notify the Ohio EPA in writing of the steps Respondents have taken to attempt to obtain access. Ohio EPA may, as it deems appropriate, assist Respondents in obtaining access.

20. Notwithstanding any provision of these Orders, the State of Ohio retains all of its access rights and authorities, including enforcement authorities related thereto, under any applicable statute or regulations.

X. DESIGNATED SITE COORDINATORS

21. Within seven (7) days of the effective date of these Orders, Respondents shall notify Ohio EPA, in writing, of the name, address and telephone number of their designated Site Coordinator and Alternate Site Coordinator. If a designated Site Coordinator or Alternate Site Coordinator is changed, the identity of the successor will be given to the other Party at least seven (7) days before the change occurs, unless impracticable, but in no event later than the actual day the change is made.

22. To the maximum extent practicable, except as specifically provided in these Orders, communications between Respondents and Ohio EPA concerning the implementation of these Orders shall be made between the Site Coordinators. Respondents' Site Coordinators shall be available for communication with Ohio EPA regarding the implementation of these Orders for the duration of these Orders. Each Site Coordinator shall be responsible for ensuring that all communications from the other Party are appropriately disseminated and processed. Respondents' Site Coordinators or alternates shall either be present on the Site or on call during all hours of work at the Site.

23. Without limitation of any authority conferred on Ohio EPA by statute or regulation, the Ohio EPA Site Coordinator's authority includes, but is not limited to the following:

- a. Taking samples and directing the type, quantity and location of samples to be taken by Respondents pursuant to an approved work plan;
- b. Observing, taking photographs, or otherwise recording information related to the implementation of these Orders, including the use of any mechanical or photographic device;
- c. Directing that the Work stop whenever the Site Coordinator for Ohio EPA determines that the activities at the Site may create or exacerbate a threat to public health or safety, or threaten to cause or contribute to air or water pollution or soil contamination;
- d. Conducting investigations and tests related to the implementation of these Orders;
- e. Inspecting and copying records, operating logs, contracts and/or other documents related to the implementation of these Orders; and
- f. Assessing Respondents' compliance with these Orders.

XI. PROGRESS REPORTS AND NOTICE

24. Unless otherwise directed by Ohio EPA, Respondents shall submit a written progress report to the Ohio EPA by the tenth (10th) day of every month. After the sixth monthly report has been submitted, Ohio EPA and the Respondents may mutually

agree to a change in the frequency at which the reports are submitted. At a minimum, the progress reports shall:

- a. Describe the status of the Work and actions taken toward achieving compliance with the Orders during the reporting period;
- b. Describe difficulties encountered during the reporting period and actions taken to rectify any difficulties;
- c. Describe activities planned for the next month;
- d. Identify changes in key personnel;
- e. List target and actual completion dates for each element of activity, including project completion; and
- f. Provide an explanation for any deviation from any applicable schedules.

25. Progress reports and all other documents required to be submitted pursuant to these Orders shall be sent by certified mail return receipt requested, or equivalent, to the following addresses:

Ohio Environmental Protection Agency
122 South Front Street
P.O. Box 1049
Columbus, Ohio 43216-0149
ATTN: DERR Records Room

Ohio EPA Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087
ATTN: Bison Site Coordinator

All correspondence to Respondents shall be directed to the following address:

Victor R. Marsh
Black, McCuskey, Souers & Arbaugh
1000 Unizan Plaza
220 Market Avenue, South
Canton, OH 44702

XII. REVIEW OF SUBMITTALS

26. Ohio EPA shall review any work plan, report, or other item required to be submitted pursuant to these Orders. Upon review, Ohio EPA may in its sole discretion: (a) approve the submission in whole or in part; (b) approve the submission upon specified conditions; (c) modify the submission; (d) disapprove the submission in whole or in part, notifying Respondent of deficiencies; or (e) any combination of the above.

27. In the event of approval, approval upon condition, or modification of any submission by the Ohio EPA, Respondents shall proceed to take any action required by the submission as approved, conditionally approved, or modified by Ohio EPA.

