UNITED STATES

ENVIRONMENTAL PROTECTION AGENCY

REGION III

IN THE MATTER OF:	)	FINAL ADMINISTRATIVE ORDER ON CONSENT
Appalachian Timber Services, Inc.	)	U.S. EPA Docket No. RCRA-III-086-CA
Old Fairgrounds Sutton, West Virginia	)	
RESPONDENT	)	
EPA I.D. No. WVD 06 346 1958	)	Proceeding under Section 3008(h) of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. Section 6928(h).

FINAL ADMINISTRATIVE ORDER ON CONSENT

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FINAL ADMINISTRATIVE ORDER ON CONSENT

The Parties to this Final Administrative Order on Consent ("Consent Order" or "Order"), the United States Environmental Protection Agency ("EPA") and Appalachian Timber Services Inc. ("ATS" or "Respondent"), having agreed to entry of this Consent Order, it is therefore ordered and agreed that:

I. JURISDICTION

This Consent Order is issued pursuant to the authority vested in the Administrator of the EPA by Section 3008(h) of the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984 ("RCRA"), 42 U.S.C. Section 6928(h). The authority vested in the Administrator has been delegated to the Regional Administrators by EPA Delegation Nos. 8-31 and 8-32 dated March 6, 1986.

On May 29, 1986, the EPA granted the State of West Virginia ("State") authorization to operate a hazardous waste program in lieu of the Federal program, pursuant to Section 3006(b) of RCRA, 42 U.S.C. Section 6926(b). The State, however, does not have authority to enforce Section 3008(h) of RCRA, 42 U.S.C. Section 6938(h).

This Consent Order is issued to Respondent, the owner and

operator of a facility known as Appalachian Timber Services, Inc., Old Fairgrounds, Sutton, West Virginia. The property on which the facility is located is referred to hereinafter as the "Facility."

Respondent consents to and agrees not to contest EPA's authority to issue this Consent Order and to enforce its terms. Further, Respondent will not contest EPA's authority to: compel compliance with this Consent Order in any subsequent enforcement proceeding, either administrative or judicial; require Respondent's full or interim compliance with the terms of this Consent Order; or impose sanctions for violations of this Consent Order.

II. PARTIES BOUND

A. This Consent Order shall apply to and be binding upon EPA, Respondent and its agents, successors and assigns.

B. No change in ownership of any part of the Facility or in corporate or partnership status of the Respondent shall in any way alter, diminish, or otherwise affect Respondent's obligations and responsibilities under this Consent Order.

C. Respondent shall provide a copy of this Consent Order to Respondent's supervisory personnel responsible for implementation of the work under this Consent Order and all contractors, subcontractors, laboratories, and consultants retained to conduct and/or monitor any portion of the work performed pursuant to this Consent Order within seven (7) calendar days of the effective date of this Consent Order or the date of such retention, whichever is later. All contracts, agreements, or other arrangements with such persons shall require such persons to conduct and/or monitor the work in accordance with the requirements of this Consent Order. Notwithstanding the terms of any such contract, agreement, or arrangement, Respondent is responsible for complying with this Consent Order and for ensuring that all such persons conduct and/or monitor such work in accordance with this Consent Order. The existence of any provision or term of any contract, agreement or other arrangement requiring a contractor, subcontractor, laboratory or consultant to conduct or monitor the work in accordance with the requirements from this Consent Order shall not excuse or otherwise relieve Respondent of the obligation to comply with this Consent Order.

D. In the event of any change in ownership and/or operation of the Facility and/or in the event of any change in majority ownership or control of the Respondent, Respondent shall notify EPA in writing of the nature of any such change no later

than fifteen (15) calendar days after the effective date of such change. In addition, Respondent shall provide a copy of this Consent Order to any successor to the Respondent and/or to the subsequent operator of the Facility at least fifteen (15) calendar days prior to the effective date of such change.

III. STATEMENT OF PURPOSE

In entering into this Consent Order, the mutual objectives of EPA and Respondent are the protection of human health and/or the environment through: (1) the implementation of the corrective measures described in the Final Decision and Response to Comments, dated September 30, 1996 (collectively referred to herein as the "FDRTC"), and, if necessary, to (2) perform Interim Measures ("IM") at the Facility to prevent or mitigate threats to human health and/or the environment.

IV. FINDINGS OF FACT

A. Respondent is a corporation doing business in the State of West Virginia and is a "person" as defined in Section 1004(15) of RCRA, 42 U.S.C. §6903(15).

B. Respondent is a generator of hazardous waste and an owner/operator of a hazardous waste management facility located at the Facility. Respondent engaged in the treatment, storage, and disposal of hazardous waste at the Facility subject to the interim status requirements of 40 C.F.R. Part 265. Specifically, Respondent generated, stored, and treated wood preserving wastes in on-site surface impoundments.

C. On December 29, 1991, EPA and Respondent entered into a Final Administrative Order on Consent (the "RFI/CMS Order"), Docket Number RCRA-III-025-CA, pursuant to Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h). The RFI/CMS Order required Respondent to conduct a RCRA Facility Investigation ("RFI") and a Corrective Measure Study ("CMS") for the Facility. The RFI included an evaluation of the extent of releases of hazardous wastes and/or hazardous constituents from the Facility into soils, sediments, groundwater, and surface water. As part of the RFI, Respondent also conducted a hydrogeologic investigation to evaluate the flow of groundwater in the area of the Clay Encapsulated Disposal Area. The CMS provided an evaluation of various clean-up alternatives based on criteria set forth in the RFI/CMS Order.

D. The Findings of Fact in the RFI/CMS Order are hereby incorporated herein by reference.

E. The RFI Report submitted by Respondent concluded that there are contaminants of concern present in soil, sediment and surface water at the Facility. EPA has determined that the contaminants of concern require further remediation.

F. In 1989, the West Virginia Division of Environmental Protection (WVDEP) issued a Post-Closure Permit for a spray pond at the facility. As a requirement of the Post-Closure Permit, ATS installed a groundwater pump-and-treat system to address the groundwater contamination found in its earlier investigations. The remedial objective of the Post-Closure Permit was to contain the groundwater plume within the Facility s boundaries and recover the contaminated groundwater.

G. On August 9, 1996, EPA issued for public comment a Statement of Basis ("SB") which described and evaluated corrective measures alternatives to mitigate or eliminate releases of hazardous waste and/or hazardous constituents at and/or from the Facility and contained EPA's preliminary determination for the recommended corrective measure. The SB also concluded that actual and threatened releases of hazardous waste and/or hazardous constituents from the Facility, if not addressed by corrective action, may present a threat to human health and/or the environment. The SB and the Administrative Record for the Facility were made available to the public for a thirty (30)-day comment period. The public comment period began on August 16, 1996, and ended on September 17, 1996.

H. In the SB, EPA established media cleanup standards for the contaminants of concern in the soil and groundwater at the Facility and are hereby incorporated herein by reference.

I. The human health and environmental effects of the contaminants of concern are described in the Administrative Record supporting the issuance of this Consent Order.

J. On September 30, 1996, EPA issued a Final Decision and Response to Comments (FDRTC) which identified the remedy EPA selected and provided responses to all significant written and oral comments received during the public comment period. The FDRTC is set forth in Attachment D to the Consent Order and is incorporated herein and made part hereof.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, and after consideration of the Administrative Record supporting the issuance of this Consent Order, EPA has made the following Conclusions of Law and Determinations:

A. Respondent is a "person" within the meaning of Section 1004(15) of RCRA, 42 U.S.C. Section 6903(15).

B. Respondent is the owner and operator of a facility authorized to operate under Section [3005(e)] of RCRA, 42 U.S.C. Section 6925(e).

C. The substances referred to in Section IV.D of this Consent Order are "hazardous wastes" within the meaning of Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h).

D. There is or has been a "release of hazardous waste into the environment from a facility" within the meaning of Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h).

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

VI. WORK TO BE PERFORMED

EPA acknowledges that Respondent may have completed some of the tasks required by this Consent Order and the Respondent may have available some of the information and data required by this Consent Order. This previous work may be used to meet the requirements of this Consent Order subject to EPA's review and approval pursuant to Section VI.I of this Consent Order.

Pursuant to Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h), Respondent agrees to and is hereby ordered to perform the following acts in the manner and by the dates specified herein. All work undertaken pursuant to this Consent Order shall be developed and performed in accordance with, at a minimum: the Scope of Work for Corrective Measures Implementation ("CMI") set forth in Attachment A; the Scope of Work for a Health and Safety Plan set forth in Attachment B; the Scope of Work for Interim Measures ("IM") set forth in Attachment C; the FDRTC set forth in Attachment D; RCRA and its implementing regulations; and relevant EPA guidance documents. All Attachments to this Consent Order are incorporated herein and made a part hereof. Relevant EPA guidance documents may include, but are not limited to, the "RCRA Ground Water Monitoring Technical Enforcement Guidance Document" (OSWER Directive 9950.1, September 1986), "Test Methods For Evaluating Solid Waste" (SW-846, November 1986), "Construction Quality Assurance for Hazardous Waste Land Disposal Facilities" (EPA 530/SW-85-031, July 1986), Interim Guidelines and Specification for preparing Quality Assurance Project Plans (QAMS-05/80 December 29, 1980), and revisions thereto.

"Days" as used herein shall mean calendar days unless specifically stated otherwise.

A. CORRECTIVE MEASURE WORK PLAN AND DESIGN

1. Within sixty (60) calendar days of the effective date of this Consent Order, Respondent shall submit to EPA for approval a CMI Work Plan for expeditious implementation of the corrective measures selected by EPA in the FDRTC. The CMI Work Plan shall be developed in accordance with Attachment A of this Consent Order.

2. Within sixty (60) calendar days of receipt of EPA s approval of the CMI Work Plan, Respondent shall submit to EPA for comment a Preliminary (30%) CMI Design Report which shall be developed in accordance with Attachment A of this Consent Order. Any comments received by Respondent on the Preliminary (30%) CMI Design Report shall be incorporated into the 90% CMI Design Report submission.

3. Within sixty (60) calendar days of receipt of EPA s comments on the Preliminary (30%) CMI Design Report, Respondent shall incorporate those comments and submit to EPA for comment a (90%) CMI Design Report. The 90% CMI Design Report shall be developed in accordance with Attachment A of this Consent Order. Any comments received by the Respondent on the 90% CMI Design Report shall be incorporated into the 100% CMI Design Report submission.

4. Within forty-five (45) calendar days of receipt of EPA s comments on the 90% CMI Design Report, Respondent shall incorporate those comments and submit to EPA for approval a Final (100%) CMI Design Report. The 100% CMI Design Report shall be developed in accordance with Attachment A of this Consent Order.

5. Upon receipt by Respondent of EPA's approval of the 100% CMI Design Report, the 100% CMI Design Report shall be incorporated into and become enforceable under this Consent Order, and Respondent shall implement it in accordance with the schedules and provisions contained therein.

B. CORRECTIVE MEASURE CONSTRUCTION

1. Respondent shall commence and complete construction of the Corrective Measures selected in the FDRTC in accordance with the Scope of Work for CMI set forth in Attachment A of this Consent Order, the schedule set forth in the EPA-approved CMI Work Plan, and the EPA-approved 100% CMI Design Report.

2. Within ninety (90) calendar days of completion of construction and the preliminary period of performance monitoring as specified in the EPA-approved 100% CMI Design Report, Respondent shall submit to EPA for approval a CMI Report. The CMI Report shall be developed in accordance with Attachment A of

this Consent Order and shall describe activities performed during construction, provide actual specifications of the implemented remedy, and provide a preliminary assessment of CMI performance.

