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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

IN THE MATTER OF:)
)
 Algoma Landfill)
 Kewaunee County)
 Ahnapee, Wisconsin)
)
 Algoma Hardwoods, Inc.)
 Algoma Lumber Co.)
 City of Algoma)
 Champion International Corp.)
 Dumman Realty, Inc.)
 Plumbers Woodwork Division,)
 Olsonite Corporation)
 Wisconsin Label, Corp.)
)
 RESPONDENTS,)
)
 Proceeding under Section 122(a))
 and (d) (3) of the Comprehen-)
 sive Environmental Response,)
 Compensation, and Liability)
 Act of 1980, as amended.)
)

ADMINISTRATIVE ORDER
BY CONSENT RE: REMEDIAL
INVESTIGATION AND
FEASIBILITY STUDY

U.S. EPA Docket No.

V-W- '87-C-036

The United States Environmental Protection Agency ("U.S. EPA"), the Wisconsin Department of Natural Resources ("WDNR") and the Respondents have each agreed to the making and entry of this Administrative Order by Consent ("Consent Order").

I. JURISDICTION

A. This Consent Order is issued pursuant to the authority vested in the President of the United States by Section 122(a) and (d) (3) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 ("CERCLA"), and delegated to the Administrator of the U.S. EPA on January 29, 1987, by Executive Order 12580, 52 Federal Register 2923, and further delegated to the

Assistant Administrator for Solid Waste and Emergency Response and the Regional Administrators by U.S. EPA Delegation No. 14-14-C on February 26, 1987. This Consent Order is also issued pursuant to the authority vested in the WDNR by Section 144.442(8) & (9), Wisconsin Statutes.

B. The U.S. EPA, WDNR and Respondents agree to undertake all actions required by the terms and conditions hereunder. The Respondents consent to and will not contest or legally challenge the issuance of this Consent Order or the U.S. EPA's or WDNR's jurisdiction regarding this Consent Order.

C. Although the Respondents consent to jurisdiction for purposes of this Consent Order, neither such consent, nor anything in this document, shall constitute evidence or be an admission by Respondents of any legal or factual matter set forth herein. By signing this Consent Order, Respondents do not admit, accept, or acknowledge any liability or fault with respect to conditions at the Facility or with respect to any matter arising from the Facility. Furthermore, by signing this Consent Order, Respondents do not waive, other than as to enforcement of the terms of this Consent Order, any claim or defense that they might raise, including but not limited to issues of jurisdiction, individually or collectively, in any proceeding brought by the U.S. EPA, WDNR or any other person or entity.

II. NOTICE OF ACTION

A. U.S. EPA has notified all potentially responsible parties that it has identified as of the date of entry of this Consent Order of this action and has provided them with the names

and addresses of potentially responsible parties ("PRPs"), the volume and nature of substances contributed by each of them, and a ranking by volume of the substances at the Facility, to the extent such information is available, pursuant to Section 122(e) of CERCLA.

B. U.S. EPA has notified the Federal Natural Resource trustee of this action pursuant to the requirements of Section 122(j) of CERCLA.

III. PARTIES BOUND

A. This Consent Order applies to and binds the following (the "Parties"):

- (1) U.S. EPA, through the Director, Waste Management Division, Region V;
- (2) WDNR, through the Secretary;
- (3) the following persons as defined in Section 101(21) of CERCLA, herein referred to as the "Respondents":

Algoma Hardwoods, Inc.
Algoma Lumber Co.
City of Algoma
Champion International Corp.
Dumman Realty, Inc.
Plumbers Woodwork Division,
Olsonite Corporation
Wisconsin Label, Corp.; and

- (4) the successors and assignees of the Respondents.

B. The undersigned representative of the U.S. EPA, WDNR and each Respondent certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Order and to execute and legally bind such party to this document.

C. No change in ownership, corporate, or partnership status shall in any way alter the status or responsibility of the

Respondents under this Consent Order. The Respondents shall each be responsible for carrying out all actions required of the Respondents under this Consent Order. In all contracts, Respondents shall require that its contractors, consultants, firms and other persons or entities acting under or for them with respect to matters included herein comply with the terms of this Consent Order.

IV. STATEMENT OF PURPOSE

A. In entering into this Consent Order, the mutual objectives of the U.S. EPA, WDNR and the Respondents are:

- (1) to conduct a remedial investigation (RI) to determine the nature and extent of the release or threatened release, if any, of hazardous substances, pollutants or contaminants at or from the Facility, and
- (2) to perform a feasibility study (FS) based on the findings of the RI to identify and evaluate alternatives for the appropriate extent of remedial action, if any, to prevent or mitigate the migration or the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Facility, and
- (3) to conduct the activities identified above employing sound scientific, engineering and construction practices consistent with the National Oil and Hazardous Substances Pollution Contingency Plan ("National Contingency Plan"), 40 C.F.R. Part 300, Subpart F, as amended, and CERCLA, as amended.

B. The activities conducted pursuant to this Consent Order are subject to approval by the U.S. EPA. In any circumstances where the U.S. EPA must grant approval of Respondents' activities under this Consent Order, the U.S. EPA may consult with the WDNR before granting such approval. Final responsibility for such approval, however, rests solely with the U.S. EPA.

V. FINDINGS OF FACT

Based on information available on the effective date of this Consent Order, the Director, Waste Management Division, of the U.S. EPA, Region V, and the Secretary of the WDNR make the following findings:

A. The "Facility" encompasses at least 7 acres of land in a larger parcel of approximately 38.5 acres, which is located in the SE 1/4 of the SE 1/4 of the NW 1/4, and the NE 1/4 of the NE 1/4 of the SW 1/4 of Section 32, T25N, R25E, within the Town of Ahnapee, Kewaunee County, Wisconsin. The Facility is approximately 3 miles southwest of Algoma, Wisconsin.

B. The Facility is a part of an abandoned gravel pit and was operated as a landfill from 1969 to 1983. The landfill accepted municipal, commercial and industrial wastes. The landfill ceased accepting wastes on February 28, 1983 due to reaching capacity and has been clay capped and seeded since closure all in accordance with review by WDNR. The landfill was licensed by the WDNR.

C. According to a December 5, 1983 report by Brey, Stuewe and Bruan, Inc., an engineering firm retained by the City of Algoma to assist in the filing of abandonment plans with the WDNR, property outside of the licensed 7 acres were used for landfilling by the City. The WDNR ordered that areas outside of the permitted 7 acres be closed and properly abandoned.

D. In November 1980, six groundwater monitoring wells were installed by Soil Testing Service of Wisconsin, Inc. The borings outside of the landfill area encountered primarily sands, sandy

gravels, cobbles and boulders. Some borings outside of the landfill perimeter encountered assorted refuse. The depth of refuse within the landfill was found to be approximately 18 feet. Brown silty sand was encountered beneath the refuse.

E. According to an April 9, 1981 letter from the WDNR to the City of Algoma, the WDNR found that the groundwater around the Facility is contaminated. The WDNR stated that the groundwater flow is towards the southeast and the depth to groundwater is perhaps only slightly greater than the depth to the fill base.

F. On August 14, 1984, Ecology and Environment Inc. (E&E), a U.S. EPA contractor, conducted a site inspection at the Facility. E&E sampled the monitoring wells and based upon the sample results, the U.S. EPA determined that the groundwater downgradient from the Facility is contaminated with hazardous substances, as defined in Section 101(14) of CERCLA, including, but not limited to, the following:

<u>Contaminant</u>	<u>Highest Conc.</u>	<u>Well Location</u>	<u>Drinking Water Std.</u>
Arsenic	15 ppb	B-4	50 ppb
Cadmium	2.4 ppb	B-4	10 ppb
Lead	3.5 ppb	B-4	50 ppb
Benzene	3.9 ppb	B-9	5 ppb
Xylenes (total)	15 ppb	B-9	---

G. According to the E&E site inspection report, the City of Algoma is serviced by groundwater as their drinking water supply. Their wells are screened from 500 feet to 1300 feet. The report also states that there are approximately 180 people within a one mile radius of the Facility that are serviced by private drinking water wells that are greater than 100 feet deep.

H. Based on results of both U.S. EPA and WDNR investigations, the Facility was scored under the Hazard Ranking System and subsequently placed on the National Priorities List (NPL) by U.S. EPA.