28. In the event that Ohio EPA initially disapproves a submission, in whole or in part, and notifies Respondents of the deficiencies, Respondents shall, within seven (7) days or such longer period of time as specified by Ohio EPA in writing, correct the deficiencies and resubmit the revised submission to Ohio EPA for approval. The revised submission shall incorporate all of the uncontested changes, additions, and/or deletions specified by Ohio EPA in its notice of deficiency. To the extent that Respondents contest any changes, additions, and/or deletions specified by the Ohio EPA, Respondents shall initiate the procedures for dispute resolution set forth in Section XIII, Dispute Resolution, within seven (7) days after receipt of Ohio EPA's notification of disapproval of a submission. Notwithstanding the notice of deficiency, Respondents shall proceed to take any action required by a non-deficient portion of the submission.

29. In the event that Ohio EPA disapproves a revised submission, in whole or in part, Ohio EPA may again require Respondents to correct the deficiencies and incorporate all changes, additions, and/or deletions within seven (7) days, or such period of time as specified by Ohio EPA in writing. Or, in the alternative, Ohio EPA retains the right to terminate these Orders, perform any additional remediation, and/or enforce the terms of these Orders.

30. All work plans, reports, or other items required to be submitted to Ohio EPA under these Orders shall, upon approval by Ohio EPA, be deemed to be incorporated in and made an enforceable part of these Orders. In the event that Ohio EPA approves a portion of a work plan, report, or other item, the approved portion shall be deemed to be incorporated in and made an enforceable part of these Orders.

XIII. DISPUTE RESOLUTION

31. The Site Coordinators shall, whenever possible, operate by consensus. In the event that there is a dispute about the adequacy of any work plan, report, or other

item required to be submitted pursuant to these Orders, the site coordinator shall have seven (7) days from the date the dispute arises to reduce their positions to writing. The dispute shall be considered to have arisen when one Party notifies the other Party in writing that it is invoking the dispute resolution procedures of this Section. The written positions of the Site Coordinators shall include the technical rationale supporting the Party's position and shall be immediately exchanged by the Site Coordinators. This seven (7) day period for the written positions may be extended by mutual agreement of the Parties. Such agreement shall not be unreasonably withheld.

32. Following the exchange of written positions, the Site Coordinators shall have an addition seven (7) days to resolve the dispute. If Ohio EPA concurs with the position of the Respondent, then the work plan, report, or other item required to be submitted pursuant to these Orders shall be modified accordingly.

33. If Ohio EPA does not concur with Respondents, Ohio EPA will resolve the dispute based upon and consistent with these Orders and other appropriate federal and state laws and regulations. The pendency of a dispute under this Section shall not affect the time period for completion of the Work, except that upon mutual agreement of the Parties any time period may be extended as appropriate under the circumstances. Such agreement shall not be unreasonably withheld by Ohio EPA. Elements of the Work not affected by the dispute shall be completed in accordance with applicable schedules and time frames. The opportunity to invoke dispute resolution under this Section shall not be available to Respondent unless otherwise expressly state with respect to an individual provision of these Orders.

XIV. UNAVOIDABLE DELAYS

34. Respondents shall cause all Work to be performed in accordance with applicable schedules and time frames unless any such performance is prevented or delayed by an event which constitutes an unavoidable delay. For purposes of these Orders, an "unavoidable delay" shall mean an event beyond the control of Respondents which prevents or delays performance of any obligation required by these Orders and which could not be overcome by due diligence on the part of Respondents. Increased cost of compliance shall not be considered an event beyond the control of Respondents.

35. Respondents shall notify Ohio EPA by phone within twenty-four (24) hours and in writing within five (5) days after the occurrence of an event which Respondents contend is an unavoidable delay. Such written notification shall describe the anticipated length of the delay, the cause or causes of the delay, the measures taken and to be taken by Respondents to minimize the delay, and the timetable under which these

measures will be implemented. Respondents shall have the burden of demonstrating that the event constitutes an unavoidable delay.

