

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO
EASTERN DIVISION

FILED
KENNETH J. MURPHY
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U.S. DISTRICT COURT
SOUTHERN DISTRICT OF OHIO
EAST. DIV. COLUMBUS

STATE OF OHIO,

Plaintiff,

v.

UNITED STATES DEPARTMENT OF
ENERGY, DIVESTED ATOMIC
CORPORATION, et.al,

Defendants.

Civil Action

No. ~~C2-89-732~~

Judge JUDGE SMITH

JOINT REQUEST FOR ENTRY OF CONSENT DECREE

On this date the State of Ohio filed its complaint in the above-captioned case against the United States Department of Energy (hereinafter "USDOE") and Divested Atomic Corporation (hereinafter "Divested Atomic"). The parties, having already agreed upon the appropriate resolution of this action, hereby jointly request the Court to forthwith enter the attached Consent Decree without the need for hearing or further pleading, as evidenced by the signature of counsel for all parties to this Request, and to the Consent Decree.

Respectfully submitted,

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 Case 893

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 U.S. DISTRICT COURT
 SOUTHERN DIST. OHIO
 EAST. DIV. COLUMBUS

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 FOR THE SOUTHERN DISTRICT OF OHIO
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STATE OF OHIO,)
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 UNITED STATES DEPARTMENT OF)
 ENERGY, DIVESTED ATOMIC)
 CORPORATION, et al.,)
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 Defendants.)

Civil Action
 No ~~C2-89-732~~
 Judge Smith

CONSENT DECREE

WHEREAS, on the 29th day of August, 1989, the State of Ohio filed a complaint in the above-captioned case against the United States Department of Energy (hereinafter "USDOE") and Divested Atomic Corporation (hereinafter "Divested Atomic");

WHEREAS, Ohio alleges that defendants have violated various provisions of Federal and Ohio law and regulations, and defendants deny any violation of and any liability under any federal or state statute, regulation or common law;

WHEREAS, the parties wish to ensure the safe and environmentally sound handling of hazardous waste, mixed waste, PCB's, solid waste, and water pollutants at PORTS;

WHEREAS, USDOE and the United States Environmental Protection Agency are negotiating an Administrative Consent Order, pursuant to RCRA section 3008(h) (the "3008(h) Order"), which also addresses the subject matter of this action;

WHEREAS, the parties wish to resolve this action without litigation and have, therefore, agreed to entry of this Consent Decree without the admission or adjudication of any issue of fact or law.

NOW, THEREFORE, it is hereby ordered, adjudged and decreed as follows:

I. JURISDICTION

1.1 The Court has jurisdiction over the matters resolved in this Consent Decree and the parties to the decree.

II. DEFINITIONS

For purposes of this Consent Decree, the following words and abbreviations have the meanings provided below:

2.1 "C.F.R." means Code of Federal Regulations.

2.2 "USDOE" means the United States Department of Energy and its officers, agents and employees.

2.3 "Facility" means the PORTS facility described below.

2.4 "Hazardous waste" means a hazardous waste as defined in 40 C.F.R. § 261 or OAC § 3745-51-03, but does not

include source, special nuclear, or by-product material. It does include the hazardous component of mixed waste.

2.5 Hazardous waste treatment, storage, and disposal areas at PORTS include, but are not limited to:

- A. A land treatment facility consisting of an oil biodegradation plot identified as X-231B.
- B. Two surface impoundments identified as the X-616 chromate reduction sludge lagoons.
- C. ~~Three surface impoundments identified as the X-701B holding pond and sludge containment areas.~~
- D. The hazardous waste storage facility identified as the X-752 building used to store hazardous wastes in containers.
- E. The contaminated materials disposal facility identified as X-749, which is a 7.43 acre facility used for the disposal of low-level radioactive wastes.
- F. The incinerator identified as X-705A.
- G. The X-744G mixed waste container storage area.
- H. The X-326 mixed waste container storage area.

Hereinafter in this Consent Decree, these areas will be referred to by their identification numbers (e.g., "X-231B").

2.6 "Industrial waste" and "other wastes" have the meanings set forth in Ohio Revised Code Section 6111.01(C) and (D) respectively, but do not include source, special nuclear, or byproduct material.

2.7 "Mixed waste" means all waste containing both hazardous waste and source, special nuclear or byproduct material, or, for purposes of this Consent Decree only, other radionuclides.

2.8 "OAC" means Ohio Administrative Code.

2.9 "Ohio EPA" means Ohio Environmental Protection Agency and its representatives, including any contractor(s) retained by Ohio EPA to perform any monitoring, observation, testing, or other activities related to this Consent Decree.

2.10 "O.R.C." means Ohio Revised Code.

2.11 "PCB" or "PCBs" means polychlorinated biphenyls.

2.12 "PORTS" means the Portsmouth Gaseous Diffusion Plant, a facility owned by the Government of the United States under the jurisdiction of USDOE. The facility is located approximately twenty miles north of downtown Portsmouth, Ohio. PORTS operations are located on a 16.2 square kilometer federally owned site.

2.13 "Solid Waste" means a solid waste as defined in RCRA section 1004 (27), 42 U.S.C. 6903 (27), or O.R.C. § 3734.01(E).

2.14 Each of the terms "State", "State of Ohio", and "Ohio", includes all agencies and officers of the State of Ohio.

2.15 "Treatment", "storage", and "disposal" have the same meanings as the definitions provided therefor in 40 C.F.R. § 260.10 and OAC § 3745-50-10.

2.16 "Waste units" mean all areas which have been used for the treatment, storage or disposal of the solid waste component of radioactive waste and other solid wastes, all areas used for treatment or disposal of waste oils, all areas which are contaminated by spills or leaks of materials which are, or when spilled or leaked become, hazardous wastes, industrial wastes or other wastes, a sanitary landfill identified as X-735, a construction spoil area used for disposal of construction debris, brush and solid wastes, a classified materials burial ground identified as X-749A, and the units and areas more specifically identified as the Peter Kiewit Landfill, X-231A oil biodegradation plot, X-734 landfill, X-530 switch yard, X-533 switch yard, X-230-K South Holding Pond, South Holding Pond waste pile, X-611A and B lime lagoons, X-342-C HF pit, X-344D HF pit, X-615 inactive sewage plant, X-701-C Neutralization pit, process lines from buildings X-700 and X-705, X-710 Neutralization pit, East drainage ditch, RCW system, West drainage ditch impoundment basin, X-701-B North oil plot, X-2230 M Southwest Holding Pond, X-230 J-7 pond, X-230-L North holding pond, oil construction spoil area, X-740 waste oil handling facility, X-230-J-5 West holding pond, X-2230 northwest holding pond, the X-6619 sewage treatment plant, X-720 neutralization pit, X-750 waste oil tank, X-230J6 northeast holding pond, X-330 PCB storage, X-333 PCB storage, X-344A neutralization pit, X-614 sewage lift stations, X-621 coal runoff impoundment, X-760 waste water neutralization pit, X-700 contaminated tile drain system, X-2230N west holding

pond, south construction spoil area, two-acre barren area identified in the Portsmouth Environmental Survey dated August 21, 1987, X-230J3 runoff pond, X-617 pH adjustment facility, X-633 cooling tower basin, X-630 cooling tower basin, X-626 cooling tower basin and areas where PCB's have been disposed as defined in 40 C.F.R. Part 761.

2.17 Except as otherwise defined in the preceding definitions or as defined below, the terms used in this Consent Decree and any document required by this Consent Decree shall have the same meaning as used in Chapters 3734 and 6111 of the Ohio Revised Code, the counterpart provisions of RCRA and regulations promulgated under any of the foregoing statutes.

III. PERSONS BOUND

3.1 This Consent Decree shall apply to and be binding upon USDOE, its successors and assigns. USDOE shall direct its management contractor and any replacement management contractor to comply with this Consent Decree. In addition, USDOE shall provide copies of this Consent Decree to all contractors performing any of the work called for or referenced herein.

