

**1997
TSCA
Modification**

Modification to the February 20, 1992,
Toxic Substances Control Act (TSCA) Compliance Agreement
between the U. S. Environmental Protection Agency (EPA)
and the U. S. Department of Energy (DOE)

- 1. Attachment I, section 2(E), of the Portsmouth and Paducah Gaseous Diffusion Plants Remedial Implementation Plan, entitled "Gasket Removal Program and Ventilation Duct Management," is revised as follows:

Initiation Date: Decommissioning date

Work Completion Date: Within ten years of work initiation date

- 2. Attachment I, section 2(T), of the Portsmouth and Paducah Gaseous Diffusion Plants Remedial Implementation Plan, entitled, "Hydraulic Systems at the Paducah GDP," is revised as follows:

Work Initiation Date: Decommissioning date

Work Completion Date: Within ten years of work initiation date

- 3. The provisions of attachment II, the Oak Ridge Gaseous Diffusion Plant Remedial Implementation Plan, are no longer in effect and have been superseded by the Oak Ridge TSCA agreement. Any other references to the Oak Ridge plant or the K-25 facility in the agreement are no longer relevant.

- 4. The below signatories have reviewed and approved the modifications and represent the responsible organizations within EPA and DOE for this agreement.

THE PARTIES SO AGREE:

Craig Hooks
Craig Hooks
Acting Director
Federal Facilities Enforcement Office
U. S. Environmental Protection Agency

9/24/97
Date

Terry R. Lash
Terry R. Lash, Director
Office of Nuclear Energy,
Science and Technology
Department of Energy

7/17/97
Date

Alvin L. Alm
Alvin L. Alm
Assistant Secretary for
Environmental Management
Department of Energy

7/9/97
Date

COMPLIANCE AGREEMENT
BETWEEN
THE UNITED STATES DEPARTMENT OF ENERGY
AND
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

TOXIC SUBSTANCES CONTROL ACT

IN RE: DEPARTMENT OF ENERGY FACILITIES:
PADUCAH, KENTUCKY
PORTSMOUTH, OHIO
OAK RIDGE, TENNESSEE

I.

PARTIES

1. The ~~United States~~ Environmental Protection Agency ("EPA") and the ~~United States~~ Department of Energy ("DOE") are parties to this Compliance Agreement and Attachments I, II, and III herein ("Compliance Agreement" or "Agreement").

II.

JURISDICTION

2. This Agreement is entered into under the authority of the Toxic Substances Control Act ("TSCA") 15 U.S.C. §2601 et seq., Section 3004(j) of RCRA, 42 U.S.C. 6924, and Executive Order 12088, 43 F.R. 47707 (October 13, 1978).

III.

PURPOSE

establishes responsibilities and commitments.
3. EPA and DOE are entering into this Agreement to establish responsibilities and commitments for conducting actions required and/or authorized by TSCA and the PCB (polychlorinated biphenyl) Regulations at 40 C.F.R. Part 761, et seq., and applicable portions of E.O. 12088.

IV.

SCOPE

4. This Agreement establishes a plan which is intended to bring DOE's Uranium Enrichment Plants (and support facilities) located in Portsmouth, Ohio and Paducah, Kentucky and DOE's former Uranium Enrichment Plant (and support facilities) located

in Oak Ridge, Tennessee ("the facilities") into full compliance with TSCA and the PCB Regulations found at 40 C.F.R. Part 761. *plan on TSCA and RCRA*

5. This Agreement is not and shall not be construed to be a vehicle to relieve the DOE of any legal or regulatory obligations including obligations under TSCA or RCRA except as expressly provided for herein. *superce unless expressly provided for in the document*

V.

FINDINGS OF FACT

6. The following constitutes the Findings of Fact that EPA considers the basis for this Agreement. Nothing in this Agreement shall be considered an admission, acceptance, or concession by any Party, except that DOE agrees not to challenge the following Findings of Fact contained in this section in any action to enforce this Agreement.

7. Executive Order 12088 requires Federal agencies to comply with TSCA. DOE is a "person" within the meaning of 40 C.F.R. §761.3. *EO 12088 ties DOE as a "person" in TSCA.*

8. DOE owns three uranium enrichment facilities. The facilities are located in Portsmouth, Ohio; Paducah, Kentucky; and Oak Ridge, Tennessee. When constructed in the 1940s and 1950s, the ventilation duct seams at the facilities were sealed using gaskets impregnated with PCBs in excess of 500 ppm. PCBs in excess of 50 ppm have also been detected in some of the lubrication oils used in motor and compressor bearings. Lubrication oils are drawn into the motor exhaust system, *ventilation gaskets are impregnated w/ PCBs > 500 ppm lube oils > 50 ppm*

saturate the gasket material and leach PCBs from the gaskets on building floors.

9. DOE provided EPA with information that twenty-four buildings (building numbers C-310, C-315, C-331, C-333, C-335, C-337, C-100, C-101, C-102, C-200, C-300, C-340, A, B and C, C-400, C-402, C-410, C-411, C-420, C-531-1, C-532, C-533-1, C-600, C-710, C-720, and C-750), at the Paducah, Kentucky, facility have ventilation duct gaskets impregnated with concentrations of PCBs which exceed 500 ppm. There are approximately 51,200 PCB impregnated gaskets located in these buildings. Six of these twenty-four buildings (building numbers C-310, C-315, C-331, C-333, C-335, and C-337), have PCB contaminated oil leaching through these gaskets. There are approximately 26,500 gaskets located in these buildings that are actively leaking, have shown evidence of leaking in the past, or may leak in the near future. DOE also provided EPA with information that PCB contaminated electrical voltage potential devices are in place at the Paducah facility.

★ 10. DOE provided EPA with information that there are PORTS
seventeen buildings at the Portsmouth, Ohio facility, (building 17 bldg
w/ gask
numbers X-326, X-330, X-333, X-100, X-102, X-105, X-300, X-342,
X-344, X-530B, X-533B, X-700, X-705, X-720, X-750, X-760, and X-770), which have ventilation duct gaskets impregnated with concentrations of PCBs which exceed 500 ppm. At least three of these buildings (building numbers X-326, X-330 and X-333), have PCB contaminated oil leaching through these gaskets. There are

approximately 48,000 gaskets in these three buildings. There are approximately 23,000 gaskets in these three buildings that are actively leaking, have shown evidence of leaking in the past, or may leak in the near future. DOE also informed EPA that PCB contaminated process lubrication oil systems are also used at the Portsmouth facility. DOE notified EPA that there are a minimum of three buildings (building numbers K-29, K-31, and K-33), at the Oak Ridge, Tennessee, facility which have ventilation duct gaskets impregnated with PCBs at concentrations in excess of 500 ppm and have PCB contaminated oil leaching through these gaskets. There are approximately 11,700 gaskets in these three buildings that are actively leaking, have shown evidence of leaking in the past, or may leak in the near future. These leaks have also caused PCB contamination of electrical cables, cable trays, and associated equipment at all three of these facilities.