36. If Ohio EPA does not agree that the delay has been caused by an unavoidable delay, Ohio EPA will notify the Respondents in writing. Ohio EPA reserves the right to terminate these Orders, perform any additional remediation, conduct a partial or complete Remedial Investigation and Feasibility Study, and/or enforce the terms of these Orders in the event that Ohio EPA determines that the delay has not been caused by an unavoidable delay. If Ohio EPA agrees that the delay is attributable to an unavoidable delay, Ohio EPA will notify Respondents in writing of the length of the extension for the performance of the obligations affected by the unavoidable delay.

XV. REIMBURSEMENT OF COSTS

37. Ohio EPA has incurred and continues to incur Response Costs in connection with the Site. Respondents shall reimburse Ohio EPA for all Response Costs incurred both prior to and after the effective date of these Orders.

38. Within thirty (30) days of receipt of an accounting of Response Costs incurred prior to the effective date of these Orders, Respondents shall remit a check to the Ohio EPA for the full amount claimed.

39. With respect to Response Costs incurred after the effective date of these Orders, Ohio EPA will submit to Respondents an itemized statement of its Response Costs for the previous year. Within thirty (30) days of receipt of such itemized statement, Respondents shall remit payment for all of Ohio EPA's Response Costs for the previous year. No more than three (3) times during the calendar year, the Respondents may request, through the Ohio EPA Site Coordinator, an informational copy of the current invoice of Response Costs for that calendar year.

40. Respondents shall remit payments to Ohio EPA pursuant to this Section as follows:

a. Payment shall be made by certified check payable to "Treasurer, State of Ohio" and shall be forwarded to Fiscal Officer, Ohio EPA, P.O. Box 1049, 122 South Front Street, Columbus, Ohio 43216-0149.

b. A copy of the transmittal letter and check shall be sent to the Fiscal Officer, DERR, Ohio EPA, P.O. Box 1049, 122 South Front Street, Columbus, Ohio 43216-0149, ATTN:

Patricia Campbell, or her successor, and to the Site Coordinator.

XVI. RESERVATION OF RIGHTS

41. Ohio EPA reserves the right to seek legal and/or equitable relief to enforce the terms and conditions of these Orders, including penalties against Respondents for noncompliance with these Orders. Except as provided herein, Respondents reserve any rights they may have to raise any legal or equitable defense in any action brought by Ohio EPA to enforce the terms and conditions of these Orders.

42. Ohio EPA reserves the right to terminate these Orders and/or perform all or any portion of the Work or any other measures in the event that the requirements of these Orders are not wholly complied with within the time frames required by these Orders.

43. Ohio EPA reserves the right to take any action, including but not limited to any enforcement action, action to recover costs, or action to recover damages to natural resources, pursuant to any available legal authority as a result of past, present, or future violations of state or federal laws or regulations or the common law, and/or as a result of events or conditions arising from, or related to, the Site.

XVII. ACCESS TO INFORMATION

44. Respondents shall provide to Ohio EPA, upon request, copies of all documents and information within its possession or control or that of its contractors or agents relating to events or conditions at the Site including, but not limited to manifests, reports, correspondence, or other documents or information related to the Work.

45. Respondents may assert a claim that documents or other information submitted to the Ohio EPA pursuant to these Orders are confidential under the provisions of OAC 3745-50-30(A) or R.C. 6111.05(A). If no such claim of confidentiality accompanies the documents or other information when it is submitted to the Ohio EPA, it may be made available to the public without notice to Respondents.

46. Respondents may assert that certain documents or other information are privileged under the attorney-client or any other privilege recognized by state law. If Respondents make such an assertion, Respondents shall provide the Ohio EPA with the following: (1) the title of the document or information; (2) the date of the document or information; (3) the name and title of the author of the document or information; (4) the name and title of each addressee and recipient; (5) a general description of the contents

of the document or information; and (6) the privilege being asserted by Respondents. To the extent that Respondents refuse to provide this information to the Ohio EPA on the basis that doing so would in effect waive the privilege being asserted, Respondents shall, at a minimum, inform Ohio EPA of the existence of any document being withheld and shall inform Ohio EPA of the privilege being asserted for the document.