IV. CALCULATION OF TIME

4.1 Unless otherwise stated in this Consent Decree, where this Consent Decree requires actions to be taken within a specified period of time (e.g. "within thirty days"), this time period shall begin the day after the entry of this Consent Decree.

V. HAZARDOUS WASTE REQUIREMENTS

5.1 USDOE shall conduct its current and future treatment, storage, and disposal of all hazardous and mixed waste at PORTS in accordance with Federal and Ohio hazardous waste laws and hazardous waste regulations, including but not limited to the permit requirements of these laws and regulations. ^{*} [However, ~~USDOE is not required to comply with the above requirements, with regard to mixed waste, where compliance will increase the risk to human safety and health or the environment~~] or, with respect to hazardous or mixed waste, where the requirements would be inapplicable due to the restrictions of 42 U.S.C. § 6905(a). Should USDOE not be required to comply with a hazardous waste requirement due to any of the circumstances described in the preceding sentence, USDOE in consultation with Ohio EPA shall instead handle the hazardous or mixed waste in a manner as protective of human safety and health and the environment as if the hazardous waste requirement had been applied.

5.2 USDOE has submitted to Ohio EPA closure plans for final closure of units X-231B, X-616, X-701B and X-749. The closure plans include the removal of sludge and highly contaminated soil at X-701B, capping at X-749 and tasks and implementation schedules for the performance of the activities described in paragraphs 5.3, 5.4, 5.6 and 5.7 below. USDOE shall implement the closure plans in accordance with the implementation schedules contained in these plans.

5.3 USDOE has completed and submitted to Ohio EPA, and Ohio EPA has reviewed, the results of a groundwater quality assessment for units X-616, X-231B, X-701B and X-749. USDOE shall make available for inspection by Ohio EPA raw data from soil gas monitoring conducted by IEP, Inc., and shall provide copies of such data as requested by Ohio EPA.

5.4 Within one hundred and twenty (120) days of approval by Ohio EPA of the closure plan for unit X-231B, USDOE shall submit to Ohio EPA for review and approval a study of the options for final closure of unit X-231B. Within three hundred (300) days after receipt of the Ohio EPA selection of the preferred closure option, USDOE shall close unit X-231B in accordance with the option approved by Ohio EPA.

5.5 USDOE has submitted to Ohio EPA a permit to install application for the modification of unit X-735 in order to allow disposal in unit X-735 of treated chrome sludge from unit X-616. Within forty-five (45) days after receipt of Ohio EPA notice of any deficiencies in this application, USDOE shall submit revisions to the application that are responsive to the Ohio EPA notice. Within one hundred and eighty (180) days after receipt of Ohio EPA final action on the application, USDOE shall complete final closure of unit X-616 in accordance with the option as approved by Ohio EPA.

5.6 Within ninety (90) days after receipt of Ohio EPA approval of the closure plan for unit X-749, USDOE shall submit to Ohio EPA for review and approval a study of the options for

final closure of unit X-749. Within three hundred and sixty (360) days after receipt of Ohio EPA's selection of the preferred option, USDOE shall complete capping and final closure of unit X-749 in accordance with the option as approved by Ohio EPA.

5.7 Within ninety (90) days after Ohio EPA approval of the closure plan for unit X-701B, USDOE shall award a contract for removal of all sludge, and a one foot layer of soil from the sides and bottom, from the X-701B holding pond and sludge containment ponds. Within two hundred and ten (210) days after Ohio EPA approval of the closure plan, USDOE shall complete removal of this sludge and soil and shall complete construction of a drainage system to keep the X-701B holding pond and sludge containment ponds de-watered. Within two hundred and forty (240) days after Ohio EPA approval of the closure plan, USDOE shall submit to Ohio EPA for review and approval a study of the options for final closure of unit X-701B. Within three hundred and sixty (360) days of Ohio EPA selection of the preferred closure option, USDOE shall complete closure of unit X-701B in accordance with the option as approved by Ohio EPA.

~~5.8~~ Closure shall be deemed to have occurred upon completion of the construction called for in the closure option selected by the Ohio EPA. Operation of the selected option shall continue for the time period designated in the final closure option study and post closure plan approved by the Ohio EPA.

5.9 The parties recognize that the closure activities contemplated under paragraphs 5.4 through 5.7 will require

compaction of clay materials as part of construction of a clay liner in the X-735 landfill, and any clay caps approved as part of a RCRA unit closure, and further that such construction cannot be completed in a certifiable manner during inclement winter weather periods that may occur from October 31 to February 28. In the event that any of the following circumstances occurs, the time for completion of final closure of the applicable RCRA unit shall be extended for the additional time taken by Ohio EPA for approval of final action, plus such additional time as is necessary to avoid construction of the clay liner or clay caps during inclement winter weather periods that may occur from October 31 to February 28:

[A] Delay in Ohio EPA approval of the closure plans beyond June 1, 1989; or

[B] Delay in final action by the director of the Ohio EPA on the X-735 landfill permit application beyond August 1, 1989; or

[C] Delay in Ohio EPA approval of the final closure options studies beyond ninety (90) days after submittal by USDOE.

The parties also recognize that unusually inclement weather conditions may from time to time prevent construction work and delay completion of a closure activity undertaken pursuant to this Section V. In such an event, USDOE shall have the right to seek additional time to complete a closure activity

based upon the documented inability of its contractor to work as a result of unusually inclement weather conditions.

5.10 Within thirty (30) days, USDOE shall submit the facility contingency plan to appropriate emergency response authorities, including the Emergency Response office of Ohio EPA and that of communities in the vicinity of the plant.

5.11 USDOE shall maintain a written operating log pursuant to O.A.C. § 3745-65-73 and shall describe in the log the following information: ~~each hazardous and mixed waste received at PORTS (including all such wastes generated at PORTS); the quantity of each such waste; methods and dates of treatment, storage and disposal for each such waste; and the location and quantity of each such waste treated, stored or disposed at PORTS.~~

VI. PCB RELEASES

6.1 USDOE shall investigate any past or present disposal and/or placement and/or discharge of PCBs into soil or water at PORTS. For those locations not included within closure plans or cleanup action plans submitted to Ohio EPA by USDOE under the terms of Section V of this Consent Decree or Section VII of this Consent Decree, USDOE shall within 270 days develop a PCB Spill Cleanup Plan consistent with 40 C.F.R. § 761 Subpart G or any ~~modification~~ thereto. USDOE shall submit the plan to Ohio EPA and implement the plan in accordance with the procedures set forth in Section XI of this Consent Decree.

VII. HAZARDOUS WASTE, WATER POLLUTION, AND
SOLID WASTE CLEANUP REQUIREMENTS

7.1 Trichloroethylene ("TCE") Report and Removal:
USDOE has submitted a revised proposal for further steps to remove, minimize and monitor the TCE in the groundwater in the vicinity of X-701B. Ohio EPA is reviewing the revised proposal. Within thirty (30) days of receiving any Ohio EPA comments on the revised proposal USDOE shall revise the proposal to respond to those comments and resubmit it to Ohio EPA. Within thirty (30) days from Ohio EPA's approval of the proposal, USDOE shall begin its implementation.

7.2 Solid Waste Landfills:

[A]. Classified Wastes Landfill: USDOE has submitted to Ohio EPA a closure plan with a proposed schedule for the X-749A classified wastes burial site. Closure shall be completed within one (1) year following receipt of notice of Ohio EPA approval of the closure plan.

[B]. Low Level Wastes Landfill. USDOE has submitted to Ohio EPA a closure plan for the existing low level radioactive wastes burial site. Closure shall be completed within one (1) year of USDOE's receipt of notice of Ohio EPA's approval of the closure plan.

7.3 Facility Investigation and Cleanup Alternatives Study: For units X-231B, X-701B, and X-749 and each Waste Unit, USDOE shall conduct facility investigations (except where USDOE, with the approval of Ohio EPA has determined, based on previous assessment(s) that a facility investigation is not warranted) and

cleanup alternatives studies in accordance with this Decree and Exhibits A and B attached hereto. The facility investigations shall determine the nature and extent (on-site and off-site) of water pollution, soil contamination, and other environmental pollution caused by solid wastes, industrial wastes, other wastes, and hazardous wastes.