Oak R
- 3 bld
w/ tube
oil

11. 40 C.F.R. §761.20 states, in pertinent part, that "[n]o person may use any PCB, or any PCB Item regardless of concentration in any manner other than in a totally enclosed manner within the United States unless authorized under §761.30." Using PCBs in ventilation duct gaskets, electrical voltage potential devices, and process lubrication oil systems are not authorized uses under 40 C.F.R. §761.30. DOE's use of PCBs in ventilation duct gaskets, electrical voltage potential devices, and process lubrication systems represent violations of 40 C.F.R. §761.20, 15 U.S.C. 2614.

PCBs
gaskets
an un
action
use

leaking gaskets
is unauthorized
disposal.

12

"Disposal" is defined by 40 C.F.R. §761.3 to include "spills, leaks, and other uncontrolled discharges of PCBs". Any disposal of PCBs which is not authorized by 40 C.F.R. §761.60 is an unauthorized disposal. The leaking gaskets at the Respondent's Paducah, Portsmouth, and Oak Ridge facilities, and the leaking electrical voltage potential devices at the Paducah facility, constitute unauthorized disposal of PCBs under 40 C.F.R. §761.60., 15 U.S.C. §2614.

13. DOE provided EPA with information that three storage areas (in building numbers C-746B, C-746R, and C-337), at the Paducah, Kentucky, facility contain or contained PCB Containers and PCB Articles in excess of 50 ppm PCBs for over one year. In addition, three PCB contaminated hydraulic systems at the Paducah facility are located in the C-340 building in unapproved storage areas.

PORTS

14

DOE also provided EPA with information that two storage areas in building number X-333, the West End and the Center Area, of the Portsmouth, Ohio facility contain or contained PCB Containers and PCB Articles in excess of 50 ppm PCBs for over one year. At this facility, DOE also temporarily stores PCB liquid in 18"-48" tall, 5-inch diameter polyethylene bottles with screw on caps.

15. DOE provided EPA with information that three storage areas (building numbers K-306-1, K-726 and K-711), at the Oak Ridge, Tennessee facility contain or contained PCB Containers and PCB Articles in excess of 50 ppm PCBs for over one year. In

addition, PCB contaminated and PCB transformers no longer in use are located in unapproved storage areas at Oak Ridge.

Unauthorized Containers. 15. Respondent's storage of PCBs in PCB Containers which do not conform to DOT specifications at its Portsmouth facility, storage of PCBs, PCB hydraulic systems, PCB contaminated transformers and PCB transformers in inadequate storage areas at the Paducah, Portsmouth, and Oak Ridge facilities, as well as Respondent's storage of PCB Containers and PCB Articles with concentrations in excess of 50 ppm for over one year at Paducah, Portsmouth, and Oak Ridge are not in compliance with 40 C.F.R. §§761.65 and 761.64.

VI.

APPLICABILITY

17. No change in ownership of the facilities will in any way alter DOE's responsibility under this Agreement, unless otherwise provided by law.

Contractor or Subcontractor tie to this agreement. 18. DOE and EPA shall provide a copy of this Agreement to all contractors, subcontractors, laboratories and consultants retained to conduct or monitor any portion of the work to be performed pursuant to this Agreement within seven (7) days of the effective date of this Agreement or date of such retention.

19. DOE agrees to give notice of this Agreement to any subsequent owner and/or operator before the transfer of ownership or the obligation of a new contractor/operator and to simultaneously notify EPA of any such change or transfer.

VII.

COVERED MATTERS

20. This Agreement addresses the requirements of TSCA and the PCB Regulations at 40 C.F.R. Part 761. applicable to the unauthorized use of PCBs in process lubrication oil, ventilation duct gaskets, and potential devices and the unauthorized disposal and storage of PCBs and PCB Items at the facilities, as set forth herein.

mixed wastes.

21. This Agreement also addresses the storage and disposal of radioactive contaminated wastes generated from activities required by this Agreement which contain hazardous waste that are subject to the land disposal restrictions and associated storage limitations of the Hazardous and Solid Waste Amendments of 1984.

22. The parties acknowledge that this Agreement does not affect the rights of the EPA to address any violations which exist or may exist at the facilities, which are not specifically covered by this Agreement.

23. Nothing in this Agreement shall be considered an admission by any party with respect to any unrelated claims by a party or with respect to any claims or actions by persons not a party to this Agreement, except that DOE agrees not to challenge the Findings of Fact contained herein in an action to enforce the terms of this Agreement.

VIII.

REQUIREMENTS AND DELIVERABLES

24. DOE shall conduct all activities as set forth in the Attachments to this Agreement. All terms and conditions set forth in the Attachments to this Agreement constitute enforceable requirements of this Agreement.

DOE must
obtain a permit,
assume have
one.

25. DOE is required to secure EPA approval of a permit pursuant to Attachment I(2)(B). Additionally, EPA shall review and may comment upon all deliverables generated by DOE pursuant to the terms of this Agreement. In addition to EPA review, comment, or approval of the permit pursuant to Attachment I(2)(B), EPA may take a formal position on any matter related to the implementation of this Agreement by issuing a Written Notice of Position to DOE. DOE shall either conform with EPA's Written Notice of Position or subject EPA's Written Notice of Position to dispute resolution pursuant to Section XI of this Agreement.

Disposal
requirements
Storage
requirements

26. Except as otherwise provided for in this Agreement, DOE shall strictly follow the disposal procedures set forth in 40 C.F.R. §761.60 and the storage procedures set forth in 40 C.F.R. §761.65.

27. All documentation required to be submitted to EPA under the terms of this Compliance Agreement shall be subject to EPA's approval and shall be submitted to the EPA Project Contact as follows:

Director, Compliance Division
Office of Compliance Monitoring
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Attn: DOE Compliance Agreement.

IX.

FUNDING

Five Year
Plan.

28. It is the expectation of the Parties that all obligations established pursuant to this Agreement will be fully funded. The DOE will take all necessary steps and use its best efforts to obtain timely funding to meet DOE's obligations under this Compliance Agreement, including budget requests supported by DOE's Environmental Restoration and Waste Management Five Year Plan (the "Five Year Plan"). However, no provision herein shall be interpreted to require the obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341, and DOE's performance of the commitments under this Compliance Agreement is subject to the availability of appropriated funds for such purposes. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligation of such funds shall be appropriately adjusted.

29. DOE prepares a Five-Year Plan to identify, integrate, and set priorities for DOE's compliance and cleanup activities at all DOE nuclear facilities and sites. The Five-Year Plan will assist DOE in addressing environmental requirements at its

... sites and in developing and supporting its budget requests. DOE updates the Five-Year Plan on an annual basis.

30. The terms of the Five-Year Plan shall be consistent

Five Year Plan
must incorporate
all requirements
and schedule
herein

with the provisions of this Agreement, including all requirements and schedules contained herein; it is the intent of the parties that DOE's Five-Year plan be drafted and updated in a manner that ensures that the provisions of this Agreement are incorporated into the DOE planning and budget process. Nothing in the Five-Year Plan shall be construed to affect the provisions of this Agreement.