47. No claim of confidentiality shall be made with respect to any data, including but not limited to, all sampling, analytical monitoring, or laboratory or interpretive reports.

48. Respondents shall preserve for the duration of these Orders and for a minimum of five (5) years after the Orders' termination, all documents and other information within its possession or control, or within the possession or control of its contractors or agents, which in any way relate to the Work, notwithstanding any document retention policy to the contrary. Respondents may preserve such documents by microfiche, or other electronic or photographic device. At the conclusion of this document retention period, Respondents shall notify Ohio EPA at least sixty (60) days prior to the destruction of these documents or other information and, upon request, shall deliver such documents and other information to Ohio EPA.

XVIII. INDEMNITY

49. Respondents agree to indemnify, save, and hold harmless Ohio EPA from any and all claims or causes of action arising from, or related to, events or conditions at the Site. Ohio EPA agrees to provide notice to Respondents within thirty (30) days of receipt of any claim which may be the subject of indemnity as provided in this Section, and to cooperate with Respondents in the defense of any such claim or action against the Ohio EPA. Ohio EPA shall not be considered a party to and shall not be held liable under any contract entered into by Respondents in carrying out the activities pursuant to these Orders.

XIX. OTHER CLAIMS

50. Nothing in these orders shall constitute or be construed as a release from any claim, cause of action, or demand in law or equity against any person, firm, partnership, or corporation, not subject to these Orders for any liability arising from, or related to, events or conditions at the Site.

XX. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

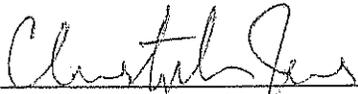
51. The effective date of these Orders shall be the date on which it is entered in the Journal of the Director of the Ohio EPA.

52. These Orders may be modified by mutual agreement of the Parties. Modifications shall be in writing and shall be effective on the date entered in the Journal of the Director of the Ohio EPA.

XXI. TERMINATION

53. These Orders shall terminate upon Ohio EPA's approval in writing of Respondents' written certification to the Ohio EPA that all Work required to be performed under these Orders, including the payment of Response Costs, has been completed. The termination of these Orders shall not affect the terms and conditions of Section XVI, Reservation of Rights, Section XVII, Access to Information, Section XVIII, Indemnity, and Section XIX, Other Claims.

IT IS SO ORDERED:



Christopher Jones, Director
Ohio Environmental Protection Agency

Date 2-5-03

WAIVER AND AGREEMENT

A. In order to resolve disputed claims, without admission of fact, violation, or liability, Respondents agree that these Findings and Orders are lawful and reasonable, and agrees to perform all actions required by these Orders.

B. Respondents hereby waive the right to appeal the issuance, terms and conditions, and service of these Orders and hereby waive any and all rights that it may have to seek judicial review of the issuance, terms and conditions, and service of these Orders either in law or equity.

C. Notwithstanding the limitations herein on Respondent's right to appeal or seek judicial review, the Ohio EPA and Respondents agree that in the event that these Orders are appealed by any other party to the Environmental Review Appeals Commission (ERAC), or any court, Respondents retain the right to intervene and participate in such appeal. In such event, Respondents shall continue to comply with these Orders notwithstanding such appeal and intervention unless these Orders are stayed, vacated or modified.