I. Duman Realty is the past and present owner of the Facility. Each of the remaining Respondents arranged for disposal, or transport for disposal, of substances subject to CERCLA. The City of Algoma also operated the Facility from 1969-1983.

VI. CONCLUSIONS OF LAW

Based upon information available on the effective date of this Consent Order, the Director, Waste Management Division, of the U.S. EPA, Region V, and the Secretary of the WDNR make the following conclusions of law:

A. The Algoma Landfill is a "facility" as defined in Section 101(9) of CERCLA and a "site or facility" as defined in Section 144.442(1)(d), Wisconsin Statutes.

B. From 1969 until or about 1983, "hazardous substances" as defined in Section 101(14) of CERCLA and Section 144.01(4m), Wisconsin Statutes, were deposited, stored, disposed of, placed, or located at the Facility.

C. Each Respondent is a "person" as defined in Section 101(21) of CERCLA and Section 144.01(9m), Wisconsin Statutes.

D. Each Respondent is potentially liable pursuant to Section 107 of CERCLA, subject to available defenses, and a potentially responsible party for the purposes of Section 122 of CERCLA and Section 144.442, Wisconsin Statutes, for the reasons set forth in Article V of this Consent Order.

VII. DETERMINATIONS

Based on the foregoing Findings of Fact and Conclusions of Law, the Director, Waste Management Division, of U.S. EPA, Region V, has determined that:

A. Respondents will promptly and properly take appropriate response action at the Facility by conducting a Remedial Investigation and Feasibility Study ("RI/FS") and are qualified to perform the RI/FS; and

B. The actions required by this Consent Order are in the public interest and are consistent with the National Contingency Plan, 400 CFR Part 300, as amended, and with CERCLA.

VIII. WORK TO BE PERFORMED

A. All work to be performed under this Consent Order shall be under the direction and supervision of a registered professional engineer, qualified geologist or remedial project manager/on-scene coordinator as defined in the National Contingency Plan, 40 C.F.R. Part 300, as amended. Prior to the initiation of work at the Facility, the Respondents shall notify the U.S. EPA and WDNR, in writing, of the name, title, and qualifications of the proposed engineer or geologist, and of the names of principal contractors and/or subcontractors proposed to be used in carrying out the work to be performed pursuant to this Consent Order. Selection of any such engineer or geologist or contractor and/or subcontractor shall be subject to approval by the U.S. EPA in consultation with the WDNR. The U.S. EPA shall not unreasonably withhold such approval and shall notify the Respondents promptly in writing of any disapproval.

B. Attachment I to this Consent Order provides a Scope of Work ("SOW") for the completion of the RI/FS which is incorporated into and made a part of this Consent Order.

C. The following work shall be performed:

1. Within one hundred five (105) calendar days of the effective date of this Consent Order, the Respondents shall submit a work plan to the U.S. EPA and WDNR for a complete Remedial Investigation and Feasibility Study (hereinafter RI/FS Work Plan). The RI/FS Work Plan shall be developed in conformance with the SOW, the standards set forth in Section 121 of CERCLA, U.S. EPA "Guidance on Remedial Investigations Under CERCLA", dated May 1985, as amended (the "RI Guidance") and U.S. EPA "Guidance on Feasibility Studies Under CERCLA", dated April 1985, as amended (the "FS Guidance"), and any additional guidance documents provided by U.S. EPA. If additional guidance documents are provided by U.S. EPA later than thirty (30) days before the due date of the draft RI/FS Work Plan, then Respondents shall have an appropriate extension of time to enable them to review such documents and bring the draft RI/FS Work Plan into conformance therewith.

2. The RI/FS Work Plan submittal shall include, but not be limited to, the following project plans: (1) a sampling plan; (2) a health and safety plan; (3) a plan for satisfaction of permitting requirements; (4) a quality assurance project plan; (5) provisions for the preparation of an endangerment assessment plan (or substitute as may be described in the SOW); and (6) a schedule for implementation of RI/FS tasks and submission of

RI/FS reports. The RI/FS Work Plan shall provide, at a minimum, for the submittal of a preliminary and final Remedial Investigation Report, to be prepared in accordance with the RI Guidance, and a preliminary and final Feasibility Study Report, to be prepared in accordance with the FS Guidance.

3. The RI/FS Work Plan shall be subject to review, modification, and approval by the U.S. EPA in consultation with the WDNR.

4. Within forty-five (45) calendar days of receipt of the RI/FS Work Plan, the U.S. EPA Project Coordinator shall notify the Respondents, in writing, of approval or disapproval of the RI/FS Work Plan, or any part thereof. In the event that a longer review period is required, the U.S. EPA Project Coordinator shall notify the Respondents of that fact within 30 calendar days of receipt of the Work Plan. In the event of any disapproval, the U.S. EPA shall specify, in writing, any deficiencies and required modifications to the RI/FS Work Plan.

5. Unless a determination pursuant to Article XIX provides otherwise, within thirty (30) calendar days of receipt of any U.S. EPA RI/FS Work Plan disapproval, the Respondents shall submit a revised RI/FS Work Plan to the U.S. EPA and the WDNR which incorporate the U.S. EPA modifications.

6. In the event of final U.S. EPA disapproval of the RI/FS Work Plan, U.S. EPA, WDNR and Respondents reserve their respective rights and defenses as provided for in Article XXIII.

7. The Respondents shall proceed promptly to implement the work detailed in the RI/FS Work Plan if and when the RI/FS Work

Plan is fully approved by the U.S. EPA. Unless otherwise directed by the U.S. EPA, Respondents shall not commence field activities until approval by the U.S. EPA of the RI/FS Work Plan. The fully approved RI/FS Work Plan shall be deemed incorporated into and made an enforceable part of this Consent Order. All work pursuant to this Consent Order shall be conducted in accordance with the National Contingency Plan, the RI Guidance and the FS Guidance and the requirements of this Consent Order, including the standards, specifications and schedule contained in the RI/FS Work Plan.

IX. PLANS AND REPORTS

A. The Respondents shall provide a preliminary and final Remedial Investigation Report and Feasibility Study Report and any other plans or reports required by the RI/FS Work Plan to the U.S. EPA and the WDNR according to the schedule contained in the RI/FS Work Plan.

B. The U.S. EPA and the WDNR shall review these plans. The U.S. EPA shall approve or disapprove the preliminary and final Remedial Investigation Report, the preliminary and final Feasibility Study Report and any other preliminary or final plans or reports specified in the RI/FS work plan as requiring U.S. EPA approval.

C. EPA shall use its best efforts to review such plans and reports within forty-five (45) calendar days of receipt. In the event more time is required for review, EPA will notify Respondents within forty-five (45) days of receipt of the plan or report. If the U.S. EPA, in consultation with the WDNR, dis-

approves any preliminary or final plan or report, the U.S. EPA shall specify, in writing, any deficiencies and required modifications and the Respondents shall submit a revised plan or report to the U.S. EPA within forty-five (45) days of receipt of such written notice or such longer period as the U.S. EPA Project Coordinator may establish, which plan or report shall incorporate any U.S. EPA modifications or additions.

D. In the event of subsequent disapproval of any revised plan or report, the U.S. EPA, WDNR and Respondents reserve their respective rights and defenses as provided for in Article XXIII.

E. The Respondents shall provide monthly written progress reports to the U.S. EPA and the WDNR according to the schedule contained in the RI/FS Work Plan. At a minimum, these monthly written progress reports shall include the following:

1. All results of sampling and tests and all other raw data produced during the month pursuant to implementation of this Consent Order and relating to the Facility;
2. A description of activities completed during the past month, as well as such actions, data, and plans which are scheduled for the next month; and
3. Target and actual completion dates for each element of activity, including the project completion, and an explanation of any deviation from the schedules in the RI/FS Work Plan schedule.

F. The monthly written progress reports shall be submitted to the U.S. EPA and the WDNR by the tenth business day of each month following the date of commencement of the work detailed in the RI/FS Work Plan.