7.4 Facility Investigations and Milestones: To accomplish the facility investigations required herein, USDOE shall award a contract for those tasks as soon as possible. Within fifteen (15) days after the effective date of this Consent Decree, USDOE shall submit a general facility investigation workplan to accomplish these tasks to Ohio EPA for approval consistent with the terms of Section XI below. The general facility investigation workplan shall include a Quality Assurance Project Plan, a Project Management Plan, a Health and Safety Plan, a Community Relations Plan, a detailed facility map, and a Data Management Plan for each site or source.

The general facility investigation workplan shall call for accomplishment of Tasks 1 through 4, 6, and 7 of Exhibit A for units X-231B, X-701B, X-749 and all Waste Units in accordance with the schedule set forth in Exhibit B. To the extent that the general facility workplan addresses the requirements of Tasks 1 through 4(a), USDOE may use all or portions of the Quality Assurance Project Plan, the Health and Safety Plan, the Community Relations Plan, the Project Management Plan, and the Data

Management Plan in preparation of subsequent workplans for facility investigations of individual quadrants.

7.5 USDOE shall award a contract in accordance with the schedule set forth in Exhibit B, to accomplish the cleanup alternatives study (CAS) listed as Tasks 5 and 8 through 15 of Exhibit A for units X-231B, X-701B, X-749 and any Waste Units identified as having released or having the potential for releasing industrial wastes, other wastes, solid wastes mixed with radionuclides, hazardous waste or hazardous constituents into the environment. At the completion of each facility investigation, a report detailing the findings of the investigation shall be submitted to Ohio EPA in accordance with the schedule set forth in Exhibit B.

7.6 Workplans and Cleanup: Within ninety (90) days of Ohio EPA's approval of the CAS study report for each phase, including approval of the preferred alternatives for cleanup action of units X-231B, X-701B, X-749 and Waste Units in such phase, USDOE shall submit to Ohio EPA a workplan describing the manner in which USDOE will implement the cleanup action for each such phase. Each such workplan shall include general plans, design criteria, and a schedule for preparation of detailed engineering plans, specifications and construction drawings as necessary to implement the approved cleanup actions, and schedules for selection of contractors, commencement of work, and completion of work. Following Ohio EPA approval of each such

workplan, USDOE shall implement the cleanup action in accordance with the approved schedule.

7.7 When workplans and reports described in this section are approved by Ohio EPA, they shall be incorporated by reference into this Consent Decree.

7.8 The data obtained pursuant to Sections V and VI above may be used, where appropriate, in the work conducted in accordance with this section.

VIII. OFF-SITE WELL SAMPLING PROGRAM

8.1 USDOE has submitted to Ohio EPA all results of groundwater monitoring obtained by sampling off-site residential wells. USDOE shall evaluate past data from off-site residential well sampling and submit a plan for future off-site residential well monitoring. USDOE shall implement the plan upon approval by Ohio EPA in accordance with Section X of this Consent Decree. USDOE shall submit a copy of a report of the results of future sampling to Ohio EPA within thirty (30) days of receipt of the report. Upon request by Ohio EPA, the underlying data shall be submitted.

8.2 Should USDOE discover evidence of off-site groundwater contaminant migration from PORTS, USDOE shall submit to Ohio EPA within sixty (60) days for approval a plan for the installation of a network of groundwater plume interceptor wells, and shall manage contaminated groundwater in a manner consistent with all Federal, State, or local laws, regulations, rules, or ordinances. These activities shall be designed to mitigate any

potential threat to human health and/or the environment, consistent with and integrated into any long term solution at the facility, and implemented according to the schedule in the approved plan.

IX. STORAGE AREAS

9.1 USDOE has submitted a plan and schedule for identifying, removing, and disposing of soils contaminated with hazardous wastes, mixed wastes, solid wastes, PCB's, industrial wastes, or other wastes, if any, from surface spillage around fuel, chemical, and hazardous material storage areas and for installation of spill containment measures in and around such storage areas. USDOE shall implement the plan upon approval by Ohio EPA in accordance with Section XI of this Consent Decree.

X. ADDITIONAL WORK

10.1 Should Ohio EPA determine that additional work is necessary to achieve the purposes of this Consent Decree, Ohio EPA may notify USDOE of the need for such additional work. Within forty-five (45) days of receipt of such notification from Ohio EPA, USDOE shall prepare and submit to Ohio EPA for review and approval a new or revised document incorporating the additional work.

✓ 10.2 Should USDOE determine that additional work is necessary to achieve the purposes of this Consent Decree, USDOE shall submit to Ohio EPA for approval USDOE's plan for performing such work.

10.3 In the event that additional work is necessary for any task described in this Consent Decree, the deadline for completing such task(s) shall be extended by the amount of time required to perform the additional work required, including the period for time required to plan and/or obtain approval from Ohio EPA for the performance of such work.

XI. REVIEW OF SUBMITTALS

11.1 With regard to each closure plan, workplan, report, study or other document that USDOE is required under this Consent Decree to submit to Ohio EPA for review and approval, Ohio EPA will notify USDOE in writing thirty (30) days after receipt of such document of its approval, disapproval, or requirement for modifications of the document, or any parts thereof. The notice shall specify the deficiencies in the event of any disapproval or proposed modification and list the reasons for the disapproval or proposed modification. In the event that any document requires a longer review period, Ohio EPA will notify USDOE in writing of that fact within thirty (30) days after receipt of the document. If Ohio EPA gives notice of such delay to USDOE, any delay by USDOE in performance of the work under this Consent Decree which is due to Ohio EPA document review time beyond thirty (30) days shall not be considered a violation of this Consent Decree, and the time allowed for performance by USDOE shall be extended by the period of time resulting from the Ohio EPA delay. If USDOE shall dispute any

such disapproval or proposed modification the parties shall resolve the dispute in accordance with Section XII.

11.2 Within thirty (30) days (unless Ohio EPA agrees to a longer period of time) of the resolution of any dispute under Paragraph 12.3 or, if no dispute arises, within thirty (30) days of receipt of a disapproval or requirement to modify from the Ohio EPA, USDOE shall submit to Ohio EPA those revisions necessary to correct outstanding deficiencies or incorporate requested modifications.

11.3 Except for minor field changes agreed to by the Project Coordinators for the parties, no modification or additional changes shall be made by USDOE to any closure plan, workplan, report or study approved by Ohio EPA without prior written notification to and written approval by Ohio EPA. The notification required by this paragraph shall set forth the nature of and reasons for the desired modification.

XII. RESOLUTION OF DISPUTES

12.1 Should Ohio or USDOE have a good faith dispute under this Consent Decree, the procedures of this section shall apply except as specifically set forth elsewhere in this Consent Decree.

12.2 During the pendency of any dispute, Ohio and USDOE agree that they shall continue to implement those portions of this Consent Decree which are not in dispute and which Ohio determines can be reasonably implemented pending final resolution of the issue(s) in dispute. If Ohio determines that all or part

of those portions of work which are affected by the dispute should stop during the pendency of the dispute, USDOE shall discontinue implementing those portions of the work. Ohio and USDOE agree that they shall make reasonable efforts to informally resolve all disputes.

12.3 Disputes concerning any closure plan, workplan, report, study or other document that USDOE is required under this Consent Decree to submit to Ohio EPA for review and approval shall be resolved pursuant to this paragraph 12.3 in lieu of paragraph 12.4.

[A]. USDOE may request a meeting with Ohio EPA within five (5) working days of its receipt of the written notice required by paragraph 11.1 to discuss or dispute any deficiencies specified in the notice of disapproval or a requirement to modify the document under review. If USDOE fails to request such a meeting within five (5) working days, USDOE shall be deemed to have agreed to the position taken by Ohio EPA. Such meeting shall be held within five (5) working days, if possible, of such request, and may be conducted by telephone unless one of the parties requests a face-to-face meeting. To facilitate such meetings, USDOE and Ohio EPA each shall appoint a project coordinator, who shall make reasonable efforts to resolve all disputes or disagreements informally.