IT IS SO AGREED:

Respondents

✓ W.K. Henry - BISON CORP. 1-29-03
W.K. Henry Date

✓ - PRES.
Title

T.P. Kessler - MORELLI REALTY CORP. 1-30-03
T.P. Kessler Date

Secretary
Title

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones 2-5-03
Christopher Jones, Director Date

APPENDIX D

NUMBER: DERR-00-RR-013
ISSUED: 7/30/04 (Revised)
STATUS: DRAFT
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SUBJECT: PREFERRED PLAN AND DECISION DOCUMENT PROCEDURES

PURPOSE:

This procedure describes the process used to prepare and finalize Preferred Plans and Decision Documents to meet the statutory requirements of Chapter 3734 of the Ohio Revised Code (ORC) and to facilitate public participation in the identification of the preferred alternative for the cleanup at a state lead site. This procedure also sets forth the roles and responsibilities of the Division of Emergency and Remedial Response (DERR), Public Interest Center (PIC), and Office of Legal Services in preparing, distributing and issuing Preferred Plans and Decision Documents.

BACKGROUND:

Section 3734.20 of the ORC provides the Director of Ohio EPA the authority to initiate appropriate action under Chapters 3704, 3734, or 6111 of the ORC to abate pollution or contamination or to protect public health or safety if the Director determines that conditions at a hazardous waste facility, solid waste facility, or other location where waste was treated, stored, or disposed of constitute a substantial threat to public health or safety or are causing or contributing to or threatening to cause or contribute to air or water pollution or soil contamination.

According to Section 3734.21 (B) of the ORC, prior to beginning the cleanup of a hazardous waste facility, the Director shall develop a plan for the cleanup, which includes those measures necessary to abate conditions at the facility that are causing or contributing to pollution or contamination or that constitute a substantial threat to public health or safety.

Section 3734.22 of the ORC provides that before Ohio EPA begins the cleanup of a facility, the Director "...shall endeavor to enter into an agreement with the owner of the land on which the facility is located, or with the owner of the facility..." The agreement shall specify the measures to be taken and provide authorization to the Director and Ohio EPA employees "...to enter upon the land and perform the specified measures." Preferred Plans and Decision Documents explain to the public the evaluation of alternatives during the development of plans for cleanup at a site. The official record is kept by the district office.

To ensure Ohio EPA's ability to recover the costs of activities outlined in this procedure, all activities outlined in this procedure will be conducted so they are not inconsistent with the National Contingency Plan (NCP).

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DEFINITIONS: The term Preferred Plan means a document prepared by DERR that presents Ohio EPA's preferred alternative for cleanup at a site to the public.

Decision Document means the report that documents Ohio EPA's final cleanup plan for a site.

PROCEDURES: The following procedures will be followed by DERR when developing Preferred Plans and Decision Documents.

(A) Preferred Plans

- (1) The site coordinator will draft the Preferred Plan using the Template for Preparation of Preferred Plans available at http://www.epa.state.oh.us/derr/policies/html/remedial_response.html in an Adobe Acrobat format or as a downloadable WordPerfect file. It will be approved by the DERR district office manager and/or the district chief. The Preferred Plan will include, at a minimum, the following information:
 - (a) Environmental conditions at the site as determined by the Remedial Investigation (RI);
 - (b) Remedial alternatives evaluated in the Feasibility Study (FS);
 - (c) Remedial action goals and clear, measurable performance standards;
 - (d) An analysis of the preferred alternatives following established evaluation criteria; and
 - (e) Ohio EPA's preferred alternative.
- (2) The draft Preferred Plan, a briefing memorandum and a draft public notice narrative will be distributed to the Remedial Response Section manager and the assigned attorney. The transmittal will indicate who in central office has previously reviewed or provided support in developing the Preferred Plan. The enforcement coordinator will coordinate comments and transmit all comments to the site coordinator.
- (3) The briefing memorandum addressed to DERR's chief will describe the include the following:

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- (a) a general description of the site and proposed remedy;
- (b) a discussion of the process it took to get to the Preferred Plan (including any extenuating circumstances that would have caused the Preferred Plan to be completed in extended period of time from when the FS was approved); and .
- (c) an explanation of how risk management decisions were dealt with in the Preferred Plan.