X. ADDRESS FOR ALL CORRESPONDENCE

Documents, including reports, approvals, disapprovals and other correspondences to be submitted pursuant to this Consent Order shall be sent by certified mail or an overnight delivery service having the capability to document its deliveries to the following addresses, or to such other addresses as the Respondents, the WDNR or the U.S. EPA may hereafter designate in writing:

- A. Documents to be submitted to the U.S. EPA should be sent to: (5 copies)

Daniel J. Cozza
Algoma Landfill
Remedial Project Manager
Hazardous Waste Enforcement Branch (SHE-12)
U.S. Environmental Protection Agency
Region V
230 S. Dearborn Street
Chicago, Illinois 60604

- B. Documents to be submitted to the WDNR should be sent to: (5 copies)

Mark Giesfeldt
Unit Supervisor
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, Wisconsin 53707-7921

- C. Documents to be submitted to the Respondents should be sent to a name and address to be designated by the Respondents within ten (10) days of the effective date of this Consent Order.

XI. ADDITIONS AND/OR MODIFICATIONS TO WORK

A. In the event that the U.S. EPA, the WDNR or the Respondents determine that additions or modifications to planned work, including remedial investigatory work and/or engineering evaluations, are necessary or appropriate to accomplish the objectives of the RI/FS, notification of such additions or modifications shall be provided to each of the other Parties.

B. Any additional work or modifications determined to be necessary or appropriate by the Respondents shall be subject to approval by the U.S. EPA in consultation with the WDNR.

C. Any additional work or modifications approved by the U.S. EPA, or determined to be necessary by the U.S. EPA in consultation with the WDNR, shall be completed by Respondents in accordance with the standards, specifications, and schedule determined or approved by the U.S. EPA in consultation with the WDNR. Revisions to schedules of performance in the RI/FS Work Plan shall be made where appropriate to accommodate such modifications or additional work.

XII. COMPLIANCE WITH APPLICABLE LAWS

All work undertaken pursuant to this Consent Order shall be performed in compliance with all applicable Federal, State and local laws and regulations, including all Occupational Health and Safety Administration and Department of Transportation regulations.

XIII. ACCESS

A. To the extent that the Facility or other areas where work is to be performed hereunder is presently owned by parties other than those bound by this Consent Order, the Respondents shall obtain, or shall use their best efforts to obtain, access agreements from the present owners within thirty (30) calendar days of approval of the RI/FS Work Plan. Such agreements shall provide access for the U.S. EPA, the WDNR and authorized representatives of the U.S. EPA and the WDNR, as specified below. In

the event that such access agreements are not obtained within the time referenced above, the Respondents shall so notify the U.S. EPA and the WDNR. The U.S. EPA reserves the right to terminate this Consent Order should the Respondents' inability to gain access to the Facility or other areas materially affect the Respondents' ability to perform the work required herein.

B. If, despite Respondents' best efforts to obtain access under this provision, Respondents are unable to obtain access necessary to carry out the terms of this Consent Order, U.S. EPA, Region V, agrees to recommend that the Agency's authority under Section 104(e) of CERCLA be exercised to secure such access on behalf of Respondents. This agreement shall be subject to the following: (1) Agency guidance, including, but not limited to guidance entitled "Entry and Continued Guidance under CERCLA," dated June 5, 1987; (2) consultation with U.S. EPA's Office of Enforcement and, to the extent necessary, concurrence by the Department of Justice; and (3) agreement by the Respondents to cooperate with U.S. EPA in the exercise of this authority. U.S. EPA reserves the right to terminate this Consent Order, should the inability to gain access materially affect Respondents' ability to perform work required herein.

C. Authorized representatives of the U.S. EPA and the WDNR shall be allowed access to the Facility and other areas by the Respondents, and as part of any agreement obtained under paragraph A above, for purposes including, but not limited to: inspecting records, operating logs and contracts related to the Facility; reviewing the progress of the Respondents in carrying

out the terms of this Consent Order; conducting such tests, inspections, and sampling as the U.S. EPA, in consultation with the WDNR, may deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the data submitted to the U.S. EPA and the WDNR by the Respondents hereunder. The Respondents shall permit such authorized representatives to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, which pertain to performance under this Consent Order, subject to Paragraph C of Article XV of this Consent Order. Respondents may assert and are not required to allow access to or provide copies of any materials or information which are entitled to attorney-client or attorney work product privilege. All persons with access to the Facility pursuant to the Consent Order shall comply with approved health and safety plans.

D. Nothing herein shall be construed as restricting the inspection or access authority of the U.S. EPA or the WDNR under any law or regulation.

XIV. PROJECT COORDINATORS

A. On or before the effective date of this Consent Order, the U.S. EPA, the WDNR and the Respondents shall each designate a Project Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of this Consent Order. The U.S. EPA Project Coordinator will be the U.S. EPA designated representative at the Facility. To the maximum extent possible, communications between the Respondents, the WDNR and the U.S. EPA, and all documents, reports, approvals and other correspon-

dences concerning the activities performed pursuant to the terms and conditions of this Consent Order, shall be directed through the Project Coordinators. During implementation of the RI/FS Work Plan, the Project Coordinators shall, whenever possible, operate by consensus and shall attempt in good faith to resolve disputes informally through discussion of the issues.

B. The U.S. EPA, the WDNR and the Respondents shall each have the right to change their respective Project Coordinators. Such a change shall be accomplished by notifying the other party in writing at least ten (10) calendar days prior to the change.

C. The U.S. EPA Project Coordinator shall have the authority vested in an On-Scene Coordinator and a Remedial Project Manager (OSC, RPM) by the National Contingency Plan, 40 CFR Part 300, as amended, including the authority to halt, conduct, or direct any work required by this Consent Order, or to direct any response action undertaken by the U.S. EPA when conditions at the Facility may present an imminent and substantial endangerment to the public health or welfare or the environment. In the event that the U.S. EPA Project Coordinator halts work pursuant to this paragraph, the Respondents shall obtain a commensurate modification of the schedule or work described in the RI/FS Work Plan and this Consent Order unless such work stoppage was due to Respondents' failure to properly comply with the terms of this Consent Order or with health, safety or environmental laws or regulations. Where the U.S. EPA Project Coordinator halts work pursuant to this paragraph and such work stoppage is due to Respondents' failure to properly comply with the terms of this

Consent Order or with health, safety or environmental laws or regulations, the Respondents may request a modification of the schedule of work described in the RI/FS Work Plan and this Consent Order.

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

E. The Project Coordinator for the Respondents or the Coordinator's designee shall be on-site or available on call during all hours of site work and shall be on call during the pendency of this Consent Order.

XV. SAMPLING AND DATA/DOCUMENT AVAILABILITY

A. U.S. EPA, WDNR and Respondents shall make the results of all sampling and/or tests or other data generated by them, or on their behalf, pursuant to implementation of this Consent Order, available to each other. Respondents shall submit results in written monthly progress reports as required by Article IX of this Consent Order.

B. At the request of the U.S. EPA, WDNR, or the Respondents, split or duplicate samples shall be provided to the other Parties of any samples collected pursuant to implementation of this Consent Order subject to sufficiency of the sampling media. U.S. EPA, WDNR and the Respondents shall notify each other at least five (5) calendar days in advance of any sample collection activity, provided, however, that if five (5) days advance notice of sample collection activity is not possible, U.S. EPA, WDNR and Respondents shall give such advance notice as possible to enable each Party to have a representative present during said sample collection activity.

C. Pursuant to applicable Federal laws and regulations, (Section 104(e) of CERCLA and 40 CFR Part 2 and Section NR 2.19, Wis. Adm. Code), the Respondents may assert a confidentiality claim with respect to any or all of the information requested or submitted pursuant to the terms of this Consent Order. Such an assertion must be adequately substantiated when the assertion is made. Analytical data and other information described in Section 104(e)(7)(F) of CERCLA shall not be claimed as confidential by the Respondents. Information determined to be confidential by the U.S. EPA in accordance with applicable federal laws and regulations will be afforded the full protection provided by such laws and regulations. Information determined to be confidential by WDNR pursuant to applicable state laws and regulations will be afforded the full protection provided by such laws and regulations. If no confidentiality claim is timely made concerning information when it is submitted to the U.S. EPA and the WDNR, or if information claimed as confidential is determined in accordance with applicable laws and regulations not to be confidential, the information may be made available to the public by the U.S. EPA or the WDNR.

XVI. QUALITY ASSURANCE

A. The Respondents shall use quality assurance, quality control, and chain of custody procedures in accordance with U.S. EPA "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans" QAMS-005-80 (U.S. EPA, 1980c), or any mutually agreeable alternative, throughout all data collection activities.