31. DOE is developing a national priority system for inclusion in the Five-Year Plan. DOE's application of its national priority system may indicate to DOE that modification of the milestones established by this Agreement is appropriate.

Subsequent
agreements
b/n DOE
and EPA
must be
incorporated
into the
Five Year Plan.

Where both parties agree to the modification, the procedures of Section XIV shall be used. Any modification of this Agreement will be incorporated, as appropriate, in the annual update to DOE's Five-Year Plan. Where the parties are unable to reach agreement on a requested modification, DOE may invoke the dispute resolution provisions set forth in Section XI. Pending resolution of any such dispute, the provisions and deadlines in effect pursuant to this Agreement shall remain in effect and enforceable in accordance with the terms of this Agreement.

X.

FORCE MAJEURE

32. DOE agrees to implement this Agreement in accordance with the deadlines set forth in the Attachments to this Agreement. DOE also agrees to adopt all reasonable measures to avoid or minimize any delays in the implementation of this Agreement. However, in the event of an unforeseeable or unexpected event or circumstance which is beyond the control of DOE, which could not be overcome by due diligence, and which necessitates revision of a deadline contained in this Agreement (hereinafter referred to as a "force majeure"), the parties agree to review and modify the deadline, as necessary. Force majeure events may include, but are not limited to, unforeseen and unavoidable delays caused by labor strikes, adverse weather conditions, natural disasters, unavailability of funds due solely to the restrictions of the Anti-Deficiency Act and only if DOE has demonstrated that it took all necessary steps and used its best efforts to obtain timely funding as set forth in Section IX of this Agreement, delays caused by compliance with applicable environmental statutes or regulations or other circumstances beyond the control of DOE.

deadlines may be modified due to Force Majeure.

33. If any event occurs which DOE believes will or may cause a force majeure delay in achieving compliance with any deadline set forth in this Agreement, DOE shall notify EPA in writing at least seven (7) calendar days prior to the anticipated delay. That notification shall state the precise cause of the

DOE must notify EPA in writing in the event of a FM.

... time required for DOE to take appropriate measures to minimize the delay, and include a description of those appropriate measures.

34. If EPA finds that DOE has complied with the notice requirements of the preceding paragraph, and if EPA determines that the delay or anticipated delay has been or will be caused by a force majeure event, the EPA shall review and modify the associated deadline(s), as necessary, to conform with the delay. Delay in any one requirement shall not automatically justify or excuse delay in the attainment of other requirements.

EPA will review the notification. If EPA finds a FM, then deadlines may be modified; if EPA finds no FM, the deadlines remain.

35. If EPA determines that the delay or anticipated delay has neither been nor will be caused by a force majeure event the existing deadline(s) shall remain in force. EPA shall notify DOE of its determination in writing.

36. In the event that DOE disagrees with the determination made by the EPA pursuant to the preceding paragraphs, DOE may use Section XI (Dispute Resolution) of this Agreement to resolve such dispute. DOE shall have the burden of proving that any delays are caused by a force majeure event.

XI.

DISPUTE RESOLUTION

37. If a dispute arises under this Agreement the procedures of this Section shall control. During the pendency of any dispute, DOE agrees that it shall continue to implement those portions of this Agreement which are not affected by the dispute and/or which can be reasonably implemented pending final

resolution of the issue(s) in dispute. If the EPA determines that all or part of the work affected by the dispute should stop pending resolution of the dispute, DOE shall discontinue those portions of work specified in writing by EPA. If DOE believes that the work stoppage is inappropriate or may have potential significant adverse impacts, DOE may contact the Director, Compliance Division, Office of Compliance Monitoring (Office of Pesticides and Toxic Substances) to discuss the work stoppage. Following this meeting and after further consideration of the issues, the Director, Compliance Division, Office of Compliance Monitoring (Office of Pesticides and Toxic Substances) will issue, in writing, a final decision with respect to the work stoppage. This final written decision may immediately be subjected to formal dispute resolution. Such dispute may be brought directly to the EPA Assistant Administrator for the Office of Pesticides and Toxic Substances and the DOE Director, Office of Environmental Restoration and Waste Management and/or Assistant Secretary for Nuclear Energy at the discretion of DOE.

38. EPA and DOE will each use Project Contacts as the point of contact for implementing this Compliance Agreement. The Project Contact for EPA is the Director, Compliance Division, Office of Compliance Monitoring (Office of Pesticides and Toxic Substances). DOE has designated two Project Contacts, one for the Portsmouth and Paducah facilities, and one for the Oak Ridge facility. DOE's Project Contact for the Portsmouth and Paducah facilities is the Director, Office of Operations and Facility

Reliability (Office of Uranium Enrichment). DOE's Project Contact for the Oak Ridge facility is Chief, the Decontamination and Decommissioning Branch, Eastern Area Programs, Office of Environmental Restoration. Either party may make a redesignation of its Project Contact upon written notification to the other party.

39. In the event of a dispute between the Parties regarding the implementation of this Agreement, the parties shall make reasonable efforts to informally resolve, at the Project Contact level, the dispute. If resolution of a dispute cannot be achieved at the Project Contact level, the following procedures shall be implemented to resolve a dispute:

A. Within thirty (30) calendar days of any action by EPA which leads to or generates a dispute, including EPA's issuance of a Written Notice of Position, DOE shall submit to EPA a written statement of dispute setting forth the nature of the dispute, DOE's position with respect to the dispute and the information DOE is relying upon to support its position. If DOE does not provide such written statement to EPA within this thirty (30) day period, DOE shall be deemed to have agreed with the action taken by EPA which led to or generated the dispute.

B. Upon receipt of the written statement of dispute, DOE and EPA shall engage in dispute resolution among the Project Contacts and/or their immediate supervisors. DOE and EPA shall have thirty (30) calendar days from the receipt by EPA of the written statement of dispute to resolve the dispute. During this

period the Project Contacts and/or their immediate supervisors shall meet as many times as necessary to discuss and attempt resolution of the dispute.

C. If agreement cannot be reached within this thirty (30) day period EPA or DOE may, within ten (10) calendar days of the conclusion of the thirty (30) day dispute resolution period, submit a written notice to the other Party escalating the dispute to EPA's Assistant Administrator for the Office of Pesticides and Toxic Substances and to DOE's Director, Office of Environmental Restoration and Waste Management and/or Assistant Secretary for Nuclear Energy for resolution, who shall have thirty (30) calendar days to resolve the dispute. If neither Party elevates the dispute within this ten (10) day escalation period, the DOE shall be deemed to have agreed with EPA's position with respect to the dispute.