The final Preferred Plan will be sent to DERR's chief for approval, with attached sign-off sheet through the following individuals: DERR district office manager and/or the district chief; assigned attorney; and Remedial Response Section manager.

- (4) The enforcement coordinator will keep a copy and will distribute one copy of the final Preferred Plan to the assigned attorney and the records management officer, and the original along with two copies to the district office (*i.e.*, district office, Potentially Responsible Party (PRP) and information repository).
- (5) At the same time that the Preferred Plan is going through sign-off, the site coordinator will draft the public notice in accordance with the attached template (Attachment A). The site coordinator will contact PIC regarding the public notice and public meeting. The site coordinator will send the public notice to the enforcement coordinator and the assigned attorney. They will transmit the final public notice to the Administration Section via e-mail for processing. The public notice will follow procedures contained in "Procedures for Public Notice of Remedial Response Site Activities" (DERR-00-RR-033). The notice will be a WordPerfect document in an Arial font with twelve (12) point lettering, full justification and single spaced. The notice will inform the public of its role in the remedy selection process and provide the following information:
 - (a) The location of the information repository and administrative record file, which must be at a location near the site, with copying facilities nearby;
 - (b) The methods by which the public may submit comments;
 - (c) The public notice, which must be published in the newspaper of largest circulation in the county in which the site is situated a minimum of thirty (30) calendar days prior to date of the public meeting;
 - (d) The date, time and place of the public meeting; and

(e) The public comment period, which will extend from the date that the public notice is first published in the newspaper to a minimum of seven (7) calendar days after the date of the public meeting.

- (6) PIC will prepare and issue a press release to announce the public meeting.
- (7) During the public comment period, the site coordinator will work with PIC to schedule the public meeting. The first portion of the meeting will be used to explain the Preferred Plan and answer questions. The site coordinator and other agency staff (as required) will participate. The second portion of the meeting will be a formal hearing to record comments on the Preferred Plan. A transcript will be taken and made available to the public in the information repository.
- (8) The site coordinator may reevaluate the preferred alternative based on public comments and any new information received. The site coordinator may recommend to change a component of the preferred alternative or recommend to implement a remedy other than the preferred alternative.
- (9) If significant changes to the original Preferred Plan are made, DERR will take additional public comment and repeat the public notice process (see steps 5 through 7). Changes to the preferred alternative will be coordinated among the district office, central office, and the assigned attorney. The decision to change the preferred alternative will be approved by DERR's chief.

(B) Decision Documents

- (1) The site coordinator will draft the Decision Document using the Template for Preparation of Decision Documents available at http://www.epa.state.oh.us/derr/policies/html/remedial_response.html in an Adobe Acrobat format or as a downloadable WordPerfect file. It will be approved by the DERR district office manager and/or the district chief. It must consist of three components:
 - (a) The Declaration, an abstract of the key information;
 - (b) The Decision Summary, an overview of the site characteristics and the remedy selected; and
 - (c) The Responsiveness Summary, a summary of public comments received on the Preferred Plan, RI/FS report, and other information in the administrative record and Ohio EPA's position on these comments.

- (2) The draft Decision Document will be distributed to the Remedial Response Section manager, or assigned enforcement coordinator, and the assigned attorney. The enforcement coordinator will coordinate comments on the Decision Document. The enforcement coordinator will transmit all comments to the site coordinator.
- (3) The site coordinator will make necessary revisions to the Decision Document and prepare a briefing memorandum addressed to the Director, which will contain the following:
 - (a) a description of the site;
 - (b) a site history;
 - (c) a summary of the selected remedy;
 - (d) a synopsis of the public comments;
 - (e) an explanation of the administrative authority;
 - (f) periodic review requirements and considerations if the remedy fails; and
 - (g) financial status of the PRP.

The site coordinator will forward a final draft of the Decision Document, briefing memorandum and a draft public notice narrative to the Director through sign-off by the following individuals: DERR district office manager; the assigned attorney; Remedial Response Section manager, and DERR's chief.