B. The Respondents shall consult with the U.S. EPA and WDNR Project Coordinators in planning for, and prior to, all sampling and analysis as detailed in the RI/FS Work Plan. In order to provide quality assurance and maintain quality control with respect to all samples collected pursuant to this Consent Order, the Respondents shall:

1. Ensure that the U.S. EPA and WDNR personnel and/or the U.S. EPA and WDNR authorized representatives are allowed access during operating hours to any laboratories and personnel utilized by the Respondents for analyses:

2. Ensure that all sampling and analyses are performed according to U.S. EPA methods or other methods deemed satisfactory by the U.S. EPA; and

3. Ensure that any laboratories utilized by the Respondents for analyses participate in a quality assurance/quality control program equivalent to that which is followed by the U.S. EPA, and which is consistent with U.S. EPA document QAMS-005-80. As part of such a program, and upon request by the U.S. EPA, such laboratories shall perform analyses of samples provided by the U.S. EPA or the WDNR to demonstrate the quality of analytical data for each such laboratory.

XVII. FORCE MAJEURE

A. The Respondents shall cause all work to be performed within the time limits set forth herein, unless performance is delayed by events which constitute a force majeure. For purposes of this Consent Order, a "force majeure" is an event beyond the control of the Respondents which cannot be overcome by due dili-

gence and which delays performance of any obligation required by this Consent Order, which may include, but are not limited to, Acts of God, delays caused by U.S. EPA or WDNR or delays in obtaining access which occur notwithstanding compliance with Article XIII. Increases of costs shall not be considered circumstances beyond the control of the Respondents.

B. The Respondents shall notify the U.S. EPA and the WDNR verbally no later than two (2) business days after Respondents discover or should have known that a force majeure has occurred. Written confirmation must be sent within five (5) business days of the original notice. Such notification shall describe the anticipated length of the delay, the cause or causes of the delay, the measures taken and to be taken by the Respondents to minimize the delay, and the timetable by which Respondents intend to implement these measures. The Respondents shall have the burden of demonstrating that the event is a force majeure.

C. If the U.S. EPA, in consultation with the WDNR, agrees that a delay is attributable to a force majeure, the time period for performance under this Consent Order may be extended for the time period attributable to the event constituting the force majeure. U.S. EPA shall promptly provide Respondents with its written decision concerning whether the events constituted a force majeure after receiving notification from Respondents pursuant to Paragraph B above.

XVIII. STIPULATED PENALTIES

A. Respondents shall be liable for payment into the Hazardous Substances Response Trust Fund administered by the U.S. EPA of the sums set forth below as stipulated penalties for each full week that Respondents fail to submit the draft and final RI/FS Work Plans, the draft and final RI reports and the draft and final FS reports in accordance with the requirements contained in this Consent Order, unless U.S. EPA determines that such delay is attributable to a force majeure as defined in Article XVII above. EPA shall consider any information submitted by Respondents accounting for a late submission before making a demand for payment. Such sums shall be due and payable within fifteen (15) days of receipt of notification from the U.S. EPA assessing the penalties. These stipulated penalties shall accrue in the amount up to a maximum of \$1,000.00 for the first full week, and up to a maximum of \$2,000.00 for each full week thereafter.

B. The stipulated penalties set forth in Paragraph A of this Article shall not preclude the U.S. EPA or the WDNR from electing to pursue any other remedy or sanction because of the Respondents' failure to comply with any of the terms of this Consent Order, including a suit to enforce the terms of this Consent Order, but any stipulated penalty paid shall apply toward any other penalty or sanction awarded. Said stipulated penalties shall not preclude the U.S. EPA or the WDNR from seeking statutory penalties up to the amount authorized by law in the event of Respondents' failure to comply with any requirements of this Consent Order.

XIX. DISPUTE RESOLUTION

A. The Parties, acting through their Project Coordinators, shall, whenever possible, operate by consensus. The Project Coordinators shall use their best efforts in good faith to resolve all disputes or differences of opinion informally. If, however, disputes arise concerning this Consent Order which the Parties are unable to resolve informally, the Respondents shall present a written notice of such dispute to the U.S. EPA and the WDNR, which shall set forth specific points of dispute, the position of the Respondents and the technical basis therefor and any actions which the Respondents consider necessary.

B. Within ten (10) calendar days of receipt of such a written notice, the U.S. EPA shall provide a written response to the Respondents setting forth its position and the basis therefor. During the five (5) business days following receipt of the response, the U.S. EPA, the WDNR and the Respondents shall attempt to negotiate in good faith a resolution of their differences.

C. Following the expiration of the time periods described in Paragraph B above, if the U.S. EPA concurs with the position of the Respondents, the Respondents and the WDNR shall be so notified in writing and this Consent Order shall be modified to include any necessary extensions of time or variances of work. If the U.S. EPA does not concur with the position of the Respondents, the U.S. EPA shall resolve the dispute, based upon and consistent with the terms of this Consent Order, and shall provide written notification of such resolution to the Respondents.

D. The pendency of dispute resolution set forth in this Article shall not affect the time period for completion of work and/or obligations to be performed under this Consent Order, except that upon mutual agreement of the U.S. EPA, upon consultation with the WDNR, and Respondents, any time period may be extended not to exceed the actual time taken to resolve the dispute. Elements of work and/or obligations not affected by the dispute shall be completed in accordance with the schedule contained in the RI/FS Work Plan.

E. Upon resolution of any dispute, whether informally or using the procedures in this Article, any additions or modifications required as a result of such dispute resolution shall immediately be incorporated, if necessary, into the appropriate plan or procedure and into this Consent Order. The Respondents shall proceed with all remaining work according to the modified plan or procedure.

XX. COMMUNITY RELATIONS AND PUBLIC COMMENT

The Respondents shall cooperate with the U.S. EPA and the WDNR in providing RI/FS information to the public. U.S. EPA shall use its best efforts to notify Respondents' Project Coordinator prior to issuing press releases regarding this Consent Order and the RI/FS although Respondents have no authority to affect the contents thereof. As requested by the U.S. EPA or the WDNR, the Respondents shall participate in the preparation of all appropriate information disseminated to the public and in public meetings which may be held or sponsored by

the U.S. EPA or the WDNR to explain activities at or concerning the Facility, including the findings of the RI/FS.

XXI. RECORD PRESERVATION

The Respondents agree to preserve, during the pendency of this Consent Order, and for a minimum of five (5) years after termination of this Consent Order, all records and documents in the possession of the Respondents which relate in any way to the Facility. In all contracts, Respondents shall require their contractors, consultants, firms and other persons or entities acting under or for them with respect to matters under this Consent Order to comply with the requirements of this Article. Upon request by the U.S. EPA or the WDNR, the Respondents shall make available to the U.S. EPA or the WDNR such records, or copies of any such records, subject to Paragraph C of Article XV of this Consent Order.

XXII. CERCLA FUNDING

This Consent Order does not constitute any decision on preauthorization of funds under Section 111(a)(2) of CERCLA.

XXIII. RESERVATION OF RIGHTS

A. Except as provided in Article XXXIII, the Parties reserve all rights and defenses that they may have pursuant to any available legal authority.

B. Nothing herein, except as provided in Article XXXIII, shall waive the right of the U.S. EPA to enforce this Consent Order, or for U.S. EPA or WDNR to take action pursuant to CERCLA or to take any other action pursuant to any other available legal

authority. In addition, U.S. EPA reserves the right, following thirty (30) days written notice to the Respondents, to undertake the work that is the responsibility of Respondents under this Consent Order or to enforce the terms of the Consent Order if the Respondents fail satisfactorily to perform the tasks required of them under this Consent Order by the end of the thirty (30) day notice period. If U.S. EPA conducts any work that is the responsibility of Respondents under this Consent Order, it cannot also commence or maintain an action to compel Respondents to conduct work already completed by U.S. EPA in a manner consistent with this Consent Order.

C. The U.S. EPA reserves the right to undertake any removal, remedial and/or response actions relating to the Facility and to seek recovery from the Respondents for any costs incurred in undertaking such actions. The Parties further recognize that, except as provided in Articles XXIX and XXXIII, this Consent Order and the successful completion and approval of the RI/FS do not represent satisfaction, waiver, release or a covenant not to sue of any claim of the United States or the State of Wisconsin relating to the Facility, including claims to require Respondents to undertake response actions beyond those required by this Consent Order and to seek reimbursement of response costs pursuant to Section 107 of CERCLA.