3. EPA shall determine, on the basis of the CMI Report and any other relevant information, whether the constructed project is consistent with the EPA-approved 100% CMI Design Report and whether the Corrective Measures have achieved or are achieving the media cleanup standards and all other requirements set forth in the FDRTC. If EPA determines that the constructed project is consistent with the EPA-approved 100% CMI Design Report and that the Corrective Measures have achieved or are achieving the media cleanup standards and all other requirements set forth in the FDRTC, EPA shall notify Respondent of such determination, in writing, and the CMI Report shall be considered the Final CMI Report.

4. If EPA determines that the construction project is inconsistent with the EPA-approved 100% CMI Design Report and/or that the Corrective Measures have not achieved or are not achieving the media cleanup standards or as modified in Section VI.C.2, and all other requirements set forth in the FDRTC, EPA shall notify Respondent of those activities that must be undertaken to complete the construction of the Corrective Measures and shall set forth a schedule for the completion of those activities. Respondent shall complete the activities in accordance with the schedule set forth in the EPA notification.

C. CORRECTIVE MEASURE ASSESSMENT REPORT

1. No later than February 15th of the fifth year of the effective date of this Consent Order and every five (5) years thereafter until receipt of approval by EPA of a Certificate of Completion submitted pursuant to Section VI.C.5 to 8 of this Consent Order, Respondent shall submit a Corrective Measure Five-Year Assessment Report. Such Report shall contain an evaluation of the past and projected future effectiveness of the Corrective Measure in attaining the media cleanup standards set forth in the FDRTC.

2. Respondent may, as part of a Corrective Measure Five Year Report or at any other time following EPA approval of all predesign or investigative activities required under the Work Plans, request that EPA select, for the purpose of this Consent Order, Alternative and/or Supplemental Corrective Measure(s), which may include the use of natural attenuation mechanisms, proposed changes to media cleanup standards, the use of innovative remedial technologies, no further action, a technical impracticability waiver, or other applicable changes. Specific details of the implementation of the above-referenced request shall be described in the appropriate CMI Work Plans. Any

decision by EPA to require Alternative and/or Supplemental Corrective Measures shall be made pursuant to applicable EPA regulations and/or guidance regarding selection of corrective measures under Section 3008(h) of RCRA.

3. In the event EPA selects an Alternative and/or Supplemental Corrective Measure(s) either in response to a request by Respondent pursuant to paragraph 2 immediately above, or on its own initiative, EPA may provide Respondent with a period of thirty (30) calendar days from the date Respondent receives written notice from EPA of the selection of an Alternative and/or Supplemental Corrective Measure(s) within which to reach an agreement with EPA regarding performance of Alternative and/or Supplemental Corrective Measure(s) in lieu of, or in addition to, the Corrective Measures. Any such agreement between EPA and Respondent shall be incorporated into and become enforceable under this Consent Order, and Respondent shall implement the activities required under any such agreement in accordance with any schedules and provisions contained therein.

4. Nothing in this Section VI.C shall limit EPA's authority to implement Alternative and/or Supplemental Corrective Measure(s) or to take any other appropriate action under RCRA, the Comprehensive Environmental Response, Compensation and Liability Act, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. Section 9601 et seq. ("CERCLA"), or any other legal authority, including the issuance of a unilateral administrative order or the filing of a civil action.

5. In the event that Respondent concludes that the Corrective Measures have been fully implemented and the media cleanup standards have been met, Respondent shall notify EPA in writing and request EPA s approval to discontinue the Corrective Measure(s) in accordance with Section VI.I.1 of this Consent Order. The request shall explain the basis for Respondent's conclusion and include all available documentation supporting such conclusion.

6. Upon receipt of EPA's approval of Respondent's request to discontinue all Corrective Measures, Respondent may discontinue such Corrective Measures, except that Respondent shall continue to monitor the groundwater every quarter for a three (3)-year period after the Corrective Measures have been discontinued. Respondent shall submit the results of such quarterly sampling with the Quarterly and Annual Progress Reports in accordance with Section VI.I of this Consent Order.

7. If at anytime during the three (3)-year groundwater monitoring period, EPA determines that the level of any hazardous constituent and/or hazardous waste in the groundwater has

increased above the established media cleanup standards for such hazardous constituent and/or hazardous waste, EPA may determine if Alternative and/or Supplemental Corrective Measures need to be initiated to achieve the established media cleanup standards. EPA shall notify Respondent in writing of any such determination. Any decision by EPA to require Alternative and/or Supplemental Corrective Measures shall be made pursuant to applicable EPA regulations and guidance regarding selection of corrective measures under Section 3008(h) of RCRA and shall be implemented in accordance with Section VI.C.3 and 4 of this Consent Order.

8. If after the three (3)-year groundwater monitoring period, the established media cleanup standards for groundwater have been maintained, Respondent shall submit a Certification of Completion for all corrective measures (Certification of Completion) to EPA for approval in accordance with Section VI.I.1 of this Consent Order. The Certification of Completion shall provide documentation sufficient to support a determination that media cleanup standards have been maintained and include all available documentation supporting such a determination.

D. HEALTH AND SAFETY PLAN

Concurrent with the submission of the CMI Work Plan, the Respondent shall submit to EPA a CMI Health and Safety Plan developed and/or revised in accordance with the provisions of Attachment B of this Consent Order.

E. CORRECTIVE MEASURE OPERATION AND MAINTENANCE

The Respondent shall perform the Operation and Maintenance ("O&M") activities in accordance with the timetable set forth in the EPA-approved CMI Design Report and O&M Plan described in Attachment A, and submitted pursuant to this Consent Order.

F. CONTRACTOR REVIEW

1. All work performed pursuant to this Consent Order shall be under the direction and supervision of a qualified professional with expertise in the relevant aspects of hazardous waste site investigation and remediation. Within fifteen (15) calendar days after the effective date of this Consent Order, Respondent shall submit to EPA, in writing, the names, titles, and qualifications of the professional project coordinator, engineers, geologists, contractors and subcontractors (hereinafter "contractors") to be used in carrying out the terms of this Consent Order. Within fifteen (15) calendar days of retaining any other contractors to be used in carrying out the terms of this Consent Order, Respondent shall submit to EPA, in writing, the names, titles and qualifications of any such additional contractors. Notwithstanding Respondent's selection

of any qualified contractor, nothing herein shall relieve Respondent of its obligation to comply with the terms and conditions of this Consent Order.

2. EPA shall have the right to disapprove at any time the use of any contractor selected by Respondent pursuant to paragraph 1, immediately above, and paragraph 3, immediately below. This selection shall not be subject to review under Section XV of this Consent Order ("DISPUTE RESOLUTION") or otherwise. Within fifteen (15) calendar days of receipt from EPA of a written notice disapproving the selection of any contractor, Respondent shall notify EPA, in writing, of the names, titles and qualifications of the personnel who will replace the personnel disapproved by EPA.

3. Respondent shall notify EPA at least fifteen (15) calendar days prior to replacing voluntarily a professional engineer, geologist, contractor or subcontractor to be used in carrying out the terms of this Consent Order, and shall submit to EPA the names, titles, and qualifications of replacement personnel.

G. ADDITIONAL WORK

1. EPA may determine that certain tasks and deliverables, including, but not limited to, investigatory work, or engineering evaluation, or procedure/methodology modifications, require additional work. These tasks and deliverables may or may not have been in the CMI Work Plan or other EPA-approved document(s). Furthermore, at any time during or after the implementation of the Corrective Measures specified in the FDRTC, EPA may determine that the media cleanup standards set forth in the FDRTC have not been met and/or that the continued implementation of the Corrective Measures are not likely to achieve such standards. In that event, EPA may determine that additional work is necessary to perform supplemental and/or alternative Corrective Measures pursuant to §3008(h) of RCRA, applicable EPA regulations and/or guidance.

2. EPA may request, in writing, that Respondent perform such additional work. EPA shall specify the basis and reasons for its determination that additional work is necessary.

3. Within fifteen (15) calendar days after the receipt of such request, Respondent shall have the opportunity to meet or confer with EPA to discuss the additional work. In the event that Respondent agrees to perform such additional work, Respondent shall submit to EPA for approval a work plan for the additional work. Such work plan shall be submitted within forty-five (45) days of receipt of EPA's determination that additional work is necessary, or otherwise in accordance with a later

alternative schedule established by EPA. Upon EPA's approval of a work plan, the work plan shall be incorporated into and become enforceable under this Consent Order, and Respondent shall implement it in accordance with the schedule and provisions contained therein.

4. If Respondent declines to perform the additional work, EPA reserves the right to order Respondent to perform such additional work; to perform such additional work itself and seek to recover all costs of performing such additional work from Respondent; and/or to take any other appropriate action under RCRA, CERCLA, or any other legal authority.

H. INTERIM MEASURES ("IM")/SITE STABILIZATION

1. Respondent shall continue operating the existing groundwater pump and treat system as developed pursuant to the IM described in the RFI/CMS Order at the Facility until Respondent's receipt of EPA's approval of the CMI Report in accordance with Section VI.B.3 of this Consent Order. At such time the IM will be superseded by implementation of the Corrective Measures as required by this Consent Order.

2. If at any time during the pendency of this Consent Order, Respondent obtains or discovers information concerning a release of any hazardous waste or hazardous constituent at or from the Facility into the environment in addition to or different from that described in Section IV ("FINDINGS OF FACT"), above, Respondent shall immediately notify EPA orally of such release and in writing within three (3) calendar days of providing oral notification. The notification shall describe the nature and extent of the release and any threat or potential threat to human health and/or the environment posed by such release. If EPA determines that corrective action for such release is necessary to protect human health and/or the environment, EPA shall notify Respondent. Within fifteen (15) calendar days of receipt of such notice from EPA, Respondent shall submit to EPA for approval an IM Work Plan which identifies IM which will protect human health and/or the environment from such release and which are, to the extent practicable, consistent with and integrated into the Corrective Measures set forth in the FDRTC.

3. Each IM Work Plan shall be developed in accordance with the IM Scope of Work in Attachment C to this Order. Each IM Work Plan shall document the procedures to be used by Respondent for the implementation of IM and shall include the documents listed in Attachment C including, but not limited to, design plans and specifications and a project schedule.

4. Concurrent with submission of an IM Work Plan, Respondent shall submit to EPA an IM Health and Safety Plan in accordance with Attachment B of this Consent Order.

5. Upon receipt of EPA approval of an IM Work Plan, Respondent shall implement the EPA-approved IM Work Plan in accordance with the requirements and schedules contained therein.

I. SUBMISSIONS/EPA APPROVAL

1. EPA will review documents submitted pursuant to this Consent Order (hereinafter collectively referred to as "Submissions") and will notify Respondent in writing of EPA's approval or disapproval of the Submission(s) or any part thereof (except for Health and Safety Plans and Progress Reports which will be submitted for review but not approval). In the event of EPA's disapproval, EPA shall specify in writing any deficiencies in the Submission(s). Such disapproval shall not be subject to the dispute resolution procedures of Section XV, below. Notwithstanding any notice of disapproval, Respondent shall implement, at the direction of EPA, any action required by any non-deficient portion of the Submission(s).