[B]. Disputes not resolved by the project coordinators shall be referred to the Submittals Dispute Resolution

Committee within five (5) working days, if possible. The Submittals Dispute Resolution Committee shall have four members consisting of one individual designated by Ohio EPA, one designated by USDOE and the two project coordinators. The Ohio EPA designee shall be the Chief, Division of Solid and Hazardous Waste Management, or the Chief, Division of Emergency and Remedial Response, who shall co-chair the Committee with the USDOE designee, the USDOE Director of Enriching Operations.

[C]. Within three (3) working days of receipt of a disputed matter, the Submittals Dispute Resolution Committee shall meet and attempt resolution. Meetings may be conducted by telephone, unless one of the members requests a face-to-face meeting. Disputed matters not resolved by the Committee within five (5) working days of receipt shall be referred to the Deputy Director of Remedial and Technical Programs, Ohio EPA, for a final decision.

12.4 Any good faith dispute over the interpretation of this Consent Decree or over whether a term of this Consent Decree has been violated, shall be resolved pursuant to this paragraph 12.4 in lieu of paragraph 12.3.

[A]. USDOE shall, within fifteen (15) days of any action by Ohio which it is disputing, provide Ohio with a written notice of dispute. USDOE shall, within thirty (30) days of any such action by Ohio which it is disputing, provide Ohio with a written statement of dispute setting

forth the nature of the dispute, USDOE's position with respect to the dispute and the information USDOE is relying upon to support its position. If USDOE does not provide such written notice within the fifteen (15) day period, or after such notice fails to provide a written statement to Ohio within the thirty (30) day period, USDOE shall be deemed to have agreed to the position taken by Ohio.

[B]. Upon receipt of the written statement of dispute, Ohio and USDOE shall engage in dispute resolution among the project coordinators. The project coordinators shall have fourteen (14) days from the receipt by Ohio of the written statement of dispute to resolve the dispute. During this period the project coordinators shall meet or confer by telephone as many times as necessary to discuss and attempt resolution of the dispute. If a resolution cannot be reached on any issue within this fourteen (14) day period, either Ohio or USDOE may, by written notice, elevate the dispute to the Dispute Resolution Committee (DRC) for resolution.

[C]. DOE and Ohio shall each designate one individual to serve on the DRC. The individuals designated to serve on the DRC shall be those designated in subparagraph [D], or their delegate authorized to serve on the DRC on behalf of such designated individual, for the purposes of dispute resolution under this Consent Decree. The DRC will serve as

a forum for resolution of disputes for which agreement has not been reached pursuant to subparagraph [B].

[D]. The Ohio designated member of the DRC is the Chief, Division of Solid and Hazardous Waste Management, Ohio EPA. The USDOE designated member is the USDOE Asst. Manager for Enriching Operations. Notice of any delegation of authority from a Party's designated member on the DRC shall be provided to all other Parties.

[E]. If both designated members of the DRC do not agree on a resolution of the dispute within thirty (30) days, either party may institute an action in this Court to resolve the dispute under this Consent Decree.

[F] If either Ohio or USDOE believes that a dispute is not a good faith dispute, or that a delay would pose or increase a threat of harm to the public or the environment, either party may petition the Court for relief without following the dispute resolution procedures of this paragraph 12.4.

12.5 The pendency of any dispute under this section shall not affect USDOE's responsibility for timely performance of the work required by this Consent Decree, except that the time period for completion of work affected by such dispute shall be extended for a period of time not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein if the delay will not pose or increase a threat of harm to the public and the environment and if the parties agree that the performance of such work could not

reasonably continue during the pendency of such dispute. All elements of the work required by this Consent Decree which are not affected by the dispute shall continue and be completed in accordance with the work plan schedule.

12.6 Within thirty (30) days of resolution of any dispute, USDOE shall incorporate the resolution and final determination into the appropriate plan, schedule or procedures and proceed to implement this Consent Decree according to the amended plan, schedule or procedures.

12.7 In the case of a dispute under this Section which involves any potential conflict with USDOE's actions under the 3008(h) Order (including but not limited to cleanup standards, investigation methods, timetables and remedial actions), a representative from U.S. EPA shall be invited to participate in the dispute resolution committees and all preceding phases of dispute resolution.

12.8 Resolution of a dispute pursuant to this section of the Consent Decree constitutes a final resolution of any dispute arising under this Consent Decree.

12.9 In any dispute subject to dispute resolution, the parties may by written agreement modify the procedures of Paragraphs 12.1 through 12.8 above, including but not limited to an extension or shortening of the times therein or the waiver of any provision set forth herein.

XIII. ACCESS

13.1 USDOE shall provide access to PORTS to Ohio EPA for the purpose of monitoring, sampling and observing activities carried out under this Consent Decree. Ohio EPA agrees that it will comply with all statutes, rules and regulations for personnel safety and site security. This paragraph shall not be construed to eliminate or restrict any State right to seek access to PORTS which it may otherwise have under Federal or State law.

13.2 To the extent that activities required by this Consent Decree must be carried out on property other than USDOE's property, USDOE shall use its best efforts to obtain access rights from those property owners which shall provide for reasonable access for USDOE, Ohio EPA and their authorized representatives. In the event that USDOE is unable to obtain such access rights, USDOE shall promptly notify Ohio EPA of its inability to reach such agreement and USDOE's efforts to obtain such agreements.

XIV. PERMITS AND APPROVALS

14.1 The State of Ohio will use its best efforts to review in a timely manner, following USDOE application, any permits necessary for USDOE to carry out the work required pursuant to this Consent Decree.

XV. PAYMENTS AND PROJECTS

15.1 Divested Atomic shall pay to the State of Ohio in full and final settlement of disputed claims brought by the State of Ohio against Divested Atomic in this action, the sum of One

Hundred Twenty-Five Thousand Dollars (\$125,000.00) by certified check or by wire transfer payable to the order of "Treasurer, State of Ohio" for deposit into the "Hazardous Waste Cleanup Fund." This sum shall be paid pursuant to the following schedule:

[A]. Twenty-Five Thousand Dollars (\$25,000.00) within thirty (30) days from the entry of this Consent Decree;

[B]. Twenty-Five Thousand Dollars (\$25,000.00) on or before January 1, 1990; and

[C]. Seventy-Five Thousand Dollars (\$75,000.00) on or before January 1, 1991.

These payments, if made by check, shall be delivered to Jennifer Tiell or her successor on the Legal Staff of Ohio EPA, or to another Ohio EPA employee if directed in writing by the State.

15.2 USDOE shall perform the following projects in conjunction with its activities at PORTS, provided, that USDOE shall not be required to expend more than a total of two hundred thousand dollars (\$200,000) in completing these projects, although it may expend more funds at its discretion. USDOE and Ohio EPA have agreed to list the projects in descending order of priority, so that USDOE will concentrate its efforts on completion of the higher priority project before performing the project with the next highest priority.

[A]. Develop a wetland wildlife habitat of approximately twenty (20) acres on the site presently

occupied by the water treatment sludge unit at PORTS identified as X-611A. USDOE shall plan and construct the wetland wildlife habitat in consultation with Ohio EPA.

The parties agree, and USDOE admits for the purposes of 42 U.S.C. § 1344, that after the wetland area is created it will be a "water of the United States" or a "navigable water" as defined at 42 U.S.C. § 1362 (7), and thus subject to the restrictions and permit requirements of 42 U.S.C. § 1344. USDOE shall provide thirty (30) days written notice to Ohio EPA prior to applying for any permit under § 1344.

[B]. Perform a feasibility study for developing a wetland wildlife habitat on the site presently occupied by the water treatment sludge unit at PORTS identified as X-611B, and, if feasible, USDOE shall develop such habitat in consultation with Ohio EPA.