- (4) The enforcement coordinator will make a copy of the Decision Document to be journalized and will enter it into the Director's Journal Log.
- (5) Once the final Decision Document is journalized, the signed and stamped original will be returned to the enforcement coordinator who will keep a copy and will distribute one copy of the final Decision Document to the assigned attorney and the records management officer, and signed and stamped original along with two copies to the district office (*i.e.*, district office, PRP and information repository).
- (6) Once signed by the Director, the site coordinator, enforcement coordinator, or the assigned attorney will draft the public notice using the attached template for the Decision Document Public Notice (Attachment B) and contact PIC. The site coordinator, enforcement coordinator, or assigned attorney (whoever authors the narrative) will transmit the final public notice to the Administration Section via e-mail for processing. The Administration Section will fax the notice to the appropriate newspapers and e-mail a copy to the Office of Legal Services for publishing in the Weekly Review. Public notice will follow procedures contained in "Procedures for Public Notice of Remedial Response Site Activities" (DERR-00-RR-033). The notice will be a WordPerfect document in an Arial font with

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twelve (12) point lettering, full justification and single spaced. The public notice must be published in the newspaper of largest circulation in the county in which the site is situated and in the Weekly Review.

- (7) The public notice will include sufficient information to clearly explain the contents of the Decision Document. The notice will inform the public of the appeal process.
- (8) The site coordinator will place the final Decision Document in the administrative record files at a location near the site, with copying facilities nearby.
- (9) The final Decision Document will be incorporated into any administrative or judicial orders for remedial action (*i.e.*, for RD/RA).

(C) Modification or Amendment to Decision Documents

- (1) If it becomes necessary to change a Decision Document, the site coordinator may recommend a modification (*i.e.*, similar to an Explanation of Significant Difference per the NCP) or an amendment (*i.e.*, similar to a Record Of Decision Amendment per the NCP) . The district office will recommend which process will be used in consultation with the assigned attorney. Generally, when there is a significant change to the remedy, but not a fundamental alteration with respect to scope, performance or cost, the change will be handled as a modification. If there is a fundamental alteration of the basic features of the remedy, it will be handled as an amendment. More detailed guidance on how to determine which is the appropriate action may be found in *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and other Remedy Selection Decision Documents* (EPA 540-R-98-031, OSWER 9200.1-23P, PB98-963241, July 1999)
 - (a) A Decision Document Modification will be drafted by the site coordinator and approved by the DERR district office manager and/or the district chief.
 - (i) The Decision Document Modification will be routed to DERR's chief, with attached sign-off sheet through the following individuals: DERR district office manager and/or district chief; assigned attorney; and Remedial Response Section manager.
 - (ii) Once signed by DERR's chief, the Administration Section will publish a notice of availability of the Decision Document Modification using the attached template (Attachment C). Public notice will follow procedures contained in "Procedures for Public Notice of Remedial Response Site

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Activities" (DERR-00-RR-033). The notice will be a WordPerfect document in an Arial font with twelve (12) point lettering, full justification and single spaced.

(iii) The public notice will provide sufficient information to provide a clear explanation of the modification to the Decision Document including a side-by-side comparison of the original and the modified selected remedy.

(iv) The enforcement coordinator will keep one copy and distribute one copy of the Decision Document Modification to the assigned attorney and the records management officer, and the original along with two copies to the district office (*i.e.*, district office, PRP and information repository). The official record is kept by the district office.

(b) The site coordinator will produce a proposed Decision Document Amendment and ultimately an Amended Decision Document including a side-by-side comparison of the original and the amended selected remedy with a new analysis using the eight evaluation criteria for approval by the DERR district office manager and/or the district chief.

(i) Once signed by the DERR district office manager and/or district chief, the proposed Decision Document Amendment will follow the procedures outlined in (A)(1) through (8) making note of the proposed amendment.

(ii) Following the consideration of public comment, the Amended Decision Document will be prepared as outlined in (B)(1) through (9) making note of the amendment.