2. Within thirty (30) calendar days of receipt of EPA's comments on a Submission, or fifteen (15) calendar days in the case of an IM Workplan, Respondent shall submit to EPA for approval a revised Submission which responds to EPA's comments and/or corrects any deficiencies identified by EPA. In the event that EPA disapproves the revised Submission, EPA reserves the right to revise or prepare such Submission and seek to recover from Respondent the costs thereof, in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), 42 U.S.C. § 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, and any other applicable laws, and/or to take any other appropriate action under RCRA, CERCLA, or any other legal authority. Any Submission prepared by Respondent that is approved or revised by EPA under this Consent Order shall be deemed incorporated into and made an enforceable part of this Consent Order.

3. On May 15th, August 15th and November 15th of each year during which this Consent Order is effective, Respondent shall submit to EPA a Quarterly Progress Report for the first, second and third calendar quarters, respectively, which contains the information required in Attachment A.

4. On February 15th of each year during which this Order is effective, Respondent shall submit to EPA an Annual Progress Report which contains the information described in Attachment A and for the previous calendar year. Respondent shall not be required to submit an Annual Progress Report in any year a

Corrective Measure Five-Year Assessment Report is submitted pursuant to Section VI.C. of this Order.

VII. QUALITY ASSURANCE

Throughout all sample collection and analysis activities, Respondent shall use EPA-approved quality assurance, quality control, and chain-of-custody procedures, as specified in the EPA-approved Work Plans. In addition, Respondent shall:

A. Ensure that laboratories used for analyses by Respondent perform such analyses according to the EPA methods included in "Test Methods for Evaluating Solid Waste" (SW-846, November 1986) or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall submit all protocols to be used for analyses to EPA for approval pursuant to Section VI.I. at least thirty (30) calendar days prior to the commencement of such analyses.

B. Ensure that laboratories used by Respondent for analyses participate in a quality assurance/quality control program equivalent to that which is followed by EPA. As part of such a program, and upon request by EPA, such laboratories shall perform analyses of samples provided by EPA to demonstrate the quality of the analytical data.

C. Inform EPA at least fifteen (15) calendar days in advance of any laboratory analysis required by this Consent Order regarding which laboratory will be used by Respondent and ensure that EPA personnel and/or EPA authorized representatives are allowed reasonable access to the laboratory(ies), records, and personnel utilized by Respondent for analysis of samples collected pursuant to this Consent Order.

VIII. PUBLIC REVIEW OF ADMINISTRATIVE RECORD

The Administrative Record supporting the issuance of this Consent Order will be available for public review during business hours at the following locations:

U.S. Environmental Protection Agency
841 Chestnut Building
Philadelphia, Pennsylvania 19107
Telephone Number: (215) 566-3435
Attn: Mr. Michael A. Jacobi

and

Sutton Public Library
450 Fourth Street #C
Sutton, West Virginia 26601
Telephone Number: (304) 765-7224

IX. ON-SITE AND OFF-SITE ACCESS

A. EPA and/or its authorized representatives shall have the authority to enter and freely move about all property at the Facility during the effective dates of this Consent Order for the purposes of, inter alia: interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts related to work undertaken pursuant to the Consent Order; reviewing the progress of Respondent in carrying out the terms of this Consent Order; conducting such tests, sampling or monitoring as EPA or its Project Coordinator deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to EPA by Respondent. Respondent shall permit EPA and its authorized representatives to inspect and copy records, files, photographs, documents, and other writings, in its possession or under its control, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Consent Order.

B. To the extent that work required by this Consent Order, or by any approved Work Plan prepared pursuant hereto, must be done on property not owned or controlled by Respondent, Respondent shall use its best efforts to obtain site access agreement(s) from the present owner(s) and/or lessee(s) of such property, as appropriate, within thirty (30) calendar days of receipt of EPA approval of any Work Plan pursuant to this Consent Order which requires work on such property. For the purposes of this paragraph, best efforts shall include, at a minimum, but shall not be limited to: a) a certified letter from Respondent to the present owner(s) or lessee(s) of such property, as appropriate, requesting agreements to permit Respondent, EPA, and its authorized representatives access to such property; b) the payment of reasonable sums of money in consideration of access. "Reasonable sums of money" means the fair market value of the right of access necessary to implement the requirements of this Consent Order; c) prompt communication by the Respondent with the property owner(s) or lessee(s) to inform them of the nature of the work to be done on their property, the time it will take, the disturbance (if any) to be caused, and the restoration (if necessary) to be done when the work is finished. In the event that such agreements for access are not obtained within thirty (30) calendar days after receipt of EPA approval of any Work Plan pursuant to this Consent Order which requires work on property which is not owned or controlled by Respondent, Respondent shall notify EPA, in writing, within seven (7) calendar days after

failure to obtain such agreements, regarding both the efforts undertaken to obtain access and the failure to obtain such agreements. In the event that Respondent fails to obtain access, after using best efforts as described in this paragraph, EPA, in its unreviewable discretion, may assist Respondent in obtaining off-site access for Respondent. Respondent shall reimburse EPA for all costs incurred by EPA in obtaining access, including, but not limited to, attorneys' fees and the amount of any just compensation and costs incurred by EPA.

C. Nothing in this Consent Order limits or otherwise affects EPA's rights of access and entry pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

X. SAMPLING AND DATA/DOCUMENT AVAILABILITY

A. Respondent shall submit to EPA the results of all sampling and/or tests or other data generated by, or on behalf of, Respondent in accordance with the requirements of this Consent Order and the Attachments appended hereto and incorporated herein.

B. Respondent shall notify EPA, in writing, at least fifteen (15) calendar days in advance of any field activities, such as well drilling, installation of equipment, or sampling. At the request of EPA, Respondent shall provide or allow EPA or its authorized representatives to take split or duplicate samples of all samples collected by Respondent pursuant to this Consent Order. Nothing in this Consent Order shall limit or otherwise affect EPA's authority to collect samples pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

C. Respondent may assert a business confidentiality claim covering all or part of any information submitted to EPA pursuant to this Consent Order in the manner described in 40 C.F.R. Section 2.203(b). Any assertion of confidentiality shall be adequately substantiated by Respondent when the assertion is made in accordance with 40 C.F.R. Section 2.204(e)(4). Information subject to a confidentiality claim shall be disclosed only to the extent allowed by, and in accordance with, the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such confidentiality claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to Respondent. Respondent shall not assert any confidentiality claim with regard to any physical, sampling, monitoring, or analytical data sampled pursuant to this Consent Order.

D. If Respondent asserts a privilege with respect to any document which EPA seeks to inspect or copy pursuant to this Consent Order, the Respondent shall provide the EPA within seven

(7) days from the date of EPA's request to inspect or copy such document with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the contents of the document, record, or information; and (6) the nature and basis of the privilege asserted by the Respondent. For the purposes of this Consent Order, privileged documents are those documents exempt from discovery by the United States in litigation in Federal court in cases in which the United States is a party. However, no document, record, or information created, generated or collected pursuant to the terms of this Consent Order shall be withheld on the grounds that it is privileged.

XI. RECORD PRESERVATION

Respondent shall preserve, during the pendency of this Consent Order and for a minimum of at least six (6) years after its termination, at least one copy of all nonidentical data, records and documents in its possession or in the possession of its divisions, officers, directors, employees, agents, contractors, successors, and assigns which relate in any way to this Consent Order or to hazardous waste management and/or disposal at the Facility. After six (6) years, Respondent shall make such records available to EPA for inspection or shall provide copies of such records to EPA. Respondent shall notify EPA at least thirty (30) calendar days prior to the proposed destruction of any such records, and shall provide EPA with a reasonable opportunity to inspect, copy and/or take possession of any such records. Respondent shall not destroy any record to which EPA has requested access for inspection and/or copying until EPA has obtained such access or withdrawn its request for such access. Nothing in this Section XI shall in any way limit the authority of EPA under Section 3007 of RCRA, 42 U.S.C. Section 6927, or any other access or information-gathering authority.

XII. PROJECT COORDINATORS

A. EPA hereby designates Michael Jacobi the EPA Project Coordinator. Respondent hereby designates Richard L. Watson as Respondent's Project Coordinator. Addresses and telephone numbers for the two Project Coordinators are provided in Section XIII.A, below. Each Project Coordinator shall be responsible for overseeing the implementation of the Consent Order. The EPA Project Coordinator will be EPA's primary designated representative at the Facility. To the maximum extent possible, all communications between Respondent and EPA, and all documents,

reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Order, shall be directed through the Project Coordinators.

B. Each party agrees to provide at least seven (7) calendar days written notice to the other party prior to changing a Project Coordinator. Respondent's legal counsel shall not serve as Respondent's Project Coordinator.

C. The absence of the EPA Project Coordinator from the Facility shall not be cause for the delay or stoppage of work, unless this work cannot proceed without the EPA Project Coordinator's on-site review and/or approval.

XIII. NOTIFICATION

A. Unless otherwise specified, reports, correspondence, approvals, disapprovals, notices, or other submissions relating to or required under this Consent Order shall be in writing and shall be sent as follows:

1. Four copies of all documents to be submitted to the EPA shall be sent to:

   Michael Jacobi
   U.S. Environmental Protection Agency (3HW90)
   841 Chestnut Building
   Philadelphia, Pennsylvania 19107
   (215) 566-3435 (Telephone)
   (215) 566-3113 (Facsimile)

2. Documents submitted to Respondent shall be sent to:

   William Gadd, President
   Appalachian Timber Services, Inc.
   200 Prestige Park
   Hurricane, West Virginia 25526
   (304) 757-2811 (Telephone)
   (304) 757-2817 (Facsimile)

3. One copy of all documents to be submitted to EPA shall also be sent to:

   Ahmad Syedtalebi
   West Virginia Division of
   Environmental Protection
   1356 Hansford Street
   Charleston, West Virginia 25301-1401

B. Any notice, report, certification, data presentation, or other document submitted by Respondent pursuant to this Consent Order which discusses, describes, demonstrates, or supports any finding or makes any representation concerning Respondent's compliance or noncompliance with any requirement of this Consent Order shall be certified by a responsible corporate officer or a duly authorized representative of a responsible corporate officer. A "responsible corporate officer" means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (b) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. A person is a "duly authorized representative" only if: (1) the authorization is made in writing by a person described above; (2) the authorization specifies either an individual or position having responsibility for overall operation of the regulated facility or activity (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and (3) the written authorization is submitted to the Project Coordinator designated by EPA Section XII ("PROJECT COORDINATOR") of this Consent Order.

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

> I certify that the information contained in or accompanying this **[type of submission]** is true, accurate, and complete.
>
> As to [the/those identified portion(s)] of this **[type of submission]** for which I cannot personally verify **[its/their]** accuracy, I certify under penalty of law that this **[type of submission]** and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature : _____

Name : _____

Title: _____

XIV. DELAY IN PERFORMANCE/STIPULATED PENALTIES

A. Unless there has been a written modification of a compliance date by EPA, or excusable delay as defined below in Section XVI ("FORCE MAJEURE AND EXCUSABLE DELAY") in the event that Respondent fails to comply with any requirement set forth in this Consent Order, Respondent shall pay stipulated penalties, as set forth below, upon receipt of written demand by EPA. Compliance by Respondent shall include commencement or completion of any activity, plan, study or report required by this Consent Order in accordance with the requirements of the Consent Order and within the specified time schedules in and approved under this Consent Order. Stipulated penalties shall accrue as follows:

1. For failure to commence, perform or complete work as prescribed in this Consent Order: $1,000 per day for one to seven days or part thereof of noncompliance, and $3,000 per day for each day of noncompliance, or part thereof, thereafter;

2. For failure to submit any draft or final plans, plans, or reports as required by this Consent Order: $1,000 per day for one to seven days or part thereof of noncompliance, and $3,000 per day for each day of noncompliance, or part thereof, thereafter;

3. For failure to submit quarterly progress reports as required by this Consent Order: $500 per day for one to seven days or part thereof of noncompliance, and $1,000 per day for each day of noncompliance, or part thereof, thereafter;

4. For failure to submit other deliverables as required by this Consent Order: $500 per day for one to seven days or part thereof of noncompliance, and $1,000 per day for each day of noncompliance, or part thereof, thereafter;

5. For any failure to comply with the provisions of this Consent Order after receipt of notice of

noncompliance by EPA: $1,000 per day for one to seven days or part thereof of noncompliance, and $2,000 per day for each day of noncompliance, or part thereof, hereafter, in addition to any stipulated penalties imposed for the underlying noncompliance;

6. For any material failure to comply with this Consent Order not described in subparagraphs 1 through 5, above; $750 per day for one to seven days or part thereof of noncompliance, and $1,500 per day for each day of noncompliance, or part thereof, thereafter.