The parties agree, and USDOE admits for the purposes of 42 U.S.C. § 1344, that after the wetland area is created it will be a "water of the United States" or a "navigable water" as defined at 42 U.S.C. § 1362 (7), and thus subject to the restrictions and permit requirements of 42 U.S.C. § 1344. USDOE shall provide thirty (30) days written notice to Ohio EPA prior to applying for any permit under § 1344.

[C]. Provide nuclear emergency response training, for up to thirty (30) Ohio EPA inspectors, conducted by an authority recognized in this field. The purpose of this training is to prepare the inspectors to respond

to nuclear emergencies and to protect themselves from injury during these response activities.

[D]. Perform DRASTIC mapping of the groundwater resources in Pike County and other counties designated by Ohio EPA, using the procedures specified by Ohio EPA.

[E]. Present hazardous waste management seminars for small quantity generators of hazardous waste, in a manner approved by Ohio EPA.

[F]. Provide to Ohio EPA portable equipment for use in the surveillance of penetrating radiation and surface radioactive contamination. USDOE shall provide training for up to thirty (30) persons for the use of this equipment. For a period of two (2) years, USDOE shall provide maintenance and repair of the equipment and quarterly calibrations at PORTS for the equipment.

[G]. Perform other projects mutually acceptable to USDOE and Ohio EPA.

XVI. RESOLUTION OF INCONSISTENCIES

16.1 Should USDOE identify any inconsistency between any of the laws, rules, regulations, guidance or orders which will affect any of the work required by this Consent Decree, USDOE shall provide written identification to Ohio EPA of each such inconsistency, a description of its effect on the work to be performed, and USDOE's recommendation, along with the rationale for each recommendation, as to which requirement should be followed. USDOE shall implement the affected work based upon

Ohio EPA's direction in resolving any such inconsistencies, except in the case of inconsistencies between federal and state requirements, in which case USDOE and Ohio will attempt to resolve the dispute pursuant to the dispute resolution procedures in Section XII. If they are unable to reach agreement, then both reserve their rights to seek judicial review of the dispute.

XVII. NOTICE

17.1 All submissions and notifications made under this Consent Decree shall be sent to the following:

For USDOE:

Director, Enriching Operations Division United
States Department of Energy
200 Administrative Road (Courier or Express Mail)
P.O. Box 2001 (Mailing Address)
Oak Ridge, Tennessee 37831-8651

DOE Site Manager
Portsmouth Gaseous Diffusion Plant
3930 U.S. Rt. 23 (Courier or Express Mail)
P.O. Box 628 (Mailing Address)
Piketon, Ohio 45661

For Ohio EPA:

Chief
Division of Solid and Hazardous Waste
Management
Ohio Environmental Protection Agency
1800 Watermark Drive
Columbus, Ohio 43266-0149

and

Project Coordinator, Piketon Facility
Ohio Environmental Protection Agency
Southeast District Office
2195 Front Street
Logan, Ohio 43138

USDOE or Ohio EPA may change the person to whom notice shall be sent by sending written notification of the change to the other party.

XVIII. RELEASES

18.1 The State hereby releases, covenants not to sue and not to bring any action, whether civil, criminal or for administrative findings and orders, against Divested Atomic Corporation ("Divested Atomic"), Goodyear Atomic Corporation ("Goodyear"), Martin Marietta Energy Systems, Inc. ("Marietta"), the United States or any department or agency thereof, or any past or present officer, director, official, employee, agent, or contractor (and any past or present official, officer, director, employee, agent or sub-contractor of such contractor), of Divested, Goodyear, Marietta, or the United States, with respect to the claims contained in the Complaint and all claims under O.R.C. Chapter 3734 at Ports known to OEPA at the time this action is filed. The parties agree that this Consent Decree supersedes the Ohio EPA Director's Findings and Orders issued November 22, 1988.

18.2 By executing this Consent Decree, the State of Ohio expressly reserves for further action or enforcement and does not discharge, release, or in any way affect any right, demand, claim, or cause of action which it has, or may have against any person or entity not released in paragraph 18.1 above.

18.3 The parties agree to cooperate with each other in identifying other potential sources of contamination which may affect PORTS or the surrounding area.

XIX. COMPLIANCE

19.1 Except as specifically set forth in this Consent Decree, USDOE shall not be excused from compliance with any

applicable federal and state laws in carrying out the provisions of this Consent Decree. USDOE agrees to advise the State of Ohio of its efforts to obtain the appropriated funding necessary to implement this Consent Decree. If appropriated funds necessary to fulfill an obligation under this Consent Decree are not available, the parties agree to utilize the dispute resolution procedures of Paragraphs 12.2 and 12.4 [A]-[D] to discuss whether the state will, in its sole discretion, agree to make appropriate adjustments to the action dates for obligations which require the payment or obligation of such funds. If no agreement is reached, the State of Ohio and USDOE agree that in any judicial proceeding seeking to enforce the terms of this Consent Decree and/or to find USDOE in contempt for failure to comply or for delay in compliance with such terms, USDOE may raise as a defense that its failure or delay was caused by circumstances beyond its control or that such failure or delay was caused by the unavailability of appropriated funds. While the State of Ohio disagrees that such defenses exist, the parties do agree and stipulate that it is premature at this time to raise and adjudicate the existence of such defenses. This paragraph 19.1 does not constitute a waiver by USDOE of its position that its obligations under this Consent Decree are subject to the provisions of the Anti-Deficiency Act, 31 U.S.C. § 1341, nor does it constitute a waiver by the state of its position that USDOE's obligations under this Consent Decree are not subject to the Anti-Deficiency Act.

XX. USE OF DECREE

20.1 This Consent Decree was negotiated and executed by the parties in good faith to avoid expensive and protracted litigation and is a settlement of claims which were vigorously contested, denied and disputed as to validity and amount. The execution of this Consent Decree is not an admission of liability with regard to any issue dealt with in this Consent Decree. Accordingly, it is the intention of the parties, the parties hereby agree, and the Court orders, that with the exception of this proceeding, any proceeding to adjudicate a permit application (but only to the extent necessary to prove the requirements of the Consent Decree), any proceeding to determine whether the wetlands referred to in paragraph 15.2 are subject to 42 U.S.C. § 1344, and any other proceeding brought by the parties to enforce this Consent Decree, to the extent the parties can bind themselves and others, this Consent Decree shall not be admissible in any judicial or administrative proceeding whether civil or criminal, or in state or federal court, and regardless of whether the gravamen of such action or proceeding is based in tort, contracts or statute:

XXI. EFFECTIVE AND TERMINATION DATES

21.1 This Consent Decree shall be effective upon the date of its entry by the Court.

21.2 This Consent Decree shall terminate upon completion of the mandatory relief ordered herein, or upon the passage of five (5) years from its effective date, whichever is later.


XXII. MISCELLANEOUS

22.1 USDOE shall require that all of its contractors managing PORTS comply with applicable hazardous waste, water pollution, solid waste and PCB laws and the provisions of this Consent Decree.

22.2 Without predetermining whether or not the President can exempt the facility from any provisions of this Consent Decree, nothing in this Consent Decree shall preclude, restrict or expand any right or authority of the President of the United States contained in 33 U.S.C. § 1323 or 42 U.S.C. § 6961.

22.3 The Court shall maintain jurisdiction over this Consent Decree for the purpose of enabling the parties to apply to the Court for any further orders that may be necessary to construe, carry out, or enforce compliance with the terms and conditions set forth in this Consent Decree.

ENTERED THIS 31st DAY OF AUGUST, 1989



UNITED STATES DISTRICT JUDGE

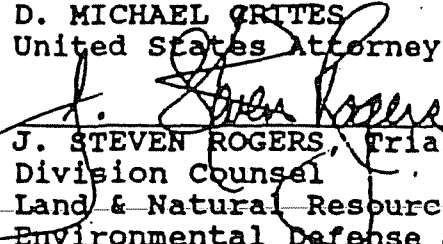
APPROVAL OF COUNSEL ON BEHALF OF THE PARTIES:

ANTHONY J. CELEBREZZE
Attorney General of Ohio

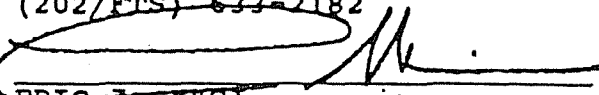
RICHARD B. STEWART
Assistant Attorney General
Land & Natural Resources Division
U.S. Department of Justice

D. MICHAEL CRITES
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Attorneys for Federal Defendants

APPROVAL OF COUNSEL
ON BEHALF OF THE PARTIES (CONT.)