D. If EPA's Assistant Administrator for the Office of Pesticides and Toxic Substances and DOE's Director, Office of Environmental Restoration and Waste Management and/or Assistant Secretary for Nuclear Energy are unable to resolve the dispute within the specified thirty (30) day period, EPA or DOE may, within ten (10) calendar days of the conclusion of the thirty (30) day dispute resolution period, submit a written notice of dispute to the Administrator of EPA for final resolution of the dispute in accordance with all applicable laws and procedures. In the event that the dispute is not escalated to the Administrator of EPA within the designated ten (10) day

escalation period, DOE shall be deemed to have agreed with EPA's position with respect to the dispute. The Administrator of EPA will review and resolve such dispute as expeditiously as possible. Upon request and prior to resolving the dispute, the Administrator shall meet and confer with the Secretary of DOE to discuss the issues under dispute. Upon resolution, the Administrator of EPA shall provide DOE with a written final decision setting forth the resolution of the dispute.

E. The pendency of any dispute under this Part shall not affect DOE's responsibility for timely performance of the work required by this Agreement, except that the time period for completion of work affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this Agreement which are not affected by the dispute shall continue and be completed in accordance with the applicable schedule.

F. Within thirty (30) calendar days of resolution of a dispute pursuant to the procedures specified in this Part, DOE shall incorporate the resolution and final determination into the appropriate plan, schedule, or procedures and proceed to implement this Agreement according to the amended plan, schedule, or procedures.

G. Resolution of a dispute pursuant to this Part of the Agreement constitutes a final resolution of any dispute arising under this Agreement. DOE shall abide by all terms and

conditions of any final resolution of dispute obtained pursuant to this Part of the this Agreement.

XII.

COVENANT NOT TO SUE AND RESERVATION OF RIGHTS

40. The facilities currently use, and will continue to use as set forth in this Agreement, ventilation duct gaskets which contain PCBs.

41. The facilities are currently storing, and will continue to store, PCB waste co-contaminated with radioactive materials. DOE is developing but does not currently have the means to dispose of these materials.

42. DOE has undertaken in this Agreement to address the PCB items, PCB gasket use, use of PCB potential devices, any releases of PCB contaminated oil from the ventilation duct gaskets, PCB process lubrication oil, and the storage of PCB waste co-contaminated with radioactive material.

Cov. not to Sue TSCA 43. Therefore, based on the facts and circumstances known to EPA as of the effective date of this Agreement, and set forth in this Agreement, ~~EPA~~ hereby agrees not to initiate any future civil administrative enforcement action against DOE or any of its contractors, or to refer a civil judicial enforcement action against DOE or its contractors under TSCA to the Department of Justice for covered matters defined in Section VII herein for so long as DOE is in compliance with the requirements of this Agreement.

Cbc + to
give
RCRA
mixed waste.

44. The Parties recognize that compliance with the terms of this Agreement will require DOE to generate radioactive mixed wastes containing a hazardous component subject to the land disposal restrictions of the Hazardous and Solid Waste Amendments of 1984 for which there may be no available treatment capacity. Therefore, as long as DOE is using best efforts to locate or develop treatment capacity, and as long as DOE is in full compliance with the terms of this Agreement, EPA agrees not to initiate a civil or administrative enforcement action against DOE and its contractor under RCRA or to refer a civil judicial enforcement action against DOE or its contractor to the Department of Justice for the storage of prohibited waste generated pursuant to the requirements of this Agreement.

provis
of the
covenant,

45. However, in the event that DOE is delayed in fulfilling its obligations as set forth in this Agreement as a result of insufficient availability of funding, and the Parties are unable to agree to an extension of schedules as provided for in Section IX (Funding), subject to Section X (Force Majeure) and Section XIV (Modifications), the covenant not to sue set forth above shall terminate.

potential
for the
actions

46. Further, nothing herein shall preclude any actions by EPA to enforce the terms of this Agreement, or to address or bring any available legal or equitable claims for: (1) any pre-existing, current, or future violations or conditions at the facility not specifically covered by this Agreement; (2) any emergency condition or imminent hazard which may exist or arise

at the facility; (3) any cleanup action pursuant to any available authority.

47. Further, EPA filed a Complaint, Docket Number 91-H-02, against Martin Marietta Energy Systems on October 3, 1990, for violations of TSCA at the three uranium enrichment facilities. The Parties agree that nothing contained in this Agreement shall affect that enforcement action in any way.

48. Further, except as otherwise specifically provided herein, the Parties reserve all other rights they may have under law with respect to any other person.

49. DOE reserves the right to request the making of a rule, pursuant to Section 6(e)(2)(B) of TSCA, to authorize the use of PCBs in ventilation duct gasket material.

XIII.

EXPIRATION

50. Within thirty (30) calendar days of DOE's final notification of completion of the final milestones required under this Agreement, DOE will provide EPA with a certification that all conditions and terms of this Agreement have been completed.

51. Within thirty (30) calendar days of receipt of DOE's certification, EPA will acknowledge in writing the receipt of the certification. EPA will respond to DOE's certification within one hundred and eighty (180) calendar days from the receipt of DOE's certification. EPA's response will indicate whether DOE has completed the requirements and milestones required by the Agreement to EPA's satisfaction and state the reasons for its

conclusions. Upon issuance of EPA's final determination that DOE has completed the requirements and milestones required by the Agreement to EPA's satisfaction, the requirements of this Agreement shall be considered satisfied and this Agreement shall be considered terminated.

52. In addition to EPA's general inspection authorities under TSCA, EPA specifically reserves the option of conducting a verifying inspection after DOE has provided EPA with the final notification of completion as provided in this Agreement. If EPA elects this option, the verifying inspection will be conducted within one hundred and twenty (120) calendar days of DOE's certification.

53. In the event that DOE fails to comply with the requirements set forth in this Agreement, subject to Section IX (Funding), Section X (Force Majeure), Section XI (Dispute Resolution), and Section XIV (Modifications), EPA may, within its discretion, terminate this Agreement by written notice to DOE.

XIV.

MODIFICATIONS

54. Modifications to this Agreement may be requested by EPA or DOE. Except as otherwise provided herein all such modifications shall be by mutual agreement of the signatories to this Agreement. All modifications requiring mutual agreement of EPA and DOE shall be in writing and shall be effective as of the date the last party affixed its signature.

Minor field
modifications
may be made

55. The Parties recognize that in the course of implementing this Agreement there may be a need for minor field modifications to the Attachments to this Agreement or to deliverables submitted pursuant to this Agreement. ~~The Parties~~ agree that any such minor field modifications may be made pursuant to a mutual agreement of the Parties as set forth in a written agreement between the Project Contacts. 90th TP38.

56. The Parties recognize that DOE has limited treatment and disposal capacity for PCBs and PCB items co-contaminated with other waste materials. In the event that it should become necessary to delay the treatment or disposal of materials covered by this Agreement to allow for the treatment or disposal of other waste materials generated by DOE which pose greater risks to human health or the environment, the Parties agree to modify this Agreement, as appropriate.

XV.

EFFECTIVE DATE

57. This Agreement shall become effective upon execution by authorized representatives of EPA and DOE. In the event that authorized representatives of EPA and DOE do not execute the Agreement on the same day, the Agreement shall become effective upon the date which the last party affixed its signature to the Agreement.