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

C. All penalties owed to EPA under this Section XIV shall be due within thirty (30) calendar days of receipt of a demand for payment unless Respondent invokes the dispute resolution procedures under Section XV, below. Such notification shall describe the noncompliance and shall indicate the amount of penalties due. Interest shall begin to accrue on the unpaid balance at the end of the thirty (30) calendar day period and shall accrue at the United States Tax and Loan Rate. In addition, a penalty charge of six (6) percent will be assessed on any unpaid balance which remains delinquent more than ninety (90) days after payment is due. However, should assessment of the penalty be required, it will be assessed from the first day payment is due.

D. All penalty payments shall be made by certified or cashier's check payable to the Treasurer of the United States of America and shall be remitted to:

Regional Hearing Clerk
U.S. Environmental Protection Agency
Region III
P.O. Box 360515
Pittsburgh, Pennsylvania 15251-6515

All payments shall reference the name of the Facility, Respondent's name and address, and the EPA Docket Number of this Consent Order. Copies of the transmittal of payment shall be sent simultaneously to the EPA Project Coordinator and the Regional Hearing Clerk (3RC00), U.S. Environmental Protection Agency, Region III, 841 Chestnut Building, Philadelphia,

Pennsylvania 19107.

E. Respondent may dispute EPA's demand for payment of stipulated penalties for any alleged violation of this Consent Order by invoking the dispute resolution procedures below under Section XV ("DISPUTE RESOLUTION"). Stipulated penalties and interest shall continue to accrue, but need not be paid, for any alleged noncompliance which is the subject of dispute resolution during the period of such dispute resolution. To the extent that Respondent does not prevail upon resolution of the dispute, Respondent shall remit to EPA within fifteen (15) calendar days of receipt of such resolution any outstanding penalty payment, including any accrued interest, in the manner described above in Paragraph D of this Section XIV. To the extent Respondent prevails upon resolution of the dispute, no penalties shall be payable. Notwithstanding the above, to the extent that Respondent does not prevail upon resolution of a dispute, EPA, in its sole and unreviewable discretion, after consideration of the nature of the dispute, Respondent's assertions relative to the matter in dispute, and any other relevant matter, may forego collection of all or a portion of the stipulated penalty and any accrued interest.

F. Except as provided in paragraph E of this Section, immediately above, neither the filing of a petition to resolve a dispute nor the payment of penalties shall alter in any way Respondent's obligation to comply with the requirements of this Consent Order.

G. The stipulated penalties set forth in this Section shall not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the requirements of this Consent Order.

XV. DISPUTE RESOLUTION

A. If Respondent disagrees, in whole or in part, with any EPA disapproval, modification or other decision or directive made by EPA pursuant to this Consent Order, Respondent shall notify EPA in writing of its objections, and the basis therefor, within fifteen (15) calendar days of receipt of EPA's disapproval, decision or directive. Such notice shall set forth the specific points of the dispute, the position which Respondent asserts should be adopted as consistent with the requirements of this Consent Order, the basis for Respondent's position, and any matters which it considers necessary for EPA's determination. EPA and Respondent shall have an additional fifteen (15) calendar days from the receipt by EPA of the notification of objection,

during which time representatives of EPA and Respondent may confer in person or by telephone to resolve any disagreement. If an agreement is reached, the resolution shall be written and signed by an authorized representative of each party. In the event that resolution is not reached within this fifteen (15) calendar day period, EPA will furnish to Respondent, in writing, its decision on the pending dispute.

B. Except as provided in paragraphs C and E of Section XIV ("DELAY in PERFORMANCE/STIPULATED PENALTIES"), the existence of a dispute, as defined in this Section, and EPA's consideration of matters placed into dispute, shall not excuse, toll or suspend any compliance obligation or deadline required pursuant to this Consent Order during the pendency of the dispute resolution process.

C. Notwithstanding any other provisions of this Consent Order, no action or decision by EPA, including, without limitation, decisions of the Regional Administrator, Region III, pursuant to this Consent Order, shall constitute final agency action giving rise to any right to judicial review prior to EPA's initiation of judicial action to compel Respondent's compliance with this Consent Order.

XVI. FORCE MAJEURE AND EXCUSABLE DELAY

A. Respondent shall perform the requirements of this Consent Order in the manner and within the time limits set forth herein, unless the performance is prevented or delayed by events which constitute a force majeure. Respondent shall have the burden of proving such a force majeure. A force majeure is defined as any event arising from causes not reasonably foreseeable and beyond the control of Respondent, which cannot be overcome by due diligence and which delays or prevents performance in the manner or by a date required by this Consent Order. Such events do not include increased costs of performance, changed economic circumstances, reasonably foreseeable weather conditions or weather conditions which could have been overcome by due diligence, or failure to obtain federal, state, or local permits.

B. Respondent shall notify EPA, in writing, within seven (7) calendar days after it becomes or should have become aware of any event which causes or may cause a delay in complying with any requirement of this Consent Order or prevents compliance in the manner required by this Consent Order and any event which Respondent claims constitutes a force majeure. Such notice shall estimate the anticipated length of delay, including necessary demobilization and remobilization, its cause, measures taken or to be taken to prevent or minimize the delay, and an estimated

timetable for implementation of these measures the threat or potential threat of any, to human health or the environment caused by the delay or disruption, and if Respondent asserts that the event is a force majeure, the facts and reasoning supporting that assertion. Failure to comply with the notice provision of this Section shall constitute a waiver of Respondent's right to assert a force majeure claim with respect to such event. In addition to the above notification requirements, Respondent shall undertake all reasonable actions to prevent or to minimize any delay in achieving compliance with any requirement of this Consent Order after it becomes or reasonably should have become aware of any event which may delay such compliance.

C. If EPA determines that the failure to comply or delay has been or will be caused by a force majeure, the time for performance of that requirement of this Consent Order may be extended, upon EPA approval, for a period equal to the delay resulting from such force majeure. This shall be accomplished through an amendment to this Consent Order pursuant to Section XXII ("SUBSEQUENT MODIFICATION"). Such an extension shall not alter the schedule for performance or completion of any other tasks required by this Consent Order, unless these tasks are also specifically altered by amendment of the Consent Order. In the event that EPA and Respondent cannot agree that any delay or failure has been or will be caused by a force majeure, or if there is no agreement on the length of the extension, Respondent may invoke the dispute resolution procedures set forth in Section XV ("DISPUTE RESOLUTION").

XVII. RESERVATION OF RIGHTS

A. EPA reserves all rights and defenses that it may have, including the right to disapprove of work performed by Respondent pursuant to this Consent Order, to require that Respondent correct and/or perform any work disapproved by EPA, and to request that Respondent perform tasks in addition to those stated in the Scope(s) of Work, Work Plans, or this Consent Order.

B. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights and remedies, both legal and equitable, including any which may pertain to Respondent's failure to comply with any of the requirements of this Consent Order, including, without limitation, the assessment of penalties under Section 3008(h)(2) of RCRA, 42 U.S.C. Section 6928(h)(2). This Consent Order shall not be construed as a covenant not to sue, or as a release, waiver or limitation of any rights, remedies, powers and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory or common law authority of the United States, except as specifically set forth hereon.

C. Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.

D. The signing of this Consent Order and Respondent's consent to comply shall not limit or otherwise preclude EPA from taking additional enforcement action pursuant to Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h), or any other authority, should EPA determine that such action is warranted.

E. This Consent Order is not intended to be, nor shall it be construed as, a permit. This Consent Order does not relieve Respondent of any obligation to obtain and comply with any local, state, or federal permit.

F. EPA reserves the right to perform any portion of the work consented to herein or any additional site characterization, feasibility study, and response/corrective actions it deems necessary to protect public health and/or welfare and/or the environment. EPA may exercise its authority under RCRA, CERCLA or any other authority to undertake or require the performance of response actions at any time. EPA reserves the right to seek reimbursement from Respondent for costs incurred by the United States in connection with any such response actions. Notwithstanding compliance with the terms of this Consent Order, Respondent is not released from liability, if any, for the costs of any response actions taken by EPA.

G. EPA reserves whatever rights it may have under CERCLA or any other law, or in equity, to recover from Respondent any costs incurred by EPA in overseeing the implementation of this Consent Order.

H. If EPA determines that Respondent's activities, whether or not in compliance with this Consent Order, have caused or may cause a release or threatened release of hazardous wastes, hazardous constituents, hazardous substances, pollutants, or contaminants, which threaten or may pose a threat to human health and/or the environment, EPA may direct Respondent to stop further implementation of this Consent Order for such period of time as may be needed to abate any such release or threatened release and/or undertake any action which EPA determines is necessary to abate such release or threatened release.

I. Because this Consent Order was entered with the consent of both parties, Respondent waives its right to request a public hearing pursuant to Section 3008(b) of RCRA, 42 U.S.C. section 6928(b).

XVIII. OTHER CLAIMS

Nothing in this Consent Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership, or corporation, or other entity for any liability it may have arising out of, or relating in any way, to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Facility.

XIX. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. Respondent shall obtain or require its authorized representatives to obtain all permits and approvals necessary under such laws and regulations.

XX. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of Respondent or its agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Consent Order. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Respondent or the United States under their various contracts.

XXI. NOTICE OF NON-LIABILITY OF EPA

Neither the United States nor EPA shall be deemed a party to any contract involving Respondent and relating to activities at the Facility nor shall the United States or EPA be held liable for any claim or cause of action arising from or on account of any act, or omission of Respondent, its officers, employees, contractors, receivers, trustees, agents or assigns, in carrying out the activities required by this Consent Order.

XXII. SUBSEQUENT MODIFICATION

A. This Consent Order may only be amended in writing by mutual agreement of EPA and Respondent. Any such amendment shall

be in writing, shall be signed by both parties, shall have as its effective date the date on which it is signed by EPA, and shall be incorporated into this Consent Order by reference.

B. Any reports, plans, specifications, schedules, other submissions and attachments required by this Consent Order are, upon written approval by EPA, incorporated into this Consent Order by reference. Any noncompliance with such EPA-approved reports, plans, specifications, schedules, submissions and attachments shall be considered a violation of this Consent Order and shall subject Respondent to the stipulated penalty provisions included in Section XIV ("DELAY IN PERFORMANCE/STIPULATED PENALTIES").

C. Minor modifications in the studies, techniques, procedures, designs or schedules utilized in carrying out this Consent Order and necessary for the completion of the project may be made by written agreement of the Project Coordinators. Such modifications shall have as an effective date the date on which the agreement is signed by the EPA Project Coordinator. In emergency situations, minor modifications may be agreed to by oral agreement of the Project Coordinators, subject to written confirmation by the Project Coordinators within seven (7) days of such oral agreement.