ATTACHMENT A

[county name] County

PUBLIC NOTICE

**Ohio EPA Issues Preferred Plan for
[site name], [city], Ohio;
Public Meeting to be held**

On [date], Ohio EPA issued a Preferred Plan concerning the [site name] located at [address] in [city], Ohio ([county name] County). The Preferred Plan summarizes the history of the site and the investigation of contamination at the site, provides an analysis of the feasibility of remedial alternatives, and outlines Ohio EPA's preferred alternative for remediation.

The site [one to two sentences on the site, it's usage, and the contamination]. The preferred alternative includes: [briefly list each element of the preferred alternative].

Ohio EPA will hold a public meeting on [day of the week], [date], to answer questions and to accept comments on the Preferred Plan. The public meeting will begin at [time] at the [name of building/location] located at [address] in [city]. The public meeting will begin with an information session during which Ohio EPA will present a summary of the Preferred Plan and answer questions. After the information session the public can submit oral or written comments for the record regarding the Preferred Plan.

In addition, Ohio EPA will accept written comments through [at least 7 days beyond the date of the public meeting]. Anyone may submit written comments on the Preferred Plan by writing to: [Site coordinator name], Site coordinator, Ohio EPA, [DO name] district office, [address], [city], Ohio [zip code]. Comments can also be faxed to [Site coordinator name] at [DO fax number] or e-mailed to [him/her] at [Site coordinator e-mail address]. Ohio EPA will consider all comments submitted during the public comment period before taking a final action.

A copy of the Preferred Plan has been provided to the [library or other location], located at [address], [city]. The Preferred Plan and related documents are available for review at Ohio EPA's [DO name] district office by calling [DO main DERR number] for an appointment, [or via the internet on the [DO name] district office website at [URL]].

ATTACHMENT B

[county name] County

PUBLIC NOTICE

**Ohio EPA Finalizes Decision Document for
[site name], [city], Ohio**

On [date], Ohio EPA finalized a Decision Document identifying the selected alternative to remediate contamination at the [site name] located at [address] in [city], Ohio ([county name] County).

The site [one to two sentences on the site, it's usage, and the contamination]. The selected alternative includes: [briefly list each element of the selected alternative].

On [date], Ohio EPA issued a Preferred Plan that outlined Ohio EPA's preferred alternative to remediate contamination at the Site. A public meeting was held [date], during which public comments on the Preferred Plan were accepted. In addition, written comments on the Preferred Plan were accepted through [date]. The comments received by the Agency during the comment period are addressed in the Responsiveness Summary attached to the Decision Document.

A copy of the Decision Document has been provided to the [library or other location], located at [address] in [city]. The Decision Document and related materials are available for review at Ohio EPA's [DO name] district office, located at [address] in [city], by calling [DO main DERR number] to set up an appointment.

The effective date of this final action is [date]. This action of the Director of the Ohio EPA is final and may be appealed to the Environmental Review Appeals Commission (ERAC) pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A copy of the appeal must be served upon the Director of the Ohio EPA within three (3) days of filing at the ERAC. The ERAC is located at 309 South Fourth Street, Suite 222, Columbus, Ohio 43215.

ATTACHMENT C

[county name] County

PUBLIC NOTICE

**Ohio EPA Issues Modification to Decision Document for
[site name], [city], Ohio**

On [date], Ohio EPA issued a Modification to the [date] Decision Document concerning the [site name] located at [address] in [city], Ohio ([county name] County). The Decision Document identifies the selected alternative to remediate contamination at the [site name]

The site [one to two sentences on the site, it's usage, and the contamination]. The preferred alternative includes: [briefly list each element of the preferred alternative].

A copy of the Modification to the [date] Decision Document has been provided to the [library or other location], located at [address], [city]. The Preferred Plan, Decision Document and Modification to the Decision Document and related documents are available for review at Ohio EPA's [DO name] district office by calling [DO main DERR number] for an appointment, [or via the internet on the [DO name] district office website at [URL]].