THE PARTIES SO AGREE:

Thomas L. McCall, Jr.
Deputy Assistant Administrator
for Federal Facilities Enforcement
Office of Enforcement
U.S. Environmental Protection Agency

2 / 20 / 92
Date

Michael F. Wood
Michael F. Wood, Director
Compliance Division
Office of Compliance Monitoring
Office of Pesticides and Toxic
Substances
U.S. Environmental Protection Agency

1 / 28 / 92
Date

William H. Young
William H. Young
Assistant Secretary for Nuclear
Energy
U.S. Department of Energy

12 / 31 / 91
Date

Leo P. Duffy
Leo P. Duffy
Director, Office of Environmental
Restoration and Waste Management
U.S. Department of Energy

12 / 31 / 91
Date

ATTACHMENT I

PORTSMOUTH AND PADUCAH GASEOUS DIFFUSION PLANTS
REMEDIAL IMPLEMENTATION PLAN

1. Interim Measures:

Completed.
(A) Troughing - All motor exhaust gasket flanges will be troughed to capture gasket drips. The purpose of this measure is to prevent further spills onto the floors of the buildings and does not relieve DOE from the obligation to comply with the measures set forth below which are designed to bring the facilities into full compliance with the PCB regulations.

Work Initiation Date: On-going

Work Completion Date: March 30, 1994

Documentation to be Provided to EPA:

- a. Notification of work completion
- b. Quarterly progress reports to be included in DOE's Annual Compliance Agreement Report¹ and subject to EPA inspection

Completed.
(B) On-Site Disposal Investigation - DOE is to provide EPA with a certification that all identified sites historically used for the disposal of PCB contaminated wastes are being or will be sampled and analyzed to determine the extent of contamination within the context of separate present or pending permits, Agreement(s) or Orders between DOE and EPA. These requirements in the permits, Agreement(s) or Orders will satisfy EPA's historical Spill Clean-up Policy.

Work Completion Date: Thirty days from this agreement becoming effective.

Documentation to be Provided to EPA:

- a. Certification that all PCB disposal sites at Paducah and Portsmouth are being investigated pursuant to separate permits, Agreements, or orders.

¹DOE shall submit to EPA an Annual Compliance Agreement Report pursuant to this Compliance Agreement by July 1, 1992, and yearly thereafter covering the previous calendar year until the expiration of this Compliance Agreement. The Annual Compliance Agreement Report will include summaries of the reporting requirements as set forth within this Agreement and the PCB Annual Document will be used as an additional reference.

b. Copies of permits, Agreements or Orders embodying requirements to investigate PCB disposal sites at Paducah and Portsmouth.

(X) Potential Devices - Electrical Voltage Potential Devices at the Paducah Gaseous Diffusion Plant may continue to be used prior to replacement so long as the following steps are taken: 1. Daily documented inspections will be performed to check for seepage of PCB contaminated oil to the external surfaces; 2. Immediate documented cleanup of external surfaces if PCB contaminated oil is found; 3. Containment such as sealing in clear plastic for those with recurring seepage, with daily changeout of the plastic and cleanup of the external surfaces; 4. Restricting access to potential devices showing seepage by the use of flagging and caution signs. Final compliance will be achieved by replacing all potential devices which are unauthorized for use.

Work Initiation Date: On-going

Work Completion Date: May 31, 1993

Documentation to be provided to EPA:

a. Notification of work completion

b. Copies of monthly summaries of the daily inspection and cleanup documentation will be included in DOE's Annual Compliance Agreement Report and subject to EPA inspection

REQUIREMENT (D) Air Sampling. - Consistent with DOE's monitoring at the facilities, PCB air sampling will be continued in process buildings with motor exhaust systems. At least 5 samples will be taken per process building per year. For each of these buildings, samples will be taken quarterly every calendar year, at least 30 days apart, with an additional set of samples taken sometime during the year. For each periodic (annual) air monitoring activity in a building, there are two kinds of sampling sites: best engineering judgement (BEJ) selected sites and randomly selected sites. The same BEJ sites may be selected for more than one monitoring period. The randomly selected sites shall be different from the BEJ sites and shall be newly selected for each periodic monitoring activity according to the attached guidance provided in the appended "Selection of Random Sampling Sites." It would be a rare coincidence for the same randomly selected location in the same building to be sampled in more than one periodic monitoring activity. DOE shall report quarterly to the EPA any PCB concentrations greater than 0.5 micrograms per cubic meter measured from any air monitoring sampler at any location. Upon receipt of any such measurement data, EPA will

contact DOE to address further monitoring requirements and any other required actions. Should EPA conclude that air sampling results produced pursuant to this Agreement so warrant, EPA and DOE shall meet and shall agree upon additional protective measures to be taken by DOE.

Work Initiation Date: On-going

Work Completion Date: One year after facility shutdown.

Documentation to be provided to EPA:

- a. Notification of work completion
- b. Air sampling results will be included in DOE's Annual Compliance Agreement Report

2. Compliance Measures:

~~COMPLETED~~
~~REQUIREMENT~~

(A) Process Lubrication Oil - All process lubrication storage systems associated with gaseous diffusion process shall be inventoried, sampled and the samples analyzed.

Work Completion Date: Completed

Documentation to be Provided to EPA:

- a. Notification of work completion
- b. Sample and Analysis Report - Includes results of sampling and analysis as well as inventory of all process lubrication storage systems associated with gaseous diffusion process. Inventory shall include location, concentration of PCBs (ppm) and total volume of process lubrication oil. This information will be included in DOE's Annual Compliance Agreement Report.

~~COMPLETED~~

(B) Process Lubrication Oil Removal - DOE shall provide evidence that the disposal of the PCB lubrication oil that is regulated for use will begin no later than 180 calendar days from the date of this agreement. There are only two ways this evidence shall be provided:

(1) If DOE proposes to employ a PCB disposal process which does not currently have an appropriate PCB disposal approval (according 40 C.F.R. §761.60) on the date this agreement is signed, the proposed company shall submit a complete (as determined by EPA) permit application to the EPA, within 60 calendar days of the date of this agreement. Upon receipt of a complete application the EPA shall issue a demonstration permit at a time mutually agreed upon between EPA and the proposed

disposal company. The demonstration test shall occur within 90 calendar days of the receipt of the complete application. The proposed disposal company shall complete a successful, as determined by EPA, demonstration test on time (within five calendar days of the beginning of the demonstration test) and submit a complete, as determined by EPA, demonstration test report including the relevant chemical analysis and other measurements, taken at the demonstration, within 50 calendar days of the completion date of the demonstration. Providing the information generated at the demonstration and the demonstration test report indicates that PCBs were disposed of in accordance the PCB regulatory requirements, EPA will issue a commercial operating permit within 60 days of receipt of the complete demonstration test report. Within 60 days of the effective date of the commercial operating permit, DOE shall provide EPA with a copy of the contract with this company to dispose of all of the lubricating oil within 240 calendar days of the effective date the permit. According to this option, the PCBs shall be disposed of no later than a total of 575 days from the date this agreement is signed. This time period may be extended by mutual, written agreement of the parties. Requests for extension are subject to the dispute resolution provisions of this Agreement.