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

XXIII. SEVERABILITY

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

XXIV. TERMINATION AND SATISFACTION

The provisions of this Consent Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Consent Order, including any additional tasks determined by EPA to be required pursuant to this Consent Order, have been satisfactorily completed. This notice shall not, however, terminate Respondent's obligation to comply with

any continuing obligations hereunder including, but not limited to, Sections XI ("RECORD PRESERVATION"), XVII ("RESERVATION OF RIGHTS"), XVIII ("OTHER CLAIMS"), XIX ("OTHER APPLICABLE LAWS"), XX ("INDEMNIFICATION OF THE UNITED STATES GOVERNMENT"), XXI ("NOTICE OF NON-LIABILITY"), AND XXVI ("ATTORNEYS' FEES").

XXV. SURVIVABILITY/PERMIT INTEGRATION

A. Subsequent to the issuance of this Consent Order, Respondent may request, and EPA may issue, a RCRA permit for the Facility that incorporates the requirements of this Consent Order by reference into the permit.

B. No requirement of this Consent Order shall terminate upon the issuance of a RCRA permit for the Facility unless such requirement is expressly replaced by a requirement in the permit.

XXVI. ATTORNEYS' FEES

The Respondent shall bear its own costs and attorneys' fees.

XXVII. EFFECTIVE DATE

The effective date of this Consent Order shall be the date on which a fully executed, true and correct copy of this Consent Order is received by Respondent. Because this Order was entered with the consent of both parties, Respondent waives its right to request a public hearing pursuant to Section 3008(b) of RCRA, 42 U.S.C. Section 6928(b).

IT IS SO AGREED AND ORDERED:

DATE:_____ BY:_____
W. MICHAEL McCABE
REGIONAL ADMINISTRATOR
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY, REGION III

DATE:_____ BY:_____

ATTACHMENT A

SCOPE OF WORK FOR THE CORRECTIVE MEASURE IMPLEMENTATION

PURPOSE

This Scope of Work ("SOW") sets forth the requirements for the implementation of the design, construction, operation, maintenance, and monitoring of the corrective measures or measures pursuant to the Final Administrative Order on Consent ("Consent Order" or "Order") to which this SOW is attached. The work performed under this Order will implement the corrective measures that have been selected by EPA in the Final Decision and Response to Comments ("FDRTC") and any amendments thereto. The Respondent will furnish all personnel, materials, and services necessary for the implementation of the corrective measure or measures.

SCOPE

The Corrective Measure Implementation consists of four tasks:

Task I: Corrective Measure Implementation Work Plan

- A. Management Plan
- B. Community Relations Plan
- C. Sampling and Analysis Plan
- D. Corrective Measures Permitting Plan
- E. Supplemental Field Investigation Work Plan

Task II: Corrective Measure Design

- A. Design Plans and Specifications
- B. Operation and Maintenance Plan
- C. Cost Estimate
- D. Construction Quality Assurance Objectives
- E. Health and Safety Plan
- F. Sampling and Analysis Plan Revision
- G. Design Phases

Task III: Corrective Measure Construction

- A. Preconstruction Inspection and Meeting
- B. Inspections
- C. CMI Report

Task IV: Reports

- A. Progress
- B. CMI Work Plan
- C. CMI 30% Design
- D. CMI 90% Design
- E. CMI 100% Design
- F. CMI Report

Further specifications of the work outlined in this SOW will be provided in the Corrective Measures Implementation Work Plan and subsequent plans to be approved by EPA. Variations from the SOW will be made, if necessary, to fulfill the objectives of the Corrective Measures set forth in the FDRTC and any amendments thereto.

Additional studies may be needed as part of the Corrective Measures Implementation to supplement the available data. At the direction of EPA for any such studies required, the Respondent shall furnish all services, including field work, materials, supplies, plant, labor, equipment, investigations, and superintendence. Sufficient sampling, testing and analysis shall be performed to optimize the required treatment and/or disposal operations system.

TASK I: CORRECTIVE MEASURE IMPLEMENTATION WORK PLAN

The Respondent shall prepare a Corrective Measure Implementation ("CMI") Work Plan. The CMI Work Plan shall outline the design, construction, operation, maintenance and monitoring of all actions taken to implement the Corrective Measures as defined in the Order and the FDRTC and any amendments thereto. This CMI Work Plan will include the development and implementation of several plans, which require concurrent preparation. It may be necessary to revise plans as necessary during the performance of this Order. The CMI Work Plan includes the following:

A. Management Plan

The Respondent shall prepare a Management Plan which will include:

1. Documentation of the overall management strategy for performing the design, construction, operation, maintenance, and monitoring of corrective measure(s);

2. Description of the responsibility and authority of all organizations and key personnel involved with the implementation;

3. Description of the qualifications of key personnel directing the CMI, including contractor personnel;

4. Conceptual design of the treatment and/or disposal system or any corrective measures to be installed as set forth in the requirements of the FDRTC;

5. An outline of proposed field activities necessary to complete the CMI Design;

6. Proposed locations of groundwater monitoring wells and a detailed well development plan;

7. Proposed discharge options for treated ground water, with a proposed option upon which the CMI Design will be based;

8. Proposed detailed performance criteria for groundwater treatment;

9. A description of how the conceptual design is expected to meet the technical requirements of the FDRTC and any amendments thereto; and

10. Flow chart and schedule of work to be performed during the CMI.

B. Community Relations Plan

The Respondent shall submit and/or revise the Community Relations Plan to include any material changes in the level of concern or information needs of the community during design and construction activities.

1. Specific activities which must be conducted during the design stage are the following:

   a. The facility Community Relations Plan is to reflect knowledge of citizen concerns and involvement at this stage of the process; and

   b. Prepare and distribute a public notice and an updated fact sheet at the completion of engineering design.

2. Specific activities to be conducted during the construction stage could be the following: depending on citizen interest at a facility at this point in the corrective action process, community relations activities could range from group meetings to fact sheets on the technical status.

C. Sampling and Analysis Plan

Respondent shall submit and/or revise the Sampling and Analysis Plan describing work to be performed during Corrective Measures Design, which shall be comprised of:

1. Data quality objectives for design phase activities,

2. A Quality Assurance Project Plan (QAPP),

3. A Field Sampling Plan, and

4. A Data Management Plan describing the steps to be followed in compiling, organizing, and reviewing data collected in accordance with the Sampling and Analysis Plan and identifying the frequency of periodic data reviews and evaluations.

The Sampling and Analysis Plan will include the existing soil and well sampling and analysis program, with appropriate revisions as necessary.

D. Corrective Measures Permitting Plan

Respondent shall submit a Corrective Measures Permitting Plan identifying all federal, state, interstate and local permits and approvals required for the implementation of the Corrective Measures required by this Consent Order, and for the implementation of any institutional controls required by this Consent Order. The plan shall also identify all agreements or other arrangements with adjoining landowners, if any, known by Respondent to be necessary for the implementation of the Corrective Measures, including, but not limited to, site access and easement agreements. The plan shall include a schedule indicating the time needed to obtain all such approvals and permits and to enter into such agreements and arrangements (this may be integrated with the design/implementation schedule items).

E. Supplemental Field Investigation Work Plan

Respondent shall submit a work plan setting forth the protocols and methodologies for any additional hydrogeologic investigations or other field work, if any such additional investigation or field work is necessary, for the proper design of the groundwater extraction and treatment systems. The work plan shall include an expeditious schedule for the completion of any such supplemental field work.

TASK II: CORRECTIVE MEASURE DESIGN

The Respondent shall prepare final construction plans and specifications to implement the corrective measure at the facility as defined in the Corrective Measures set forth in the FDRTC and any amendments thereto.

A. Design Plans and Specifications

The Respondent shall develop clear and comprehensive design plans and specifications which include, but are not limited to, the following:

1. Discussion of the design strategy and the design basis, including:

   a. Compliance with all applicable or relevant environmental and public health standards;

   b. Minimization of environmental and public health impacts; and

   c. Update schedules, if necessary, from commencement through completion of construction of the CMI.

2. Discussion of the technical factors of importance including:

   a. Use of currently accepted environmental control measures and technology;

   b. The constructibility of the design; and

   c. Use of currently acceptable construction practices and techniques.

3. Description of assumptions made and detailed justification of these assumptions;

4. Discussion of the possible sources of error and references to possible operation and maintenance problems;

5. Detailed drawings of the proposed design including;

   a. Qualitative flow sheets; and

   b. Quantitative flow sheets.

6. Tables listing equipment and specifications;

7. Tables giving material and energy balances;

8. Appendices including:

   a. Sample calculations (one example presented and explained clearly for significant or unique design calculations);

   b. Derivation of equations essential to understanding the report; and

   c. Results of laboratory or field tests.

B. Operation and Maintenance Plan

The Respondent shall prepare or revise the Operation and Maintenance ("O&M") Plan to cover both implementation and long term maintenance of the corrective measure. The O&M Plan is to identify the processes to occur, submissions during O&M, and schedule for O&M activities consistent with remedial objectives set forth in the FDRTC and any amendments thereto. The plan shall be composed of the following elements:

1. Description of normal O&M:

   a. Description of tasks for operation;

   b. Description of tasks for maintenance;

c. Description of prescribed treatment or operation conditions; and

d. Schedule showing frequency of each O&M task, also to be included in the Management Plan.

2. Description of potential operating problems:

a. Description and analysis of potential operation problems;

b. Sources of information regarding problems; and

c. Common and/or anticipated remedies.

3. Description of routine monitoring and laboratory testing:

a. Description of monitoring tasks;

b. Description of required laboratory tests and their interpretation;

c. Required QA/QC; and

d. Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.

4. Description of alternate O&M:

a. Should systems fail, alternate procedures to prevent undue hazard; and

b. Analysis of vulnerability and additional resource requirements should a failure occur.

5. Safety plan:

a. Description of precautions, of necessary equipment, etc., for site personnel; and

b. Safety tasks required in event of systems failure.

6. Description of equipment:

a. Equipment identification;

b. Installation of monitoring components;

c. Maintenance of site equipment; and

d. Replacement schedule for equipment and installed components.

7. Records and reporting mechanisms required:

   a. Daily operating logs;

   b. Laboratory records;

   c. Records for operating and maintenance costs;

   d. Mechanism for reporting emergencies;

   e. Personnel and maintenance records;

   f. Contents of periodic progress reports described in Task IV.A and providing details on how Task IV. A requirements will be met; and

   g. Monthly/annual reports to State agencies.

An initial O&M Plan shall be submitted simultaneously with the Preliminary Design document submissions, and the Final O&M Plan with the Final Design documents.

C. Cost Estimate

The Respondent shall develop cost estimates of the Corrective Measures for the purpose of assuring that the Respondent has the financial resources necessary to construct and implement the corrective measure. The cost estimate developed in the Corrective Measure Study shall be refined to reflect the more detailed/accurate design plans and specifications being developed. The cost estimate shall include both capital and operation and maintenance costs.

D. Construction Quality Assurance Objectives

The Respondent shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to the following: responsibility and authority; personnel qualifications; inspection activities; sampling requirements; and documentation.

E. Health and Safety Plan

The Respondent shall prepare a Health and Safety Plan or modify the Health and Safety Plan developed for the RCRA Facility Investigation to address the activities to be performed at the facility to implement the corrective measures.