D. Nothing herein is intended to release, discharge, or in any way affect any claims, causes of action or demands in law or equity which the parties may have against any person, firm, partnership or corporation not a party to this Consent Order for

any liability it may have arising out of, or relating in any way to, the generation, storage, treatment, handling, transportation, release or disposal of any materials, hazardous substances, hazardous wastes, contaminants, or pollutants at, to, or from the Facility. The parties to this Consent Order expressly reserve all rights, claims, demands, and causes of action they have against any and all other persons and entities who are not parties to this Consent Order, and as to each other for matters not covered hereby.

E. The U.S. EPA and the WDNR recognize that the Respondents may have the right to seek contribution, indemnity and/or any other available remedy against any person found to be responsible or liable for contribution, indemnity or otherwise for any amounts which have been or will be expended by the Respondents in connection with the Facility including but not limited to claims against insurance carriers.

F. Nothing herein shall be construed to release the Respondents from any liability for failure of the Respondents to perform the RI/FS in accordance with the RI/FS Work Plan attached hereto and incorporated herein, except that, where U.S. EPA completes any work that is the responsibility of Respondents under this Consent Order, its recourse against Respondents shall be limited to the recovery of costs, penalties and punitive damages, if appropriate, to which U.S. EPA is entitled under CERCLA or under this Consent Order for such work.

G. Nothing herein is intended to be a release or settlement of any claim for personal injury or property damage by any person not a party to this Consent Order.

XXV. REIMBURSEMENT OF COSTS

A. At the end of each twelve (12) month period beginning with the effective date of this Consent Order, the U.S. EPA and the WDNR shall submit an accounting to the Respondents of all costs incurred to which U.S. EPA and the WDNR are entitled under CERCLA or applicable state law in performing activities in connection with this Consent Order during the previous twelve (12) month period including, but not limited to, the costs incurred by the U.S. EPA in having a qualified person oversee the conduct of this RI/FS pursuant to Section 104(a) of CERCLA. Within thirty (30) calendar days of receipt of each such accounting, the Respondents shall remit a check to the U.S. EPA and the WDNR for the full amount of their respective costs. However, in no event shall the amount to be reimbursed to WDNR exceed \$30,000. Payment of disputed amounts shall be held in abeyance pending resolution of any disputes under this Article pursuant to Article XIX. Interest on payments held in abeyance shall also be paid, at the rates provided for by Section 104(a) of CERCLA, should U.S. EPA prevail in the dispute.

B. Payment to the U.S. EPA for its aforesaid costs shall be made to the order of the Hazardous Substance Response Trust Fund forwarded to the U.S. EPA, Superfund Accounting, P.O. Box 371003M, Pittsburgh, Pennsylvania 15251, Attn: Superfund Collection Office. Copies of all payments to the U.S. EPA shall be provided at the time of such payments to the U.S. EPA Project Coordinator and to: U.S. EPA, Region V, SWER Branch, Attention: Ms. Isalee Coleman, Office of Regional Counsel, 5CS-TUB-3, 230 South Dearborn Street, Chicago, Illinois 60604.

C. Payment to the WDNR for its aforesaid costs shall be payable to the Wisconsin Department of Natural Resources, and forwarded to: Wisconsin Department of Natural Resources, Bureau of Solid Waste Management, SW/3, Environmental Response and Restoration Unit, P.O. Box 7921, Madison, Wisconsin, 53707-7921. A copy of the transmittal letter and check shall be sent to the WDNR Project Coordinator.

D. The U.S. EPA and the WDNR reserve the right to bring an action against the Respondents for recovery of any past and future costs incurred by the United States or the State of Wisconsin and not reimbursed pursuant to this Consent Order to which U.S. EPA and WDNR are entitled under CERCLA or other applicable legal authority, in connection with any response activities conducted or to be conducted at the Facility, other than those response activities successfully completed pursuant to Article XXIX of this Consent Order.

**XXVI. INDEMNIFICATION OF THE UNITED STATES
AND STATE OF WISCONSIN**

A. The Respondents agree to indemnify and save and hold harmless the United States Government and the State of Wisconsin Government, their agencies, departments, agents, and employees, from any and all claims or causes of action arising from, or on account of, acts or omissions of the Respondents, their officers, employees, receivers, trustees, agents, or assigns, in carrying out the activities pursuant to this Consent Order. Respondents shall not be responsible for liability arising from the intentional misconduct or negligent acts or omissions of employees or agents of the U.S. EPA or WDNR.

B. Neither the U.S. EPA nor the WDNR is a party to any contract involving the Respondents at the Facility.

C. If an entity indemnified under this Article receives a notice of a claim or action covered by such indemnity, it shall provide reasonable notice to the Respondents of any such claim or action and the Respondents will have the right to join in the defense of all claims or causes of action within the scope of the indemnification. No settlement of an indemnified claim shall be agreed to by an indemnified entity without first providing reasonable notice to Respondents.

XXVII. EFFECTIVE DATE

This Consent Order shall become effective upon the date U.S. EPA sends Respondents a fully executed Consent Order by certified mail, return receipt requested, which date shall be specified on the last page of this agreement.

XXVIII. SUBSEQUENT AMENDMENT

In addition to the procedures set forth elsewhere in this Consent Order, this Consent Order may be amended by mutual agreement of the U.S. EPA, the WDNR and the Respondents. Any amendment of this Consent Order shall be in writing, signed by the U.S. EPA, WDNR and Respondents and shall specify an effective date.

XXIX. TERMINATION AND SATISFACTION

A. The provisions of this Consent Order shall be deemed satisfied, and the obligations of Respondents under it shall cease, upon receipt by the Respondents of written notice from the

U.S. EPA that the Respondents have demonstrated that all of the terms of this Consent Order, including any additional work, modifications or amendments, have been completed in accordance with the terms hereof to the satisfaction of the U.S. EPA in consultation with the WDNR. Such written notice shall not be unreasonably withheld or delayed.

B. Any negative determination transmitted by the U.S. EPA under Paragraph A above shall set forth the manner in which the work has not been satisfactorily completed. The Respondents shall have a reasonable opportunity to respond to any alleged deficiencies and to correct any deficiencies.

C. At any time before receipt of the written notice specified in Paragraph A above, U.S. EPA shall advise Respondents, upon request, of (i) the status of its review of work performed by Respondents under this Consent Order, (ii) the expected release date of the written notice described in Paragraph A above, and (iii) the status of U.S. EPA's record of decision for the Facility.

D. Where U.S. EPA completes any work that is the responsibility of Respondents under this Consent Order, Respondents' obligation to perform such work shall terminate subject to the provisions of Article XXIII.

XXX. SELECTION OF REMEDIAL ACTION ALTERNATIVE

After approval of the FS final report, the U.S. EPA shall provide Respondents with, consistent with Section 122(e) of CERCLA, an opportunity to comment prior to the selection of the final remedial action plan for the Facility that is consistent

with CERCLA. Selection of the final remedial action plan shall be made by U.S. EPA, in consultation with WDNR, in accordance with the requirements of CERCLA.

XXXI. OTHER POTENTIALLY RESPONSIBLE PARTIES

The U.S. EPA intends to review information pertaining to other PRPs within the limits of U.S. EPA resources, as determined by the U.S. EPA, and may when appropriate and consistent with U.S. EPA policy, as determined by the U.S. EPA, send such PRP's information requests and/or notice letters under Section 104(e) of CERCLA. When sufficient information, as determined by the U.S. EPA, exists to notify PRPs, the U.S. EPA shall do so and shall make reasonable efforts to do so and add, consistent with CERCLA, such parties to its list of PRPs for purposes of negotiating the final remedial action alternative at the Facility.

XXXII. CONTRIBUTION

U.S. EPA, WDNR and Respondents intend that this Consent Order will control and be dispositive of the Respondents' duties and liabilities pertaining to the conduct of the RI/FS at this Facility. It is further the Parties' intent that upon satisfactory completion of the RI/FS, the Respondents shall not be liable to other potentially responsible parties (PRPs) or parties not

signatories to this Consent Order for claims of contribution for amounts to which Article XXXIII applies.