DIVESTED ATOMIC CORPORATION
BY: JOHN M. ROSS
ATTORNEY FOR DIVESTED ATOMIC
CORPORATION

EXHIBIT A

STATEMENT OF WORK
FACILITY INVESTIGATION/CLEANUP ALTERNATIVES STUDY

FACILITY INVESTIGATION

PURPOSE:

The purpose of this facility investigation is to determine the nature and extent of the problem at the site and off-site and to gather all necessary data to support the cleanup alternatives study. US DOE shall furnish all personnel, materials, and services necessary for, or incidental to, performing the facility investigation at the site.

SCOPE:

The facility investigation consists of seven tasks:

- Task 1 --- Description of Current Situation
- Task 2 --- Investigation Support
- Task 3 --- Site Investigations
- Task 4 --- Site Investigation Analysis
- Task 5 --- Laboratory and Bench-Scale Studies
- Task 6 --- Final Report
- Task 7 --- Additional Requirements

[Task 1 -- DESCRIPTION OF CURRENT SITUATION]

US DOE shall describe the background of the site and its problems and outline the purpose and need for facility investigation of the site. Data gathered during previous investigations, site inspections, and other relevant activities shall be used. Previous investigations shall be summarized and referenced.

- a. Site Background. Prepare a summary of the regional location, pertinent area boundary features, and general site physiography, hydrology, geology, and current and historic land and water use. The total area of the site and the general history relative to the use of the site for hazardous wastes, pollutants, industrial wastes or other wastes, activities, etc. should be defined.

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By: Messy Carr Date 11-22-81

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- b. Nature and Extent of Problem. Prepare a summary of actual and potential on-site and off-site health and environmental effects. This summary shall include: [the evaluation performed under Section 3b of the Findings and Orders] the types, physical states, and amounts of hazardous wastes, pollutants, industrial wastes or other wastes; the existence and condition of drums, tanks, landfills, surface ponding, and other containers; affected media and pathways of exposure; contaminated releases such as leachate and runoff; and any human or environmental exposure. Emphasis shall be placed on describing the threat or potential threat to public health and the environment.
- c. History of Response Actions. Prepare a summary of any response actions conducted by Federal, State, local, or private parties. This summary shall include field inspections, sampling surveys, cleanup activities, and other technical investigations.

TASK 2 -- INVESTIGATION SUPPORT

US DOE shall conduct preliminary work necessary to scope and conduct the site investigations and cleanup alternatives study.

- a. Safety Plan. A safety plan shall be developed to protect the health and safety of personnel involved in the site investigations and the surrounding community. The plan will be consistent with:

EPA Order 1440.3 -- Respiratory Protection

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

EPA Occupational Health and Safety Manual

EPA Interim Standard Operating Safety Procedures and other EPA guidance as developed by EPA

Site Conditions

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

- b. Define Boundary Conditions. Establish site boundary conditions to limit the area of facility investigations. The boundary conditions shall be set so that subsequent investigations will cover the contaminated media in sufficient detail to support

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following activities, e.g. cleanup alternatives study. Boundary conditions will also be used to identify boundaries for site access control and site security.

- c. Site Map. Prepare a site map showing all wetlands, surface water features, tanks, buildings, utilities, paved areas, easements, right-of-ways, and other features. The map shall be of sufficient detail and accuracy to locate all current or future work performed at the site.
- d. Community Relations Plan. Prepare a plan, based on discussions with responsible local and State officials and interested community leaders, for the dissemination of information to the public regarding investigation and cleanup alternatives study activities and results. Opportunities for comment and input by citizen, community and other groups must also be identified and incorporated into the plan.
- e. Pre-Investigation Evaluation. Prior to starting any facility investigations, US DOE shall assess the site conditions to identify potential cleanup technologies applicable to the site and associated data needed to evaluate alternatives based on these technologies for the cleanup alternative studies. A report shall be prepared for State review identifying broad categories of cleanup technologies that may be applicable to the site and data needs.

TASK 3 -- SITE INVESTIGATIONS -

US DOE shall conduct investigations necessary to characterize the site and its actual or potential hazards to public health and the environment, both on-site and off-site. The investigations shall produce sufficient data to assess cleanup alternatives and support the detailed evaluation of alternatives during the cleanup alternatives study.

- a. US DOE shall prepare and submit for State review and concurrence a detailed work plan outlining data needs for characterizing the site and for support of the cleanup alternative studies. The work plan shall include an outline of proposed investigation activities, a time schedule, personnel and equipment requirements. The work plan shall also include a sampling plan indicating rationales for sampling activities, location, quantity; and frequency of sampling, sampling and analysis methods, constituents for analysis, and quality assurance procedures. In addition to these general sampling plan elements, other requirements will be identified in the following subtasks as they apply.

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All sample analyses will be conducted at laboratories following EPA protocols while following strict chain-of-custody procedures.

1. Chain-of-Custody. Any field sampling collection and analysis conducted shall be documented in accordance with chain-of-custody procedures as employed by EPA. US DOE shall prepare and submit as part of the work plan a description of the chain-of-custody procedures to be used.
2. Quality Assurance/Quality Control (QA/QC). US DOE shall prepare and submit as part of the work plan a Quality Assurance Project Plan for the sampling, analysis, and data handling aspects of the facility investigation. The plan shall address the following points:
 - a) QA Objectives for Measurement Data, in terms of precision, accuracy, completeness, representativeness, and comparability.
 - b) Sampling Procedures
 - c) Sample Custody
 - d) Calibration Procedures, References, and Frequency
 - e) Internal QC Checks and Frequency
 - f) QA Performance Audits, System Audits, and Frequency
 - g) QA Reports to Management
 - h) Preventive Maintenance Procedures and Schedule
 - i) Specific procedures to be used to routinely assess data precision, representativeness, comparability, accuracy, and completeness of specific measurement parameters involved.
 - j) Corrective Action
- b. Waste Characterization. Develop and conduct a complete sampling and analysis program to supplement existing data and to physically and chemically characterize all potentially hazardous wastes, pollutants, industrial wastes or other wastes at the site. This activity should include identification of the location and probable quantities of subsurface wastes using appropriate methods.

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By: Mary Corin Date: 11-22-88

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The sampling plan developed for this subtask shall address incompatibility testing of wastes (tank and drum opening procedures if necessary). Wastes shall be analyzed and grouped in compatibility classes to support any subsequent conclusions about segregating wastes on-site and developing cleanup alternatives.

As part of this subtask, all containers of hazardous wastes, pollutants, industrial wastes or other wastes such as drums, tanks, piles, abandoned vehicles, etc. must be located on the site map. The physical condition size, type and contents of the containers shall be described.

- c. Hydrogeologic Investigation. Develop and conduct a program to determine the present and potential extent of groundwater contamination. A sampling program shall be developed to determine the location of water bearing strata and other subsurface geologic features, groundwater flow direction, vertical and horizontal distribution of contaminants, background levels of contamination, and the ability of the facility and local geology to control or contain the contaminants. Long-term disposition of contaminants will be evaluated based on mobility of the contaminants, attenuation capacity of local soils and other geologic features, regional flow direction and quantity, effects of local pumping, and the presence of discharge/recharge areas. Computer models of flow and contaminant transport may be used to demonstrate conclusions reached as a result of this investigation and predict effects of future cleanup actions.

The sampling plan developed for this subtask shall define the type of well construction and any geophysical or modeling techniques proposed.