F. Sampling and Analysis Plan Revision

Respondent shall update the Sampling and Analysis Plan, including the QAPP, during each phase of Design, as appropriate, to reflect changes in the following: responsibility and authority; personnel qualifications; inspection activities; sampling requirements;

documentation, and other changes to the sampling and analysis program.

G. Design Phases

The design of the corrective measure should include the phases outlined below:

1. Preliminary (30%) CMI Design

   a. The Respondent shall submit the 30% CMI Design Report when the design effort is approximately 30% complete. At this stage the Respondent shall have field verified the existing conditions of the facility. The 30% design shall reflect a level of effort such that the specifications may be reviewed to determine if the final design will provide effective, operable and usable corrective measures. Supporting data and documentation shall be provided with the design documents defining the functional aspects of the program. The 30% construction drawings shall reflect organization and clarity. The Respondent shall include with the 30% design submission, calculations reflecting the same percentage of completion as the designs they support.

   b. Correlating plans and specifications. The project specifications to be included in the 30% CMI Design Report shall demonstrate that the Respondent has:

      i. Coordinated and cross-checked the specifications and drawings; and

      ii. Completed the proofing of the edited specifications and required cross-checking of all drawings and specifications.

   c. Equipment start-up and operator training

      The Respondent shall prepare, and include in the technical specifications governing treatment and or disposal systems; contractor requirements for providing: appropriate service visits by experienced personnel to supervise the installation, adjustment, startup and operation of the treatment systems, and training covering appropriate operational procedures once the startup has been successfully accomplished.

2. Final (90% and 100%) CMI Design

   The Respondent shall execute the required revisions and submit the final documents as draft Final (90% complete) CMI Design Report and Final (100% complete) CMI Design Report with reproducible drawings and specifications.

The Final CMI Design submittal shall consist of the Final Design Plans and Specifications (100% complete), the Respondent's Final Cost Estimate, the Final Draft Operation and Maintenance Plan, Final Quality Assurance Plan, Final Project Schedule, and Final Health and Safety Plan specifications. The quality of the design documents should be such that the Respondent would be able to include them in a bid package and invite contractors to submit bids for the construction project.

TASK III: CORRECTIVE MEASURE CONSTRUCTION

Following EPA approval of the Final CMI Design Report, the Respondent shall develop and implement construction in accordance with procedures, specifications, and schedules in the EPA-approved Final CMI Design Report and the EPA approved CMI Work Plan. During the Construction Phase, Respondent will continue to submit periodic progress reports. The Respondent shall also implement the elements of the approved O&M plan.

The Respondent shall update the Sampling and Analysis Plan, including the QAPP, during the Construction Phase, as appropriate, to reflect changes in the following: responsibility and authority, personnel qualification, construction quality assurance, inspection activities, documentation, and other changes affecting quality assurance.

The Respondent shall conduct the following activities during construction:

A. Preconstruction Inspection and Meeting

The Respondent shall conduct a preconstruction inspection and meeting to:

1. Review methods for documenting and reporting inspection data;

2. Review methods for distributing and storing documents and reports;

3. Review work area security and safety protocol;

4. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and

5. Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designated person and minutes should be transmitted to all parties.

B. Inspections

1. Respondent will conduct inspections to monitor the construction and/or installation of components of the corrective measure. Inspections shall verify compliance with all environmental requirements and include, but not limited to, review of air quality and emissions monitoring records, waste disposal records (e.g. RCRA transportation manifests), etc, as applicable. Inspections will also ensure compliance with all health and safety procedures. Treatment and/or disposal equipment will be operationally tested by the Respondent. The Respondent will certify that the equipment has performed to meet the purposes and intent of the specifications. Retesting will be completed where deficiencies are revealed.

2. When all construction is complete, the Respondent shall notify EPA for the purposes of conducting a final inspection. The final inspection will consist of a walk through inspection of the project site. The inspection is to determine whether the project is complete and consistent with contract documents and the EPA approved corrective measures. Any outstanding construction items will be identified and noted. If necessary, Respondent shall notify EPA upon completion of any outstanding construction items and another final inspection consisting of a walk-through inspection of the project site to confirm all outstanding items have been resolved.

C. CMI Report

Upon completion of construction and also an initial period of performance monitoring after starting, and in accordance with the schedule included in the Management Plan, Respondent will prepare and submit a CMI Report.

TASK IV: REPORTS

The Respondent shall prepare plans, specifications, and reports as set forth in Tasks I through III to document the design, construction, operation, maintenance, and monitoring of the corrective measure. The documentation shall include, but not be limited to the following:

A. Progress Reports

Quarterly

The Respondent shall provide the EPA with signed, quarterly progress reports containing:

1. A description of the work performed during the preceding monitoring interval and estimate of the percentage of the CMI completed;

2. Summaries of all findings;

3. Summaries of all changes made in the CMI during the reporting period;

4. Summaries of all contacts with representative of the local community, public interest groups, or State government during the reporting period;

5. Summaries of system performance during the reporting period including a summary of all problems or potential problems encountered or anticipated during the reporting period;

6. Actions being taken to rectify problems;

7. Changes in personnel during the reporting period;

8. Projected work for the next reporting period; and

9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

Annual

Annual Progress Reports shall contain:

1. A narrative summary of principal activities conducted during the reporting period,

2. Graphical or tabular presentations of monitoring data, including but not limited to average monthly system pumping rates and throughput, efficiency, groundwater levels and flow direction, and groundwater quality,

3. A schedule of sampling and field activities to be performed in the following year, and

4. An O&M Evaluation

   O&M Evaluation shall assess performance of the corrective measure over time and provide one basis for EPA's Five-Year Evaluation of the corrective measure. Annual O&M Evaluation shall include:

   a. Summarized data representing corrective measure performance during respective two-year intervals;

   b. Any proposed changes to the corrective measure and summary of changes to have been previously made;

   c. Isoconcentration maps for each contaminant of concern listed in the Order;

   d. Statistical assessment of the progress of the corrective measure towards achievement of media clean-up standards;

e. When appropriate, notification that corrective action media clean-up standards have been achieved.

An Annual Progress Report shall not be required for any year in which the Respondent is required to submit a Corrective Measures Five Year Assessment Report.

B. CMI Work Plan

The Respondent shall submit a CMI Work Plan as outlined in Task I. The QAPP, included with the CMI Work Plan, will be revised, as appropriate, throughout the CMI.

C. The 30% CMI Design Report

The 30% CMI Design Report shall include:

1. Draft Design Plans and Specifications reflecting 30% of design work to be completed;

2. A draft O&M Plan;

3. A preliminary cost estimate;

4. A revised project schedule, also to be included in a revised CMI Management Plan.

D. The 90% CMI Design Report

The 90% CMI Design Report shall include:

1. A summary of activities performed and data generated during Corrective Measure Design, including results and interpretation of treatability studies;

2. Draft detailed Corrective Measure Design Plans and Specifications reflecting 90% of design work to be completed;

3. Final performance criteria for the corrective measures, consistent with comments to have been provided by EPA on the Conceptual Design proposed in the Management Plan;

4. Proposal of means to evaluate system performance against media cleanup standards listed in the FDRTC and any amendments thereto;

5. A Final O&M Plan;

6. A revised Cost Estimate;

7. Revision to the Sampling and Analysis Plan, including the QAPP, to address sampling activities to be performed during the Corrective Measures Construction Phase, including the sampling activities, sample size, sample locations, frequency

of testing, acceptance and rejection criteria, and plans for correcting problems as addressed in the project specification;

8. Sampling and construction activities to be performed during the Corrective Measure Construction Phase;

9. Proposed changes to the Project Schedule, if appropriate, with emphasis on short-term Construction schedule. These proposed changes in schedule also will be included in the revised Management Plan.

E. Final (100%) CMI Design Report

The Respondent shall submit a Final (100%) CMI Design Report as outlined in Task II to this SOW.

F. CMI Report

The Respondent shall submit the CMI Reports as outlined in Task III to this SOW. The CMI Report shall describe activities performed during construction, provide actual specifications of implemented remedy, and provide a preliminary assessment of CMI performance. The CMI Report shall include, but not be limited to, the following elements:

1. Synopsis of the corrective measure and certification of the design and construction;

2. Explanation of any modifications to the EPA-approved construction and/or design plans and why these were necessary for the project;

3. Listing of the criteria, established in the EPA-approved CMI Work Plan, for judging whether the corrective measure is functioning properly, and also explaining any modification to these criteria;

4. Certification by registered professional engineer that the construction is complete, consistent with contract documents, and the EPA-approved corrective measure, and that the equipment performs to meet the intent of the specifications;

5. Results of Facility monitoring, assessing the likelihood that the Corrective Measure will meet or exceed the media clean-up standards set forth in the FDRTC and any amendment thereto.

This report should include all of the daily inspection summary reports, inspection summary reports, inspection data sheets, problem identification and corrective measure reports, block evaluation reports, photographic reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications (with justifying documentation), and as-built drawings, unless otherwise agreed to by EPA.

Attachment B

HEALTH AND SAFETY PLAN

The Respondent shall prepare a facility Health and Safety Plan.

1. Major elements of the Health and Safety Plan shall include:

   a. Facility description including availability of resources such as roads, water supply, electricity, and telephone service;

   b. Description of the known hazards and evaluations of the risks associated with the incident and with each activity conducted, including, but not limited to, on-site and off-site exposure to contaminants;

   c. List of key personnel and alternates responsible for site safety, response operations, and protection of public health;

   d. Delineation of work area;

   e. Description of levels of protection to be worn by personnel in work area;

   f. Establishment of procedures to control site access;

   g. Description of decontamination procedures for personnel and equipment;

   h. Establishment of site emergency procedures;

   i. Emergency medical care for injuries and toxicological problems;

   j. Description of requirements for an environmental surveillance program;

   k. Routine and special training required for responders; and

   l. Establishment of procedures for protecting workers from weather-related problems.

2. The facility Health and Safety Plan shall be consistent with:

   a. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);

   b. EPA Order 1440.3 - Respiratory Protection;

   c. EPA Order 1440.2 - Health and Safety Requirements for Employees Engaged in Field Activities;

   d. Facility Contingency Plan;

   e. EPA Standard Operating Safety Guide (1984);

f. OSHA regulations, particularly in 29 C.F.R. 1910 and 1926;

g. State and local regulations; and

h. Other EPA guidance as provided.

3. The Health and Safety Plan must be revised to address any additions and/or changes in planned activities.

Attachment C

INTERIM MEASURES
SCOPE OF WORK

PURPOSE

The purpose of Interim Measures are to identify and correct any actual or potential releases of hazardous waste or constituents from regulated units, solid waste management units, and other sources or areas at the facility which may present an endangerment to human health or the environment.

SCOPE

The Interim Measures consist of five tasks:

TASK I: INTERIM MEASURES WORKPLAN

A. Interim Measures Objectives
B. Community Relations Plan

TASK II: INTERIM MEASURES INVESTIGATION PROGRAM

A. Data Collection Quality Assurance Plan
B. Data Management Plan

TASK III: INTERIM MEASURES DESIGN PROGRAM

A. Design Plans and Specifications
B. Operation and Maintenance Plan
C. Project Schedule
D. Final Design Documents

TASK IV. INTERIM MEASURES CONSTRUCTION QUALITY ASSURANCE PLAN

A. Construction Quality Assurance Objectives
B. Inspection Activities
C. Sampling Requirements
D. Documentation

TASK V. REPORTS

A. Progress
B. Interim Measures Workplan
C. Final Design Documents
D. Draft Interim Measures Report
E. Final Interim Measures Report

TASK I: INTERIM MEASURES WORKPLAN

Respondent shall prepare an Interim Measures Workplan. The workplan shall include the development of several plans which shall be prepared concurrently.