(2) If DOE intends to employ a company having an appropriate PCB disposal approval (according to 40 C.F.R. §761.60) authorizing disposal of the PCBs in the lubrication oil at the concentration present, within 90 days of the date of this agreement DOE shall submit a copy of a contract to EPA to begin the disposal within 180 calendar days of the date of this agreement and complete the disposal of the PCBs in the lubrication oil no later than 240 calendar days from the date disposal starts or no more than a total of 426 calendar days from the date of this agreement. This time period may be extended by mutual, written agreement of the parties. Requests for extension are subject to the dispute resolution provisions of this Agreement. Disposal status and Notification of Completion shall be included in DOE's Annual Compliance Report.

REQUIREMENT (C) Spill Cleanup - PCBs and PCB contaminated oil that may leak onto building floors shall be cleaned up in accordance with the EPA Spill Cleanup Policy. For spills >500 ppm PCBs, this shall consist of cleanup to 10ug PCB/100cm² with 95% confidence, based on the statistical sampling approach set forth in Attachment III, which shall be used within the spill area to verify cleanup to appropriate levels or, alternatively, to 100ug PCB/100cm² with 95% confidence, based on the statistical sampling approach set forth in Attachment III, which shall be used within the spill area to verify cleanup to appropriate levels followed by application of an appropriate sealant, such as a 2-layered epoxy type paint. All spill cleanups will be initiated within 24 hours of discovery, excluding historic spills which are defined as PCB stains resulting from spills which have occurred prior to

the effective date of this Agreement. Historic spills may be left in place until demolition of the facility, provided public access to the facility is restricted to prevent unauthorized entry. In the event that a new spill should occur on a historic spill site, and the appropriate standard specified above cannot be met after best efforts to meet the standard are made, DOE may request that EPA consider the efforts DOE has made and classify the spill area as a historic spill for purposes of the cleanup under this Agreement.

Work Initiation Date: On-going

Documentation to be Provided to EPA:

- a. Quarterly report documenting PCB spills and PCB spill cleanup measures to be included in DOE's Annual Compliance Agreement Report and subject to EPA inspection

REQUIREMENT (D) Storage - Except as specifically set forth herein; all PCB waste storage areas shall meet storage area requirements in accordance with 40 C.F.R. §761.65, and shall not contain non-radioactive PCBs and PCB Items stored for more than one year. Radioactive PCBs and PCB Items may be stored for more than one year prior to disposal as set forth in Section 2(G) of this Attachment. The trough system contains multiple collection points for the PCB contaminated liquids which leak from the gaskets. For purposes of this agreement, the date these liquids are removed from service and placed into storage for disposal is the date they are transferred from the collection system into drums and placed into a PCB storage area. The DOE has ongoing programs to better characterize the radioactive content of its wastes to allow them to be disposed by the commercial sector. For purposes of this Agreement, when a radioactive PCB waste is determined to be non-radioactive, the date it is considered placed into storage for disposal will be the date on which it is certified by DOE to be non-radioactive. DOE may continue to utilize polyethylene storage containers for radioactive PCBs prior to criticality analysis. DOE may continue to store radioactive PCBs in polyethylene containers should criticality analysis indicate the need for such; otherwise, following such analysis the material will be transferred to appropriate storage containers.

Work Initiation Date: On-going

Work Completion Date: June 30, 1992

Documentation to be Provided to EPA:

- a. Notification of work completion

b. Certification that all PCB storage areas contain PCBs and PCB Items in storage for disposal for less than one year, excluding radioactive PCBs and PCB Items.

c. Certification that all PCBs and PCB Items designated for disposal are being stored in a PCB storage area which meets all storage area requirements under 40 C.F.R. §761.65.

REQUIREMENT DURING (E) Gasket Removal Program and Ventilation Duct

D&D. Management - Ventilation duct gaskets contaminated with PCBs shall be removed in accordance with NESHAP and applicable worker safety requirements, applicable asbestos removal requirements, and stored in accordance with TSCA and RCRA requirements, except as otherwise provided in this Agreement. Because of the enormous volume of contaminated ductwork and the limited regulation storage space available, it is agreed that during the ventilation ductwork/gasket removal, processing, and decontamination DOE may store ductwork in areas that do not meet the storage requirements set forth under TSCA and RCRA so long as the access to these storage areas is restricted and all necessary steps are taken to preclude the release of free flowing liquids. Following waste characterization, segregation, and processing, all resultant waste will be stored for disposal in accordance with applicable requirements of TSCA and RCRA. In no case shall DOE continue to store contaminated ductwork material in nonregulation areas after December 31, 2015 without the prior written approval of EPA. Ventilation ducts (and associated flanges) contaminated with PCBs shall be decontaminated pursuant to EPA's Spill Cleanup Policy, 40 C.F.R. Part 761.120 - 761.135, or be disposed of as required by Section 2(G) of this Attachment.

Work Initiation Date: 2005 or upon
decommissioning date,
whichever is earlier.

Work Completion Date: 2015 or within
ten years of work initiation
date, whichever is applicable.

Documentation to be Provided to EPA:

- a. Notification of work initiation
- b. Notification of work completion
- c. Yearly progress reports to be included in DOE's Annual Compliance Agreement Report

d. Certification that removal of gaskets is complete, and that all gaskets and gasket materials are being disposed of in accordance with Section 2(G) of this Attachment.

REQUIREMENT UNDER (F) Electrical Cables and Associated Equipment - PCB contaminated electrical cables and associated equipment shall be removed from the facilities upon decommissioning, unless they require maintenance, servicing or replacement during plant operations or gasket removal. If maintained or serviced, the cables, cable trays, and associated equipment shall be removed or cleaned up to 10ug PCB/100cm² or 100ug PCB/100cm² with 95% confidence followed by application of appropriate sealant.

Work Initiation Date: On-going

Work Completion Date: Upon demolition

Documents to be Provided to EPA:

a. Quarterly report documenting all cleanup measures and/or removal of electrical cables to be included in DOE's Annual Compliance Agreement Report and subject to EPA inspection.

REQUIREMENT (G) Disposal - All waste PCBs, PCB Items and ventilation ducts (and associated flanges), electrical cables and associated equipment contaminated with PCBs which were not decontaminated pursuant to Sections 2(C), 2(E), and 2(F) of this Attachment, shall be disposed of in accordance with 40 C.F.R. §761.60. All waste PCBs and PCB Items contaminated with hazardous waste and/or asbestos shall be disposed of in accordance with TSCA, NESHAP and RCRA requirements, and/or alternate disposal methods approved by EPA.