- d. Soils Investigation. Develop and conduct a program to determine the nature and vertical and horizontal extent of contamination of surface and subsurface soils. Cores from groundwater monitoring wells may serve as soils samples.
- e. Surface Water and Sediments Investigation. Develop and conduct a program to determine the nature and extent of contamination of surface water and sediments. This program shall also evaluate the impacts of the contaminants on the floral and faunal communities in the surface water, sediments, and any adjacent wetlands.
- f. Air Investigation. Develop and conduct a program to determine the nature and extent of on-site and off-site contamination. This program shall also address the tendency of the substance identified through Waste

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Characterization to enter and disperse in the atmosphere, considering seasonal weather conditions and wind patterns.

The above tasks should be summarized in a single sampling plan which is to be included in the detailed work plan. (Other categories of investigations may be needed for specialized problems. These could include additional biological or radiological investigations.)

TASK 4 -- SITE INVESTIGATION ANALYSIS

US DOE shall prepare a thorough analysis and summary of all site investigations and their results. The objective of this task will be to ensure that the investigation data are sufficient in quality and quantity to adequately describe the nature and extent of contamination and to support the cleanup alternatives study.

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

- a. Data Analysis. Analyze all site investigation data and develop a summary of the type and extent of contamination at the site. This analysis shall include all significant pathways of contamination and an exposure assessment. The exposure assessment shall describe any actual or potential threats to public health, welfare, and the environment.
- b. Application of Potential Cleanup Technologies. Analyze the results of the site investigations in relation to the potential cleanup technologies applicable to the site. This analysis will determine the adequacy of data quality and quantity to support the cleanup alternatives study and will identify any additional data needs.

TASK 5 -- LABORATORY STUDIES AND BENCH-SCALE STUDIES (As Required)

US DOE shall conduct any necessary laboratory and bench scale treatability studies required to evaluate the applicability of cleanup technologies, e.g., leachate treatment, groundwater treatment, compatibility of waste-leachate with liners, cover, or other materials proposed for use in the remedy. The scope of this Task will depend on the results of Task 4. US DOE will submit a separate work plan for any proposed laboratory studies for State concurrence.

TASK 6 -- FINAL REPORT

US DOE shall prepare a final report covering the facility investigations and submit copies to the Ohio EPA. The report shall include the results of Tasks 1 through 4.

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TASK 7 -- ADDITIONAL REQUIREMENTS

a. Reporting Requirements. Monthly Technical Progress Reports are required of US DOE.

Content. For each on-going work assignment, US DOE shall submit progress reports with the following elements:

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

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

CLEANUP ALTERNATIVES STUDY

PURPOSE

The purpose of the cleanup alternatives study is to develop and evaluate cleanup alternatives for the facility.

US DOE shall furnish the necessary personnel, materials, and services required to prepare the cleanup alternatives study.

SCOPE

The cleanup alternatives study consists of ten tasks.

Task 8 -- Description of Current Situation

Task 9 -- Work Plan

Task 10 -- Development of Alternatives

Task 11 -- Initial Screening of Alternatives

Task 12 -- Detailed Analysis of Alternatives

Task 13 -- Evaluation and Selection of Preferred Alternative

Task 14 -- Final Report

Task 15 -- Additional Requirements

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TASK 8 -- DESCRIPTION OF CURRENT SITUATION

Any changes to the description of the current situation from Task 1 shall be presented. Justification for changes must be based on results of the facility investigation.

A site-specific statement of purpose for the response, based on the results of the facility investigation, should be presented. The statement of purpose should identify the actual or potential exposure pathways that should be addressed by cleanup alternatives. This statement of purpose shall be submitted to Ohio EPA for concurrence before continuing the remaining tasks of the Cleanup Alternatives Study.

TASK 9 -- WORK PLAN

A work plan that includes a detailed technical approach, personnel requirements, and schedules shall be submitted to Ohio EPA for review and concurrence for the proposed cleanup alternatives study.

TASK 10 -- DEVELOPMENT OF ALTERNATIVES

~~Based on the results of the facility investigation, US DOE shall develop a limited number of alternatives for source control or off-site cleanup actions, or both, on the basis of objectives established for the response.~~

a. Establishment of Cleanup Objectives

Establish site-specific objectives for the response based on public health and environmental concerns, information gathered during the facility investigation, and the requirements of any applicable Federal or State statutes. Preliminary cleanup objectives shall be developed in consultation with and for concurrence by Ohio EPA.

b. Identification of Cleanup Technologies

Based on the cleanup objectives established above and the statement of purpose identified in Task 8, identify appropriate cleanup technologies as a basis for the development of cleanup alternatives. These technologies shall be identified on a media-specific basis, although consideration should be given to the interrelationship of the media. The technologies should be able to meet the response objectives. The list of potential cleanup technologies developed in Task 2e and Task 4b shall be considered a master list of applicable technologies that may prove extremely difficult to implement, will require unreasonable time periods to implement, or will rely on insufficiently developed technology.

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c. Identification of Cleanup Alternatives

Develop alternatives to incorporate cleanup technologies, cleanup objectives, and other appropriate considerations into a comprehensive, site-specific approach.

There may be a no-action alternative, or there may be overlap among the alternatives developed. All alternatives must meet the requirements of all applicable State and Federal environmental laws including permitting requirements. Alternatives shall be developed in close consultation with Ohio EPA.

TASK 11 -- INITIAL SCREENING OF ALTERNATIVES

The alternatives developed in Task 10 shall be screened by US DOE to eliminate alternatives, prior to detailed analysis, that are clearly not feasible or appropriate. All decisions made as a part of this screening of alternatives should be documented.

The following consideration shall be used as a basis for the initial screening:

- 1) Effects of the Alternative. Only those alternatives that effectively contribute to protection of public health, welfare, and the environment will be considered further. Any alternatives that inherently present significant adverse effects will be excluded from further consideration.
- 2) Acceptable Engineering Practices. Alternatives that may prove extremely difficult to implement, will not achieve the cleanup objectives in a reasonable time period, or that rely on unproven technologies will be excluded from further consideration.

TASK 12 -- DETAILED ANALYSIS OF ALTERNATIVES

US DOE shall prepare a detailed analysis of the alternatives that pass through the initial screening in Task 11.

This detailed analysis shall consist of the following elements:

a. Detailed Description

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

- 1) Description of appropriate treatment and disposal technologies.

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- 2) Special engineering considerations required to implement the alternative, e.g., pilot treatment facility or additional studies needed to proceed with final cleanup design.
- 3) Operation, maintenance, and monitoring requirements of the completed cleanup.
- 4) Off-site disposal needs and transportation plans.
- 5) Temporary storage requirements.
- 6) Safety requirements for cleanup implementation, including both on-site and off-site health and safety considerations.
- 7) An analysis of how the alternative could be phased into individual operations and a discussion of how these operations could best be implemented, individually or in groups, to produce significant environmental improvement.
- 8) A review of any off-site treatment or disposal facilities to ensure compliance with applicable RCRA, TSCA and State requirements, both current and proposed.
- 9) An analysis of the projected performance and expected results of the alternative with emphasis on potential for further future release of hazardous wastes, pollutants, industrial wastes or other wastes.

b. Environmental Analysis

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

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

c. Cost Analysis

The present worth cost of implementing each cleanup alternative (and each phase of the alternative) as well as the annual operating and maintenance cost shall be presented. The cost shall be provided as a total cost and on an annual cost basis.

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By: M. L. Caver Date 11-22-88

TASK 13 -- EVALUATION AND SELECTION OF PREFERRED ALTERNATIVE

Ohio EPA shall review the results of the detailed analysis of alternatives prepared under Task 12 and select the preferred alternative.

The following considerations shall be used as the basis for selecting the cost-effective alternative:

1. Reliability. The alternatives that minimize or eliminate the potential for release of wastes into the environment will be considered more reliable than other alternatives.
2. Implementability. The alternatives most easily implemented shall be favored.
3. Effects of the Alternative. The alternatives posing the greatest improvement to (and least negative impact on) public health, welfare, and the environment will be favored.
4. Safety Requirements. The alternatives with the lowest adverse safety impacts will be favored.