A. Interim Measures Objectives

The workplan shall specify the objectives of the interim measures, demonstrate how the interim measures will abate releases and threatened releases, and, to the extent possible, be consistent and integrated with any long term solution at the facility. The Interim Measures Workplan will include a discussion of the technical approach, engineering design, engineering plans, schedules, budget, and personnel. The Workplan will also include a description of qualifications of personnel performing or directing the interim measures, including contractor personnel. This plan shall also document the overall management approach to the interim measures.

B. Community Relations Plan

Respondent shall prepare a plan for the dissemination of information to the public regarding interim measure activities and results. These activities shall include the preparation and distribution of fact sheets and participation in public meetings.

TASK II: INTERIM MEASURES INVESTIGATION PROGRAM

A. Data Collection Quality Assurance Plan

The Respondent shall prepare a plan to document all monitoring procedures: sampling, field measurements, and sample analysis performed during the investigation to characterize the source and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented.

1. Data Collection Strategy

The strategy section of the Data Collection Quality Assurance Plan shall include, but not be limited to, the following:

a. Description of the intended uses for the data, and the necessary level of precision and accuracy 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, parameter variations at

a sampling point, a process condition, or an environmental condition. Examples of factors which shall be considered and discussed include:

i) Environmental conditions at the time of sampling;

ii) Number of sampling points;

iii) Representativeness of selected media; and

iv) Representativeness of selected analytical parameters.

d. Description of the measures to be taken to assure that the following data sets can be compared to each other:

i) Data generated by the Respondent over some time period;

ii) Data generated by an outside laboratory or consultant versus data generated by the Respondent;

iii) Data generated by separate consultants or laboratories; and

iv) Data generated by an outside consultant or laboratory over some time period.

e. Details relating to the schedule and information to be provided in quality assurance reports. The 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. Sampling and Field Measurements

The Sampling and Field Measurements section of the Data Collection Quality Assurance Plan shall discuss:

a. Selecting appropriate sampling and field measurement locations, depths, etc.;

b. Providing a statistically sufficient number of sampling and field measurement sites;

c. Measuring all necessary ancillary data;

d. Determining which media are to be sampled (e.g., ground water, soil, sediment, etc.);

e. Determining which parameters are to be measured and where;

f. Selecting the frequency of sampling and field measurement and the length of sampling period;

g. Selecting the types of sample (e.g., composites vs. grabs) and the number of samples to be collected;

h. Documenting field sampling and field measurement 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 and field measurement data acquisition;

iii) Documentation of specific sample preservation method;

iv) Calibration of field devices;

v) Collection of replicate samples;

vi) Submission of field-biased blanks, where appropriate;

vii) Potential interferences present at the facility;

viii) Construction materials and techniques, associated with monitoring wells and piezometers;

ix) Field equipment listing and sample containers;

x) Sampling and field measurement order; and

xi) Decontamination procedures.

i. Selecting appropriate sample containers;

j. Sample preservation; and

k. Chain-of-custody, including:

i) Standardized field tracking reporting forms to establish sample custody in the field prior to shipment; and

ii) Pre-prepared sample labels containing all information necessary for effective sample tracking.

3. Sample Analysis

The Sample Analysis section of the Data Collection Quality Assurance 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 standard lab-tracking report sheets; and

iii) Specification of laboratory sample custody procedures for sample handling, storage, and dispersement for analysis.

b. Sample storage and holding 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; and

v) Method detection limits.

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.

A performance audit may be conducted by EPA on the laboratories selected by the Respondent.

h. Preventive maintenance procedures and schedules;

i. Corrective action (for laboratory problems); and

j. Turnaround time.

B. Data Management Plan

The Respondent shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

1. Data Record

The data record shall include the following:

a. Unique sample or field measurement code;

b. Sampling or field measurement location and sample or measurement type;

c. Sampling or field measurement raw data;

d. Laboratory analysis ID number;

e. Property or component measured; and

f. Result of analysis (e.g., concentration).

2. Tabular Displays

The following data shall be presented in tabular displays:

a. Unsorted (raw) data;

b. Results for each medium, or for each constituent monitored;

c. Data reduction for numerical analysis;

d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and

e. Summary data.

3. 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.):

a. Display sampling location and sampling grid;

b. Indicate boundaries of sampling area, and areas where more data are required;

c. Display levels of contamination at each sampling location;

d. Display geographical extent of contamination;

e. Display contamination levels, averages, and maxima;

f. Illustrate changes in concentration in relation to distance from the source, time, depth, or other parameters; and

g. Indicate features affecting intramedia transport and show potential receptors.

TASK III: INTERIM MEASURES DESIGN PROGRAM

A. Design Plans and Specifications

Respondent shall develop clear and comprehensive design plans and specifications which include, but are not limited to, the following:

1. Discussion of the design strategy and the design basis, including:

    a. Compliance with all applicable or relevant environmental and public health standards; and

    b. Minimization of environmental and public impacts.

2. Discussion of the technical factors of importance, including:

    a. Use of currently accepted environmental control measures and technology;

    b. The constructibility of the design; and

    c. Use of currently acceptable construction practices and techniques.

3. Description of assumptions made and detailed justification of these assumptions;

4. Discussion of the possible sources of error and references to possible operation and maintenance problems;

5. Detailed drawings of the proposed design, including:

    a. Qualitative flow sheets;

    b. Quantitative flow sheets;

    c. Facility layouts;

    d. Utility locations.

6. Tables listing materials, equipment, and specifications;

7. Tables giving material balances; and

8. Appendices, including:

    a. Sample calculations (one example presented and explained clearly for a significant or unique design calculation);

    b. Derivation of equations essential to understanding the report; and

    c. Results of laboratory or field tests.

General correlation between drawings and technical specifications, is a basic requirement of any set of working construction plans and specifications. Before submitting the project specifications, Respondent shall coordinate and cross-check the specifications and drawings and complete the proofing

of the edited specifications and required cross-checking of all drawings and specifications.

B. Operation and Maintenance Plan

Respondent shall prepare an Operation and Maintenance Plan to cover both implementation and long term maintenance of the interim measure(s). The plan shall be composed of the following elements:

1. Equipment start-up and operator training;

   Respondent shall prepare, and include in the technical specifications governing treatment systems, contractor requirements for providing: appropriate service visits by experienced personnel to supervise the installation, adjustment, startup, and operation of the treatment systems, and training covering appropriate operational procedures once the startup has been successfully accomplished.

2. Description of normal operation and maintenance (O&M), including:

   a. Description of tasks for operation;

   b. Description of tasks for maintenance;

   c. Description of prescribed treatment or operation conditions;

   d. Schedule showing frequency of each O&M task; and

   e. Common and/or anticipated remedies.

3. Description of routine monitoring and laboratory testing, including:

   a. Description of monitoring tasks;

   b. Description of required laboratory tests and their interpretation;

   c. Required QA/QC; and

   d. Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.

4. Description of equipment, including:

   a. Equipment identification;

   b. Installation of monitoring components;

   c. Maintenance of site equipment; and

d. Replacement schedule for equipment and installed components.

5. Records and reporting mechanisms required, including:

a. Daily operating logs;

b. Laboratory records;

c. Mechanism for reporting emergencies;

d. Personnel and maintenance records; and

e. Monthly/annual reports to Federal/state agencies.

The Operation and Maintenance Plan shall be submitted with the Final Design Documents.

C. Project Schedule

Respondent shall develop a detailed Project Schedule for construction and implementation of the interim measure(s) which identifies timing for initiation and completion of all critical path tasks. Respondent shall specifically identify dates for completion of the project and major interim milestones which are enforceable terms of this order. A Project Schedule shall be submitted simultaneously with the Final Design Documents.

D. Final Design Documents

The Final Design Documents shall consist of the Final Design Plans and Specifications (100% complete), the Final Draft Operation and Maintenance Plan, and the Project Schedule. Respondent shall submit the final documents, 100% complete, with reproducible drawings and specifications. The quality of the design documents should be such that Respondent would be able to include them in a bid package and invite contractors to submit bids for the construction project.

TASK IV: INTERIM MEASURES CONSTRUCTION QUALITY ASSURANCE PLAN

A. Construction Quality Assurance Objectives

In the CQA plan, Respondent shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to the following: responsibility and authority; personnel qualifications; inspection activities; sampling requirements; and documentation. The responsibility and authority of all organizations (i.e., technical consultants, construction firms, etc.) and key personnel involved in the construction of the interim measures shall be described fully in the CQA plan. Respondent must identify a CQA officer and the necessary supporting inspection staff.

B. Inspection Activities

The observations and tests that will be used to monitor the construction and/or installation of the components of the interim measure(s) shall be summarized in the CQA plan. The plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with all environmental requirements and include, but not be limited to, air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection should also ensure compliance with all health and safety procedures. In addition to oversight inspections, Respondent shall conduct the following activities:

1. Preconstruction inspection and meeting;

   Respondent shall conduct a preconstruction inspection and meeting to:

   a. Review methods for documenting and reporting inspection data;

   b. Review methods for distributing and storing documents and reports;

   c. Review work area security and safety protocol;

   d. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and

   e. Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

   The preconstruction inspection and meeting shall be documented by a designated person and minutes should be transmitted to all parties.

2. Prefinal inspection;

   Upon preliminary project completion, Respondent shall notify EPA for the purposes of conducting a prefinal inspection. The prefinal inspection will consist of a walk-through inspection of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and with the EPA approved interim measure(s). Any outstanding construction items discovered during the inspection will be identified and noted. Additionally, treatment equipment will be operationally tested by Respondent. Respondent will certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be completed where deficiencies are revealed. The prefinal inspection report should outline the outstanding construction items,

actions required to resolve items, completion date for these items, and date for final inspection.

3. Final inspection;

Upon completion of any outstanding construction items, Respondent shall notify EPA for the purposes of conducting a final inspection. The final inspection will consist of a walk-through inspection of the project site. The prefinal inspection report will be used as a checklist with the final inspection focusing on the outstanding construction items identified in the pre-final inspection. Confirmation shall be made that outstanding items have been resolved.

C. Sampling Requirements

The sampling and testing activities, sample size, sample and test locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems should be presented in the CQA plan.

D. Documentation

Reporting requirements for CQA activities shall be described in detail in the CQA plan. This plan shall include such items as daily summary reports, inspection data sheets, problem identification and interim measures reports, design acceptance reports, and final documentation. Provisions for the final storage of all records shall be presented in the CQA plan.

TASK V: REPORTS

A. Progress

Respondent shall at a minimum provide the EPA with signed, bimonthly progress reports containing:

1. A description and estimate of the percentage of the interim measures completed;

2. Summaries of all findings;

3. Summaries of all changes made in the interim measures during the reporting period;

4. Summaries of all contacts with representative of the local community, public interest groups, or state government during the reporting period;

5. Summaries of all problems or potential problems encountered during the reporting period;

6. Actions being taken to rectify problems;

7. Changes in personnel during the reporting period;

8. Projected work for the next reporting period; and

9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. Interim Measures Workplan

Respondent shall submit an Interim Measures Workplan as described in this Attachment.

C. Final Design Documents

Respondent shall submit the Final Design Documents as described in this Attachment.