XXXIII. COVENANT NOT TO SUE

From the date of this Consent Order, for as long as the terms herein are complied with, and upon termination and satisfaction of this Consent Order pursuant to Section XXIX of this Consent Order, the U.S. EPA and WDNR covenant not to sue the Respondents for the performance of the RI/FS, when satisfactorily performed under this Consent Order, including the cost thereof, and for actual costs reimbursed to the U.S. EPA and the WDNR under this Consent Order.

IT IS SO AGREED:

BY: *Michael E. Blum* 12/30/87
Algoma Hardwoods, Inc. Date

BY: *Robert Rosen* 12/30/87
Algoma Lumber Co. Date

BY: *Th. J. Cona* 12/30/87
City of Algoma Date

BY: *Champion International Corp.* 12/30/87
Champion International Corp. Date

BY: *Dumman Realty, Inc.* 12/30/87
Dumman Realty, Inc. Date

BY: *Laurie E. Jones* 12/30/87
Plumbers Woodwork Division, Date
Olsonite Corporation

BY: *Wisconsin Label, Corp.* 12/30/87
Wisconsin Label, Corp. Date

IT IS SO ORDERED AND AGREED:

BY: Kathryn Curtner 1/6/88
 Kathryn Curtner
 Assistant Administrator
 Division of Enforcement
 for the Secretary
 Wisconsin Department of Natural Resources
 Date

BY: Basil Constantelos 1/21/88
 Basil Constantelos
 Director, Waste Management Division
 U.S. Environmental Protection Agency, Region V
 Date

EFFECTIVE DATE: 1/28/88

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ATTACHMENT 1

SCOPE OF WORK

FOR A

REMEDIAL INVESTIGATION/FEASIBILITY STUDY

**ALGOMA LANDFILL
KEWAUNEE COUNTY
AHLNAPEE, WISCONSIN**

SCOPE OF WORK

FOR A

REMEDIAL INVESTIGATION (RI)

ALGOMA LANDFILL
KEWAUNEE COUNTY
AHNAPEE, WISCONSIN

PURPOSE

The purpose of this Remedial Investigation is to determine the nature and extent of the contamination at the Site and to gather all necessary data to support the feasibility study. A phased, iterative approach will be used to complete the Tasks described in the following statement of work. The Respondents will furnish all personnel, materials and services necessary for performing the remedial investigation at the Algoma Landfill hereinafter referred to as the "site." (The term "site" in this Scope of Work has the same meaning as the term "Facility" in the Administrative Order by Consent.)

SCOPE

The Remedial Investigation consists of eight tasks:

- Task 1 - Description of Current Situation
- Task 2 - Plans and Management
- Task 3 - Site Investigation
- Task 4 - Preliminary Remedial Technologies
- Task 5 - Site Investigation Analyses
- Task 6 - Remedial Investigation Report
- Task 7 - Community Relations Support
- Task 8 - Additional Requirements

GUIDANCE

The Remedial Investigation shall be performed in conformance with the guidance provided in the following documents:

USEPA. Guidance on Remedial Investigations Under CERCLA. EPA/540/G-85/002, June 1985.

USEPA. Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans. QAMS-005/80, December 1980.

USDHHS. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities. October 1985.

USEPA. Standard Operating Safety Guides. November 1984.

USEPA. Interim Policy on Procedures for Planning and Implementing Off-Site Response Actions. 50 FR 45933. November 5, 1985.

Other guidance as specified by the U.S. EPA under the terms of the Administrative Order by Consent.

TASK 1 - DESCRIPTION OF CURRENT SITUATION

The Respondents shall describe the background information pertinent to the site and its potential problems and outline the purpose and need for Remedial Investigation at the site. The data gathered during any previous investigations or inspections and other relevant data should be used whenever practical.

- a. Site Background
Prepare a summary of the regional location, pertinent area boundary features, and general site physiography, hydrology and geology. The total area of the site will be defined, as well as the general nature of the problem, including pertinent history relative to the use of the site for hazardous waste disposal and their interrelations.
- b. Nature and Extent of Problem
Prepare a summary of the actual and potential on-site and off-site health and environmental effects. This may include, but is not limited to, the type, physical state and amount of hazardous substances, the existence and conditions of the landfills, excavation depths, base grades, amount of fill, affected media and pathways of exposure, contaminated releases such as leachate or runoffs and any human exposure. Describe any reports of human or animal related illnesses that may be related to the site. Emphasis should be placed on describing the threat or potential threat to public health. Data from previous site work and reports should be summarized with references listed.
- c. History of Response Actions
Prepare a summary of any previous response actions conducted by either local, state, Federal or private parties, including site inspections, other technical reports and their results. A list of reference documents and their location shall be included. The scope of the RI/FS should be developed to address the problems and questions that have resulted from the previous work at the site.
- d. Site Visit
Conduct an initial site visit to become familiar with site topography, access routes and proximity of receptors to possible contamination and collect data

for preparation of the site safety plan. The visit should be used to verify the site information developed in Task 1.

- e. Define Boundary Conditions
Establish site boundary conditions to limit the areas of site investigations. The boundary conditions should be set so that subsequent investigations will cover the contaminated media in sufficient detail to support the activities that follow (e.g., the feasibility study). The boundary conditions may also be used to identify boundaries for site access control and site security. [If not in existence, a fence or other security measures may be installed as an initial remedial measure].
- f. Site Maps
Prepare a site map showing all wetlands, floodplains, water features, drainage patterns, tanks, buildings, utilities, paved areas, easements, rights-of-way and other features. The site maps and all topographical surveys should be of sufficient detail and accuracy to locate and report work performed to date within or near the site. Consideration will also be given to potential remedial investigation activities and, when possible, to potential remedial actions within or near the site. Permanent baseline monument bench marks and reference grid tied into any existing reference system (i.e., State or USGS) should be included. A recommended scale is one (1) inch equal to 200 feet.
- g. Site Office
If agreed to by U.S. EPA and the State, establish a temporary site office to support site work.
- h. Contractor Procurement
Prepare contractor procurement documents and award subagreement to secure the services necessary to conduct the remedial investigation and feasibility study.

TASK 2 - PLANS AND MANAGEMENT

Prepare all necessary plans for the remedial investigation. The workplan shall include the Description of Current Situation (Task 1) and the Preliminary Remedial Technologies (Task 4) in order to properly explain the technical approach proposed in the workplan. The work plan should include a detailed discussion of the technical approach, personnel requirements and schedules, as well as the following:

a. Site Investigation Plan

A Site Investigation Plan shall be prepared to address all field activities to obtain additional site data. The plan will contain a statement of sampling objectives; specification of equipment, analyses of interest, sample types, sample locations and frequency, and schedule. The plan must address all levels of the investigations as well as all types of investigations considered. Consideration should be given to the use of field screening techniques to screen out the samples that do not require off-site laboratory analysis. The plan will identify associated data that may be needed to evaluate alternatives for the feasibility study. The Site Investigation Plan will also include a Quality Assurance Project Plan (QAPP).

The Quality Assurance Plan (QAPP) will be submitted to and approved by the U.S. EPA in consultation with the Wisconsin Department of Natural Resources (WDNR) prior to the start of the Remedial Investigation at the Site. The purpose of the QAPP is to ensure that formal procedures are available for all activities affecting the quality of data collected.

The Quality Assurance Plan (QAPP) will be prepared according to the guidelines in, "Interim Guidelines and Specifications for preparing Quality Assurance Project Plans", U.S. EPA, 29 December 1980, including the following:

1. Title page with provisions for approval signatures,
2. Table of contents,
3. Project description,
4. Project Quality Assistance, (QA) organization and responsibility,
5. QA objectives for measurement data in terms of precision, accuracy, completeness, representativeness and comparability for each parameter,
6. Sampling procedures,
7. Chain of custody procedures,
8. Calibration procedures and frequency,
9. Analytical procedures, including methods verification and standard operating procedures,
10. Data reduction, validation and reporting,

11. Internal quality control checks and frequency,
12. Performance and system audits and frequency,
13. Preventive maintenance procedures and schedules,
14. Specific routine procedures to be used to assess data precision, accuracy, and completeness of specific measurement parameters involved,
15. Corrective action, and
16. Quality assurance reports to management.

b. Data Management Plan

A Data Management Plan shall be developed and initiated to document and track investigation data and results. The plan should identify and set up laboratory and data documentation materials and procedures, project file requirements and project-related progress.

c. Health and Safety Plan (HSP)

Preparation of the Health and Safety Plan is the responsibility of the Respondents. The Respondents, their contractors and respective employees must comply with the HSP. The Health and Safety Plan shall be submitted to the U.S. EPA and WDNR for review prior to the start of the Remedial Investigation. The purpose of the HSP is to assure that qualified personnel will be conducting the Remedial Investigation and to minimize the risks to personnel from chemical and physical hazards during the course of work. The plan will be consistent with:

- Section 111(c)(6) of CERCLA.
- 29 CFR 1910. Occupational Safety and Health Standards, as amended.
- U.S. EPA. Standard Operating Safety Guides. November 1984.
- USDHHS/NIOSH. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities. October 1985.
- Other U.S. EPA guidance as provided, consistent with terms of the Administrative Order by Consent.
- State safety and health statutes.
- Site conditions.