Work Initiation Date:

a. Non-radioactive PCBs and PCB Items - On-going

b. Co-contaminated, radioactive PCBs and PCB items stored for disposal - As soon as possible following establishment of an EPA-approved operating incinerator, or EPA-approved alternate disposal method.

c. Ventilation gaskets, ductwork and flanges, electrical cable, associated equipment, and historic spill material - upon demolition of the two facilities. [See Sections 2(E) and 2(F) of this Attachment].

Work Completion Date:

- a. Non-radioactive PCBs and PCB Items - within one year after the date the materials were placed into storage for disposal in accordance with Section 2(D) of this Attachment.
- b. Co-contaminated, radioactive PCBs and PCB Items stored for disposal - within ten years of work initiation date for materials already in storage; 2016 or within ten years of storage, whichever date is earlier, for materials placed into storage after effective date of this Agreement.
- c. Ventilation gaskets, ductwork and flanges, electrical cable, associated equipment, and historic spill material - 2016 or within ten years of work initiation date, whichever date is earlier.

Documentation to be Provided to EPA:

- a. Quarterly progress reports to be included in the DOE Annual Compliance Agreement Report and subject to EPA inspection. The progress report shall include an inventory of items disposed.
- b. Certification that all non-radioactive PCBs and PCB Items, which contain greater than 50 ppm PCBs, in storage for over one year, have been properly disposed.
- c. Certification that all radioactive and non-radioactive PCBs and PCB Items, including electrical cable and historic spill material have been properly disposed.

REQUIREMENT (H) Worker Safety Measures - All persons entering the active PCB spill areas shall be provided worker safety training and shall use suitable personal protective clothing and equipment sufficient to prevent unreasonable risk to human health posed by PCBs and any other hazardous material used or which is reasonably anticipated to be encountered during compliance with this Agreement in accordance with applicable worker protection standards.

Documentation to be Provided to EPA:

- a. Certification that suitable personal protective clothing and equipment is being utilized. To be provided 30 days from the

effective date of the Agreement.

~~(F)~~ Hydraulic Systems at Paducah GDP - The C-340 building at Paducah is a non-operating building that contains three PCB contaminated hydraulic systems above 50 ppm PCBs which have been drained and will not be refilled. The areas in C-340 where the hydraulic systems are located are radioactively contaminated due to past operations. Workers must wear protective clothing to enter these areas. Respiratory protection is required during air turbulence generating activities such as grinding, welding, and cleaning in all of the processing areas. In some locations within these areas, respiratory protection is required just to inspect components of the hydraulic systems. Therefore, all readily accessible PCB contaminated hydraulic systems components will be inspected and documented annually for leaks and accumulation of free liquid. The hydraulic systems and any residual PCBs contained therein may be left in place in the C-340 building until demolition in accordance with the schedule below. Final removal and disposal or decontamination of the PCB contaminated hydraulic systems will be conducted in accordance with Section 2(G) of this Attachment.

Work Initiation Date: 2005 or upon decommission date, whichever is earlier.

Work Completion Date: 2015 or within 10 years of work initiation date, whichever is applicable.

Documentation to be Provided to EPA:

- a. Results of annual inspection will be included in DOE's Annual Compliance Agreement Report and subject to EPA inspection.
- b. Notification of work initiation.
- c. Notification of work completion.
- d. Yearly progress reports upon work initiation to be included in DOE's Annual Compliance Agreement Report.
- e. Certification that removal of the hydraulic systems is complete and materials are being disposed of in accordance with Section 2(G) of this Attachment.

Selection of Random Sampling Sites

Random Numbers shall be used in the selection of some sampling sites at the DOE facilities. The random site selection process will be as follows:

1. Site selection requires accurate floor plans for facilities to be sampled and a table of random numbers (attached).
2. Establish a two dimensional grid system on the floor plan for each facility to be sampled. Grid intervals shall be no larger than three meters. Number the grid intervals by integers beginning with zero at the origin, which would be one of the corners of the inside of the building. These integers are the eligible numbers for potential random selection.
3. For purposes of sample site selection, there are two ways to generate random numbers to identify coordinates for each of the two dimensions for each building floor plan. One way is by the use of an automatic random number generator on an electronic calculator. The other way is by using the attached random number table.

To begin the site selection on the attached random number table, first select a random start location position on the random number table as follows:

- a. Locate a book with at least one hundred consecutive numbered pages.
- b. Locate a random start column on the random table by opening the book and taking the last digit of a page number. The far left column is column 1 and the far right column is column zero. Close the book.
- c. The first row is row one and the last row is number 45. Locate the random start row as follows:
 - i. Open the book again and select another last digit for the first digit of the row. Only zero through four are eligible for the first digit of the row since there are only 45 rows. If the last digit is five through nine (an ineligible selection), close the book and reselect, that is, open another page until a number between zero and four is the last digit. Close the book.
 - ii. Select the second digit the same way as the column number and the first digit of the row, reselecting if an ineligible digit is selected. For example, if the first digit is selected for the row is 4 and the second digit selected is six, the second digit must be reselected. If the random start

comes up 46 to 00, these numbers are ineligible and another digit should be selected.

- d. Once column and row are selected. The start location in the random number table will be the upper left side of the block of five numbers formed by the row and column.

A random start selection procedure is not needed for an automatic random number generator.

4. Using the randomly selected starting point on the random number table as in 3a.- 3d. above, or using an automatic random number generator, random numbers shall be taken from the table one dimension at a time to select each sampling point. The list of consecutive integers assigned to the grid lines for each dimension of each floor plan, as described in #2 above, define the eligible population of coordinates for each dimension of each floor plan.

For each floor plan, each sampling location should be selected one dimension at a time as follows. Select the number of consecutive digits in the random number table, or in the number generated by the automatic random number generator, that are in the grid line numbers. Usually this will be two (single digits should be preceded by a zero), for each of the two dimensions. These selected digits, when among the eligible population of coordinates for each dimension, will be the coordinates of the sampling location grid point.

- a. If using the random number table:

Continue selecting coordinates across a row from right to left and down a column. When all numbers in a column have been used, proceed to the first row of the next column and work down.

Example: Suppose column 5 and row 39 were selected on the random number table were selected. The number at the random start is 7. Therefore, the first dimension of the first floor plan is 76. If 76 is ineligible, then the next two digits should be 04. The next pair would be 55, 64, 41, 02, etc.

- b. If using an automatic random number generator:

- i. if the generator generates a single random digit at a time, select single digits one at a time until sufficient eligible digits are selected for each coordinate and for each floor plan; and

ii. if the generator generates more than a one digit number, start from the left side of each random number and select digits until sufficient eligible digits are selected. If there are insufficient digits generated to complete all necessary coordinates from a single generated random number, use all digits present to select complete coordinates (do not carry over unused digits) and then generate another number and continue selecting the additional coordinates until all have been selected and all have eligible coordinates.

5. Locating points on the floor, using the randomly selected coordinates, may not be as simple as identifying the location on the floor plan. Use "landmarks" on the floor plan as best as possible.