D. Draft Interim Measures Report

At the "completion" of the construction of the project (except for long term operation, maintenance, and monitoring), Respondent shall submit an Interim Measures Implementation Report to the Agency. The Report shall document that the project is consistent with the design specifications and that the interim measures are performing adequately. The Report shall include, but not be limited to the following elements:

1. Synopsis of the interim measures and certification of the design and construction;

2. Explanation of any modifications to the plans and why these were necessary for the project;

3. Listing of the criteria, established before the interim measures were initiated, for judging the functioning of the interim measures and also for explaining any modification to these criteria;

4. Results of facility monitoring, indicating that the interim measures will meet or exceed the performance criteria; and

5. Explanation of the operation and maintenance (including monitoring) to be undertaken at the facility.

This report shall include the inspection summary reports, inspection data sheets, problem identification and corrective reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications (with justifying documentation), and as-built drawings.

E. Final Interim Measures Report

Respondent shall finalize the Interim Measures Workplan and the Interim Measures Implementation Report incorporating comments received on the draft submissions.

ATTACHMENT D

FINAL DECISION AND RESPONSE TO COMMENTS ON PROPOSED CORRECTIVE MEASURES UNDER RCRA SECTION 3008(h)

APPALACHIAN TIMBER SERVICES, INC. SUTTON, WEST VIRGINIA

I. INTRODUCTION

This Final Decision and Response to Comments ("Final Decision") is being presented by the U.S. Environmental Protection Agency ("EPA"). The purpose of the Final Decision is to describe the Corrective Measures selected by EPA to address releases of hazardous waste and/or hazardous constituents at or from the Appalachian Timber Services ("ATS") Facility, located in Braxton County, Sutton, West Virginia ("Facility"), present the concerns and issues raised during the public comment period and respond to all significant comments received by EPA regarding the proposed Corrective Measure. See Figure 1 of Attachment 1 for the general location of the Facility.

EPA has described and evaluated corrective measure alternatives to mitigate or eliminate releases of hazardous waste and/or hazardous constituents at the Facility in an official document called the Statement of Basis ("SB"), which was issued on August 9, 1996. The SB also describes EPA's preferred Corrective Measure to cleanup the contamination which exists at the Facility and is incorporated by reference and is attached to this document as Attachment 1.

The comments addressed by EPA in this document were communicated to EPA during a thirty (30)-day public comment period which began on August 16, 1996 and ended on September 17, 1996. All of the comments received were carefully reviewed by EPA during the final selection of the Corrective Measure and have been answered in this Response to Comments. Comments received by EPA during the public comment period did not propose any additional corrective measure alternatives and did not suggest any need to change EPA's preferred corrective measure.

Commentors also did not propose any additional alternatives that had not been considered in the Corrective Measure Study ("CMS"). EPA reviewed and considered all comments expressed to and/or received by EPA prior to the issuance of this Final Decision. These comments and questions, as well as EPA's responses, are recorded in the following sections.

II. THE SELECTED REMEDY

The corrective measure selected for the Facility is Alternative 4 in the SB. Based on the findings of the RFI, soil and groundwater at the Facility have been identified as the environmental media requiring corrective measures. EPA's selected remedy requires the Facility to:

- Prevent further creosote contamination from the wood treating operations by installing drip pads at the opening of the wood treating cylinders in accordance with the provisions of West Virginia Code of State Regulations, Title 47-Series 35, Section 7.

- Perform in-situ land treatment (*Bioremediation*) on creosote-contaminated soil at the Facility. Prior to full-scale bioremediation, conduct a bench-scale test to evaluate the waste media and optimum operating conditions. Soil areas that do not meet clean-up standards after bioremediation will be capped with asphalt.

- Excavate or asphalt cap Chromated Copper Arsenate ("CCA") contaminated areas which exceed the media cleanup standards.

- Restrict the Facility deed to require future land owners to maintain the asphalt cap. Limit future land use of the property to industrial uses (i.e., non-residential).

- Install an additional monitoring well on the east side of the existing Clay Encapsulated Disposal Area, to provide sufficient groundwater monitoring coverage for this unit.

- Perform additional ecological impact studies of contaminated media on additional identified endangered species.

- Continue implementation of the current pump and treat system.

- Comply with groundwater clean-up standards for the Facility

EPA has established media cleanup standards for soil and groundwater at the ATS Facility. These standards are shown in Section IX.B. of the SB which is attached as Attachment 1 of this document. EPA's selected remedy provides the best balance among the alternatives with respect to the evaluation criteria, including long-term reliability and effectiveness; reduction of toxicity, mobility, or volume of waste; short-term effectiveness; implementability, and cost.

III. PUBLIC COMMENTS AND EPA RESPONSES

EPA held a thirty (30)-day public comment period for the public to raise any issues relating to the remedy that EPA

proposed in the SB. The public comment period began on August 16, 1996 and ended September 17, 1996. EPA received an oral comment via telephone and written comments via mail.

A. Comment Received Via Telephone.

* EPA received a telephone call from Mr. Ahmad Talebi from the West Virginia Division of Environmental Protection ("WVDEP") on 8/28/96.

Comment 1: Mr. Talebi requested a change to Section VII, page 12 of the SB, where the following is stated: "Under a request from WVDEP, ATS submitted a separate Groundwater Risk Assessment to address... at the facility." Mr. Talebi stated that WVDEP did not request a Groundwater Risk Assessment.

EPA's Response: EPA concurs, and will change the language to read as follows: "ATS proposed to WVDEP, and later submitted a separate Groundwater Risk Assessment to address ... at the facility."

B. Written Comments Received From ATS.

ATS submitted the following comments by a letter dated September 17, 1996. That letter is included as Attachment 2 to this document. All comments from this correspondence, found in Attachment 2 of this document, will be referenced by section, title and page number, with the EPA response immediately below.

Comment 1: Section V.E., Ecological Evaluation, page 2.

EPA's Response: While EPA agrees that a phased approach is appropriate for an ecological assessment, EPA does not agree that the assessment of the ecological impacts on the freshwater mussels should be postponed until after the remedy is fully implemented. An ecological assessment seeks to determine the nature, magnitude, and transience or permanence of observed or expected effects on the existing ecosystem. Critical information and data are gathered during the observation and sampling of an ecosystem under existing conditions for comparison and evaluation with future conditions. Delaying the ecological assessment until after the remedy is completed would severely hamper the ability of ATS to properly understand the nature, magnitude and effect of constituents previously released from the Facility on the ecosystem.

Comment 2: Section VI, Interim Measures, pages 2 and 3.

EPA's Response: Because the groundwater contamination is Facility-wide, EPA established in the Statement of Basis

Facility-wide groundwater clean-up standards which are necessary to protect human health and the environment. As stated further in the Statement of Basis, WVDEP may require even more stringent groundwater clean-up standards for the evaporation spray pond, a WVDEP-regulated unit. EPA and WVDEP will continue to coordinate their oversight of ATS' groundwater remediation efforts. We note further that the Statement of Basis specifically allows for the option of incorporating EPA's Facility-wide groundwater standards in a post-closure permit if accomplished in a timely manner and if EPA is satisfied that the goal of protection of human health and the environment, as required by RCRA 3008(h), is thereby accomplished as well.

Comment 3: Section VII, Summary of Facility Risks, page 3.

EPA's Response: See response to comment 5 below.

Comment 4: Section IX, Summary of Alternatives, pages 3 and 4.

EPA's Response: In this comment, ATS requested that EPA's requirement for offsite disposal of the excavated CCA-contaminated media be eliminated and replaced with the alternative proposed by ATS in its CMS.

In selecting the final remedy, EPA considered the options of removal and/or capping of CCA-contaminated soil. EPA believes that contaminated areas with only CCA, namely, the Debris Burning Pile, should be removed and disposed off-site. The Debris Burning Pile has no creosote contamination, and is a separate, removed area from the main contaminated area which is the Treated Wood Storage Area.

In the Treated Wood Storage Area, two CCA-contaminated areas have been identified in a predominantly creosote contaminated area. These two CCA areas need to be further defined in order to determine the exact magnitude and quantity of soil contamination with CCA and/or creosote. Once the extent of contamination is defined, the CCA-contaminated portions must be removed in order to perform bioremediation on the remaining creosote-contaminated soil. In discussions with ATS concerning the Treated Wood Storage Area and CCA, EPA indicated that limited consolidation and capping near the former CCA treatment cylinder would be an option, but EPA could not agree to the creation of a large unusable area, similar to a landfill. EPA believes that limiting the extent of capping and consolidation of CCA material in the Treated Wood Storage Area will increase the long-term effectiveness of the remedy.

EPA agrees that ATS may use solidification if the Facility can demonstrate to EPA's satisfaction that this technology is an

equivalent remedy to capping.

Comment 5: Section X.B., Attainment of Media Clean-Up Standards, Proposed Groundwater Clean-Up Standards, pages 4 and 5.

EPA's Response: In selecting clean-up standards for constituents identified in groundwater, EPA used the applicable Maximum Contaminant Level ("MCL") defined under the Safe Drinking Water Act. For those constituents for which no MCL was available, EPA used risk-based concentrations as the media clean-up standards. EPA did not use Region III Risk-Based Concentration Table tap water screening levels.

EPA disagrees with ATS concerning the potential use of the groundwater beneath the Facility as a drinking water source. The methodology the Agency generally uses for determining corrective action media cleanup standards for groundwater remediation at a RCRA facility is set forth in EPA's Proposed Subpart S Corrective Action Rule (hereafter referred to as "Proposed Subpart S") and EPA's Groundwater Protection Strategy. As stated in Proposed Subpart S, EPA may determine that groundwater remediation to an established media cleanup standard for a given hazardous waste and/or a hazardous constituent is not necessary if the facility demonstrates that the groundwater:

1) is not a current or potential source of drinking water, and

2) is not hydraulically connected with waters to which hazardous constituents are migrating or are likely to migrate in a concentration(s) greater than an action level(s) specified according to Proposed 40 C.F.R. § 264.522.

Proposed 40 C.F.R. § 264.525(d)(2)(ii).

Proposed Subpart S interprets an aquifer to be "a current or potential source of drinking water" consistent with the approach set forth in EPA's Ground-Water Protection Strategy (August 1984 and as subsequently modified) ("Strategy"). 55 Fed. Reg. 30829. According to the Strategy and Proposed Subpart S, the groundwater is not generally considered a potential drinking water source (Class III as defined in the Strategy) if the water is heavily saline, contains total dissolved solids ("TDS") levels over 10,000 parts per million (or "mg/l"), or is otherwise contaminated beyond levels that allow cleanup using methods reasonably employed in public water system treatment. The groundwater also should not migrate to Class I or II groundwater (as those classes of groundwater are defined in the Strategy) or have a discharge to surface water that could cause degradation.

After review of the above criteria, EPA has determined that the groundwater at the Facility is a potential drinking water source that should be cleaned up to the media cleanup standards set forth in the SB. Indeed, the groundwater beneath and migrating from the ATS Facility meets none of the criteria established by the Strategy and set forth in Proposed Subpart S for a Class III aquifer.

Finally, ATS commented that it may not be able to achieve EPA's clean-up standards due to site specific conditions. EPA may consider technical impracticability in evaluating compliance with a specific clean-up standard. A process for making a demonstration for technical impracticability is typically included in EPA's corrective action consent orders for corrective measures implementation.

IV. DECLARATION

Based on the Administrative Record compiled for this Corrective Action, I have determined that the selected Corrective Measure as set forth in the Statement of Basis and clarified by the Final Decision herein is appropriate and will be protective of human health and the environment.

Date: 9/30/96

W. Michael McCabe
Regional Administrator
U.S. Environmental Protection Agency
Region III