The HSP should include the following items:

- Minimum training and medical requirements for on-site personnel,
- Health and Safety responsibilities,
- Work zone definitions,
- General work rules,
- Contingency plans in case of accident or injury,
- Environmental monitoring and sampling procedures, interpretation and response,
- Decontamination procedures for personnel and equipment,
- Health related information for identified chemicals of concern,
- Site security measures, and
- Procedures for protecting third parties, such as visitors or the surrounding community.

d. Community Relations Plan

The U.S. EPA shall develop a plan addressing community relations as specified under Task 7 of this scope of work. Respondents' involvement in community relations shall be consistent with Article XX of the Administrative Order by Consent.

e. ATSDR Health Assessment

The Work Plan for the site shall also provide for collection of adequate information to support an Agency Toxic Substances and Disease Registry (ATSDR) Health Assessment which is required by SARA. Since the Health Assessment will be prepared by ATSDR, all draft Work Plans and support documents shall be submitted by the U.S. EPA to ATSDR for review and comment to ensure that their needs and requirements are being met. In the event that the Health Assessment has already been completed by ATSDR, the RI report should include and address the findings of that report.

f. Feasibility Study

Prepare a plan incorporating the elements contained in the FS section of this Scope of Work.

TASK 3 - SITE INVESTIGATIONS

The Respondents shall conduct those site remedial investigations necessary to characterize the site and its actual or potential hazard to public health and the environment. The site investigation should also result in data or adequate technical content to assess preliminary remedial alternatives developed in Task 4 and support the detailed evaluation of alternatives during the Feasibility Study. Schedules for the site investigation and corresponding field work shall be established in such a fashion as to take into account variations in weather.

The goals of the site investigation are:

- Characterize the chemical nature of wastes at the site to the extent needed for evaluation and selection of remedial alternatives;
- Define any identifiable contaminant sources at the site;
- Determine the vertical and horizontal extent of contamination originating at the site;
- Spatially quantify contamination to the extent necessary to enable preparation of an Endangerment Assessment and a FS to the extent that such contamination may be attributable to the site;
- Identify contaminant migration pathways and movement; and
- Quantify public health and environmental risk.

The site investigation activities will follow the plans set forth in the Work Plan. All sample analyses will be conducted at laboratories following EPA protocols or their equivalents. Strict chain-of-custody procedures will be followed and all sample locations will be identified on the site map and grid systems established under Task 1.

The U.S. EPA and WDNR believe the subtasks listed below are consistent with satisfying the goals above. The Work Plan developed pursuant to the Administrative Order may propose alternate methods of achieving the goals of the Site Investigation. Where an alternate method meets the purposes and requirements of this SOW, the replacement of the original method will be included. As specified in the Administrative Order, U.S. EPA retains approval authority over the initial Work Plan and any additions or modifications thereto.

a. Waste Characterization

Develop and conduct a program to characterize the waste materials at the site. Where possible, leachate from the site shall also be characterized. The waste materials in the landfill will be characterized, including those disposed of below the ground. Efforts should begin with a survey of existing documents and any other data relating to types of waste materials accepted at the site, and previous sampling episodes performed and their results. The Work Plan (Task 2) shall describe how the characterization will be performed. The characterization should support any subsequent conclusions about developing preliminary remedial alternatives.

Additional sampling may be required should the available information be insufficient to characterize the waste materials to the extent needed to evaluate and select remedial alternatives. The Site Investigation Plan and QAPP will need to describe the sampling analysis techniques appropriate to the site condition.

Where appropriate, in-field testing and analysis may be used to characterize the nature and extent of waste materials. The investigation will focus on VOCs and attempt to establish distribution of hazardous substances in the landfill (i.e., "hot spot" identification). The nature and quality of the landfill's cover will also be evaluated in order to assess potential containment remedial alternatives.

The number of samples needed to obtain representative data will also be discussed. Elements of the HSP and the QAPP plan will also apply to sampling.

b. Hydrogeologic Investigation

Develop and conduct a program to determine the present and potential extent of groundwater contamination within the sand and gravel aquifer and within the bedrock aquifer and to evaluate the suitability of the site for on-site containment systems and/or selective treatment/removal of waste materials or the applicability of the no-action alternative. Efforts should begin with a survey of previous hydrogeologic studies and other existing data. The survey should address the degree of hazard, the mobility of pollutants considered (from Waste Characterization), the soils attenuation capacity and mechanisms, discharge/recharge areas, porosities, regional and local flow direction and quality and the effects of any remedial alternatives described in Task 4. Such information may be available from the USGS, the Soil Conservation Service, and local well drillers.

Subsequent to the survey of existing data, a sampling program should be developed to determine the horizontal and vertical distribution of contaminants to the extent needed to evaluate remedial alternatives. The sampling program should include, but not be limited to, the evaluation of factors affecting groundwater characteristics, such as groundwater direction, existence of fractured bedrock conditions, existence of groundwater mounds, divides or old river channels, thickness of the aquifer(s), and interconnection between aquifers. Cross-section diagrams and contour maps must be drawn. The following must also be included in the sampling program and be in accordance with the QAPP: determination of upgradient levels of contaminants within the sand and gravel aquifer and within the bedrock aquifer, the type of well construction utilized (must be compatible with contaminants encountered), the number and location of wells, chain of custody and record of samples and the groundwater sampling method.

Geophysical techniques should be considered for use in defining subsurface conditions and design of the sampling program. The investigation shall also assess whether municipal, private, and/or industrial wells in the vicinity could be affected by contaminants from the site.

The first phase of the RI will focus on confirming the nature of potential hazardous substance releases and potential impacts to immediate receptors. The second phase of the RI will address extent if the first phase indicates that hazardous substance(s) have been released. The Phase 1 data will also be used to properly focus on investigation of extent (e.g., horizontal extent greater or less than 2,500 feet, vertical extent limited to unconsolidated sediment or do hazardous substances reach bedrock aquifer).

c. Soils and Sediments Investigation

Develop and conduct a program to determine the extent of contamination of surface and subsurface soils in and around the site and sediments within any nearby water bodies which may have been affected by the site. This process may overlap with certain aspects of the hydrogeologic study (e.g., characteristics of soil strata are relevant to both the transport of contaminants by groundwater and to the location of contaminants in the soil; cores from groundwater monitoring wells may serve as soil samples). A survey of existing data on soils and sediments may be useful. A sampling program should be developed and conducted to determine the horizontal and vertical extent of contaminated soils and sediments based on the findings of the Description of the Current Situation (Task 1). The

first phase of the RI will focus on soils and sediment in the 4,500-foot-long drainage swale that leads from the site to Silver Creek and on soils and sediments between the site and the wetland immediately to the south and southeast and including sediment in the wetland itself.

Information regarding local background levels, degree of hazard, location of samples, techniques utilized, and methods of analysis should identify the locations and probable quantities of subsurface wastes, such as buried drums, through the use of appropriate geophysical methods. This work will be in accordance with the QAPP and Sampling Plan.

d. Surface Water Investigation

Conduct a program to determine the extent of contamination, if any, reaching Silver Creek. This process may overlap with the soils and sediments and the hydrogeological investigations. A survey of existing data on surface water flow quantity and quality may be a useful first step, particularly information on local background levels, location and frequency of samples, sampling techniques and methods of analysis. If Silver Creek is found to be contaminated, the investigation should assess whether indigenous biota are affected by the wastes. All sampling activities should be in accordance with the QAPP and Sampling Plan.