TASK 14 -- FINAL REPORT

A final report shall be prepared for submission to Ohio EPA, including the results of Task 8 through 13. Copies of the report shall be submitted to Ohio EPA.

TASK 15 -- ADDITIONAL REQUIREMENTS

Monthly Technical Progress Reports are required of US DOE. These documents are described in Task 7 of the facility investigation scope of work.

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By: Mary Gavin Date 11-22-88

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Deliverables:

Facility Investigation

1. Task 1a - Site Background
b - Nature and Extent of Problem
c - History of Response Actions
2. Task 2a - Safety Plan
c - Site Map
d - Community Relations Plan
e - Pre-investigation Evaluation
3. Task 3a - Work Plan
4. Task 4 - Site Investigation Analysis
5. Task 6 - Final Facility Investigation Report
6. Task 7 - Monthly Technical Progress Reports

Ohio EPA shall review and concur with Items 2 and 3 before field activities begin.

Cleanup Alternatives Study

7. Task 5 - Work Plan for Laboratory and Bench Scale Studies (optional)
8. Task 8 - Statement of Purpose
9. Task 9 - Work Plan for Cleanup Alternatives Study
10. Task 10a - Cleanup Response Objectives
b - Identified Cleanup Alternatives
11. Task 12 - Detailed Analysis of Alternatives Including Decisions Documents
12. Task 14 - Final Cleanup Alternatives Study Report
13. Task 15 - Monthly Technical Progress Reports

Ohio EPA shall review and concur with Items 8 and 9 before work in the cleanup alternatives study begins.

Schedule for Facility Investigation (FI)
and Cleanup Alternatives Study (CAS)

TASK

Submission of General Workplan for Facility Investigation

Quadrant 1: South and Southwest Regions*

- (a) Submission of Quadrant I FI Workplan
- (b) Submission of Quadrant I FI Report
- (c) Submission of Quadrant I CAS Workplan
- (d) Submission of Quadrant CAS Report

Quadrant 2: East Region*

- (a) Submission of Quadrant II FI Workplan
- (b) Submission of Quadrant II FI Report
- (c) Submission of Quadrant II CAS Workplan
- (d) Submission of Quadrant CAS Report

Quadrant 3: Northwest and West Regions*

- (a) Submission of Quadrant III FI Workplan
- (b) Submission of Quadrant III FI Report
- (c) Submission of Quadrant III CAS Workplan
- (d) Submission of Quadrant CAS Report

Quadrant 4: North and Northeast Regions*

- (a) Submission of Quadrant IV FI Workplan
- (b) Submission of Quadrant IV FI Report
- (c) Submission of Quadrant IV CAS Workplan
- (d) Submission of Quadrant CAS Report

*As marked on attached map.

EXHIBIT B

By: Mary Carr Date: 11-20-88
and document as filed in the records of the Ohio
Environmental Protection Agency.

DEADLINE

15 Days From Effective Date of Orders

Quadrant 1

- (a) 1 month after approval of General Workplan, or 2/1/89 whichever is later
- (b) 12 months from approval of Quadrant I RI Workplan
- (c) 3 months from submission of Quadrant I RI Report
- (d) 9 months from approval of Quadrant I CAS Workplan

Quadrant 2

- (a) 12 months from effective date of Orders
- (b) 12 months from approval of Quadrant II RI Workplan
- (c) 3 months from submission of Quadrant II RI Report
- (d) 6 months from approval of Quadrant II CAS Workplan

Quadrant 3

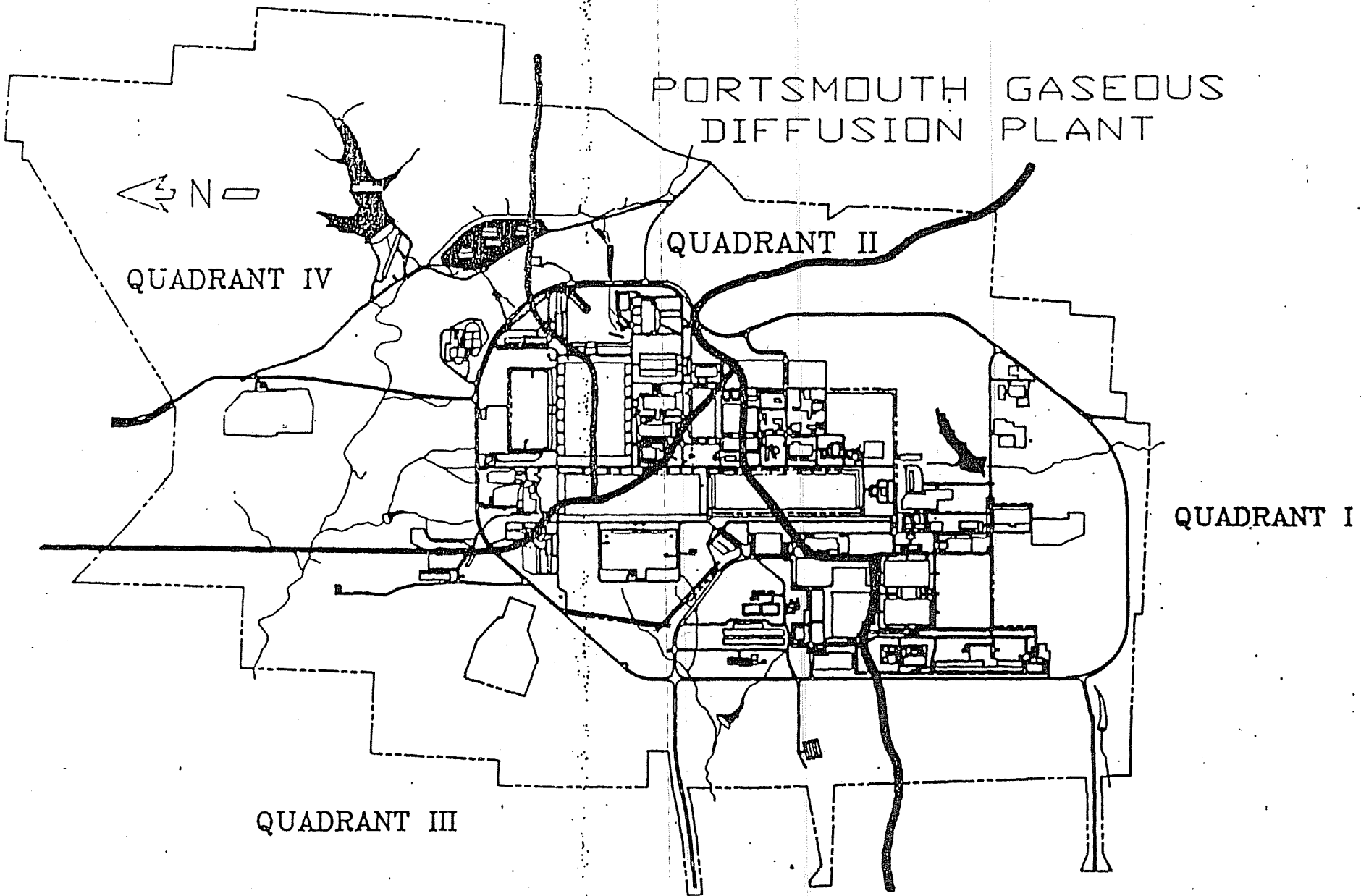
- (a) 18 months from effective date of Order
- (b) 10 months from approval of Quadrant III RI Workplan
- (c) 3 months from submission of Quadrant III RI Report
- (d) 5 months from approval of Quadrant III CAS Workplan

Quadrant 4

- (a) 23 months from effective date of Order
- (b) 9 months from approval of Quadrant IV RI Workplan
- (c) 3 months from submission of Quadrant IV RI Report
- (d) 3 months from approval of Quadrant IV CAS Workplan

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Quadrant Boundaries for PORTS RCRA Facility Investigations (RFI)