The first phase of the RI will focus on the 4,500 feet of overland flow pathway between the site and Silver Creek. The second phase of the RI will evaluate Silver Creek if data from the overland flow pathway or data from the hydrogeologic investigation suggest that hazardous substances may be migrating to Silver Creek. The first phase of the RI will also address the wetlands approximately 1,000 feet to the east and southeast of the site to determine whether hazardous substances have reached the wetlands from the site through either groundwater or overland pathways.

e. Air Investigation

Conduct a program to determine the extent of atmospheric contamination. The program should address the tendency of the substances identified through the waste characterization to enter the atmosphere, local wind patterns and the degree of hazard. The work will follow the specifications of the QAPP and Sampling Plan.

The first phase of the RI will utilize air monitoring measurements made under the Health and Safety Plan during the course of other field investigations under Tasks 3a, 3b, and 3c to assess the current degree of

hazard. The tendency of hazardous substances identified under Task 3a to enter the atmosphere will be based on theoretical considerations.

The Respondent shall submit a technical memorandum to the U.S. EPA and WDNR for subtasks within Task 3. Two sets of technical memoranda will be produced. The first memorandum will include:

- Description of the subject activities.
- A plot of actual sampling locations along with corresponding sample numbers.
- All sample identification information.
- Photocopies of all pertinent field notes.

This technical memorandum is to be submitted no later than two weeks after the subtask's field work is completed. Five (5) copies should be sent to Dan Cozza, U.S. EPA, and five (5) copies to Mark Giesfeldt, WDNR.

The second technical memorandum will discuss the finding of the first phase RI activities and will recommend what, if any, second phase activities are required to meet the goals of the RI.

This technical memorandum will be submitted no later than five (5) weeks after receipt of analytical data for each subtask. Five (5) copies shall be sent to Dan Cozza, U.S. EPA, and five (5) copies to Mark Giesfeldt, WDNR.

TASK 4 - PRELIMINARY REMEDIAL TECHNOLOGIES

The Respondents will identify preliminary remedial technologies providing detail sufficient to ensure that site investigations will develop a data base adequate for the evaluation of alternatives during the Feasibility Study.

a. Pre-Investigation Action

Prior to collecting additional data, the Respondents will assess site conditions to determine potential categories of source control and/or off-site remedial actions. Criteria for off-site remedial actions can be found in EPA Interim Policy: "Procedures for Planning and Implementing Off-Site Response Actions" (50 Federal Register 45933. November 5, 1985). Examples of questions to be answered are:

1. Source Control Action

- i. What containment techniques appear feasible to prevent contamination of groundwater?

- ii. Does incineration or reclamation appear to be a viable option?
- iii. Does on-site treatment appear to be a viable option, and if so, what category of treatment should be investigated (e.g., biological, physical, chemical, thermal)?
- iv. Will substances migrate or continue to migrate off-site if no action is taken? If only source control measures are taken?

2. Off-Site Action

- i. Does the apparent volume of contaminated groundwater make investigation or treatment impracticable?
- ii. What technologies are available to treat the identified contaminants at the site?
- iii. What technologies exist to effectively remove off-site contaminated materials?
- iv. Will the off-site contamination continue to pose a threat if no action is taken?

The U.S. EPA and WDNR will review and screen the preliminary technologies during the course of the Work Plan review so that the site investigation can be designed to answer these types of questions and support the Feasibility Study.

b. Post-Investigation Evaluation

Either during or following the site investigation, Respondents will assess the investigation results and recommend preliminary remedial technologies likely to apply to the site problem. These technologies should be a refinement of the options considered in Task 4a. They will provide the basis for developing detailed alternatives during the Feasibility Study. The work during the Remedial Investigation will generally be limited to the following:

- 1. Recommending types of remedial technologies appropriate to the site conditions.
- 2. Recommending whether or not to remove some or all of the waste for off-site treatment, storage, or disposal.

3. Determining the compatibility of groups of wastes with other wastes and with materials considered as part of potential remedial action (e.g., slurry walls, lagoon liners). Recommending alternatives for treatment, storage or disposal for each category of compatible waste.

TASK 5 - SITE INVESTIGATIONS ANALYSIS

The Respondents 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 and quantity to support the Feasibility Study. The summary shall be presented to the U.S. EPA and WDNR as a draft Remedial Investigation report. Comments on the draft will be addressed in the final document.

The results and data from all site investigations must be organized and presented logically so that the relationships between site investigations for each medium are apparent.

a. Data Analysis

Analyze all site investigation data and develop a summary of the type and extent of contamination at the site. The summary should describe the quantities and concentration of a specific chemical at the site and ambient levels surrounding the site. Also describe the number, location, and types of nearby populations, activities and pathways that may result in an actual or potential threat to public health, welfare or the environment.

b. Application in Preliminary Technologies

Analyze the results of the site investigations in relation to the preliminary remedial technologies developed in Task 4. Data supporting, or rejecting, types of remedial technologies, compatibility of wastes and construction materials and other conclusions will be presented.

TASK 6 - REMEDIAL INVESTIGATIONS REPORTS

The Respondents shall prepare a draft report covering the remedial investigation phase and submit five (5) copies to Dan Cozza, U.S. EPA, and five (5) copies to Mark Giesfeldt, WDNR.

The draft report shall include the results of Tasks 1 through 5, and should include additional information in an appendix. The report shall be structured to enable the reader to cross-reference with ease. Comments from the EPA and WDNR, compiled by the U.S. EPA, will be incorporated into the Final RI Report, of which copies shall be submitted to the U.S. EPA and WDNR as mentioned above.

TASK 7 - COMMUNITY RELATIONS SUPPORT

A Community Relations Plan for the Algoma Landfill is required. The Community Relations Plan will be developed by the U.S. EPA. The plan will describe the history of community concern at this site and identify proposed community relations activities to be implemented during the Remedial Investigation and Feasibility Study. The Respondents will be given the opportunity to review the plan prior to its implementation.

The Respondents may be required to furnish the personnel, services, materials and equipment required to undertake a community relations program. Although this may be a limited program, community relations must be integrated closely with all remedial response activities. The objectives of this effort are to achieve community understanding of the actions taken and to obtain community input and support prior to selection of the remedial alternative(s).

TASK 8 - ADDITIONAL REQUIREMENTS

a. Reporting Requirements

In addition to such task reports required by U.S. EPA and WDNR, monthly reports shall be prepared by the Respondents to describe the technical progress of the project. These reports should discuss the following items:

1. Identification of site activity.
2. Status of work at the site and progress to date.
3. Percentage of completion.
4. Difficulties encountered during the reporting period.
5. Actions being taken to rectify problem.
6. Activities planned for the next month.
7. Changes in personnel.

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

Five (5) copies of the monthly progress report should be sent to Dan Cozza, U.S. EPA, and five (5) copies to Mark Giesfeldt, WDNR.

SCOPE OF WORK
FOR A
FEASIBILITY STUDY (FS)

ALGOMA LANDFILL
KEWAUNEE COUNTY
AHLAPEE, WISCONSIN

PURPOSE

The purpose of this Remedial Investigation/Feasibility Study is to develop and evaluate remedial alternatives for the Algoma Landfill. The Respondents shall furnish the necessary personnel, materials, and services required to prepare the Remedial Investigation/Feasibility Study, except as otherwise specified herein.

SCOPE

The Feasibility Study consists of seven tasks:

- Task 9 - Description of Current Situation and Proposed Response
- Task 10 - Development of Alternatives
- Task 11 - Initial Screening of Alternatives
- Task 12 - Laboratory Studies
- Task 13 - Evaluation of the Alternatives
- Task 14 - Reports
- Task 15 - Additional Requirements

GUIDANCE

USEPA. Guidance on Feasibility Studies under CERCLA.
EPA/540/G-85/003. June 1985.

USEPA. Interim Policy on Procedures for Planning and Implementing Off-Site Response Actions. 50 FR 45933. November 5, 1985.

USEPA. Interim Guidance on Compliance with Other Applicable or Relevant and Appropriate Requirements. 52 FR 32495. August 27, 1987.

Other guidance as specified by the U.S. EPA under the terms of the Administrative Order by Consent.

A Work Plan that includes a detailed technical approach and schedules shall be submitted for the proposed Feasibility Study.