Using the two coordinates generated using random numbers, it is possible that a selected location is not eligible. Eligibility in this case is based on whether a sampler can physically be located at breathing level at a selected set of coordinates. Ineligibility may result from the presence of a wall, a pillar, or some other obstacle. In this case, place the sampler as near as possible to the selected location, so long as the nearby location is no more than half of a grid interval (along either coordinate axis) distant from the original location. If a sampler has to be moved from an ineligible location a distance of more than half of a grid interval along either coordinate axis, select two new sampling point coordinates, relocate the new sampling point in the building, and check the new sampling point for eligibility.

STATISTICS FOR MANAGEMENT

A PAGE OF RANDOM DIGITS

05128	59866	51281	68124	75064
86746	89698	56020	37810	88684
87513	17690	61427	72914	48563
02622	41026	80875	41293	21529
64981	28180	38629	76962	93285
57888	13938	38554	86836	02195
56316	37723	00234	21424	26664
98849	72762	59767	52497	24227
51632	54799	27973	68568	68465
12874	82160	67202	85199	27908
57580	77884	07032	01671	53362
51876	64611	19736	25589	46569
39133	30393	58319	85098	66519
24541	61477	89731	18421	29861
50859	84746	28302	13264	07595
28119	24200	09110	28485	30326
45206	53300	38688	39968	32604
57571	65919	56405	17839	92073
52829	01172	08915	11467	14793
00134	36233	89434	38669	91592
99826	64005	94325	73553	78280
11694	46262	55967	64603	59762
57622	93328	98885	07783	04351
82691	51238	14106	43983	33356
88799	65621	59809	37850	66128
69125	95591	81168	99246	66416
74698	44233	67602	21615	72336
77451	47350	21234	67672	80567
61715	96485	22121	98844	59289
92735	45064	50924	00865	19690
72353	45775	68590	85685	99975
12979	05720	92754	76911	55240
44365	70254	50864	36619	30094
49076	18439	29522	42541	79327
78143	65919	13699	91844	10676
03474	76025	97043	33834	44638
35870	89158	55864	98078	50563
73887	67928	60045	70782	11937
45968	73667	65062	73306	76045
67622	54579	17279	67440	56441
66913	60664	67647	39523	02043
74869	62155	09234	47367	13047
90879	44969	11129	17139	79630
95909	82459	96218	60768	76417
29212	40873	41590	67255	30757

Source: *A Million Random Digits with 100,000 Normal Deviates*, Rand Corporation; The Free Press, Glencoe, Illinois, 1950.

ANOTHER PAGE OF RANDOM DIGITS

79419	22359	65206	54941	96992
59914	04146	01419	48575	77822
49374	25473	60982	27119	16060
22199	11865	26201	18570	72808
13786	27475	31254	36050	73736
45445	41059	55142	55585	39829
21067	57238	35352	57741	98761
30302	95327	12849	15795	97479
70040	91385	96436	58982	91281
13351	48321	28357	88526	74396
15564	04716	14594	22363	85700
30987	57657	33398	63053	46792
79172	72764	66446	78864	96004
57875	45228	49211	69755	27896
57146	64665	31159	06980	64709
42826	06974	61063	97640	13433
93929	01836	36590	75052	89475
83585	00414	62851	48787	28447
27548	37516	24343	63046	02081
32982	56455	53129	77693	25022
30104	67126	76656	29347	28492
35240	00818	09136	01952	48442
94031	62209	43740	54102	76895
99321	11331	06838	03818	77063
78236	71732	04704	61384	57343
43108	56592	42467	88801	91280
91058	60958	20706	31929	57422
98172	44346	60430	59627	26471
12523	57345	41246	98416	08669
66682	82517	33150	27368	53375
01056	27534	23085	49602	74391
18730	96197	64483	40364	90913
07794	60475	49666	17578	12830
48883	77154	74973	42096	34934
70171	59431	76033	40076	20292
48830	55029	10371	09969	85857
73151	64463	50058	11468	03553
06571	96934	09132	13746	82514
76609	52553	47508	25775	91309
32138	61197	95476	69442	54574
04855	27029	01542	72443	72302
65434	12124	91087	87800	34870
86800	16781	65977	65946	65728
51233	81409	46773	69136	36170
02933	77341	20830	36126	18311

Source: *A Million Random Digits with 100,000 Normal Deviates*, Rand Corporation; The Free Press, Glencoe, Illinois, 1950.

ATTACHMENT II

*Does not apply
to PERIS*

OAK RIDGE GASEOUS DIFFUSION PLANT
REMEDIAL IMPLEMENTATION PLAN

(A) On-Site Disposal Investigation - DOE will provide EPA with a certification that all identified sites historically used for the disposal of PCB contaminated wastes are being or will be sampled and analyzed to determine the extent of contamination within the context of separate present or pending permits, Agreements or Orders between EPA and DOE. These requirements in the permits, Agreements, or Orders will satisfy EPA's Historical Spill Cleanup Policy.

Work Completion Date: Thirty days from this agreement becoming effective.

Documentation to be Provided to EPA:

- a. Certification that all PCB disposal sites at Oak Ridge are being investigated pursuant to separate permits, Agreements or Orders between EPA and DOE.
- b. Copies of permits, Agreements or Orders embodying requirements to investigate PCB disposal sites at the Oak Ridge Gaseous Diffusion Plant.

(B) Process Lubrication Oil - All process lubrication storage systems associated with the gaseous diffusion process shall be inventoried, sampled and the samples analyzed.

Work Initiation Date: On-going

Work Completion Date: September 30, 1991

Documentation to be Provided to EPA:

- a. Sample and Analysis Report - Includes inventory and results of sampling and analysis of process lubrication storage systems associated with gaseous diffusion process. Inventory shall include location, concentration of PCBs (ppm) and total volume of lubrication oil. This information will be included in DOE's Annual Compliance Agreement Report.

(C) Spill Cleanup - PCBs and PCB contaminated oil that has leaked or may leak onto building floors shall be cleaned up in accordance with the EPA Spill Cleanup Policy. For spills >500 ppm PCBs, this shall consist of cleanup to 10ug PCB/100cm² with 95% confidence, based on the statistical sampling approach set forth in Attachment III, which shall be used within the spill area to verify cleanup to appropriate levels or alternatively, to

100ug PCB/100cm2 with 95% confidence, based on the statistical sampling approach set forth in Attachment III, which shall be used within the spill area to verify cleanup to appropriate levels followed by application of an appropriate sealant, such as a 2-layered epoxy type paint. All spill cleanups will be initiated within 24 hours of discovery, excluding historic spills which are defined as PCB stains resulting from spills which have occurred prior to the effective date of this Agreement. Historic spills may be left in place until demolition of the facility, provided public access to the facility is restricted to prevent unauthorized entry.

Work Initiation Date: On-going

Documentation to be Provided to EPA:

a. Quarterly report documenting spills and spill cleanup measures to be included in DOE's Annual Compliance Agreement Report and subject to EPA inspection

(D) Storage - Except as specifically set forth herein, all PCB waste storage areas shall meet storage area requirements under 40 C.F.R. §761.65, and shall not contain non-radioactive PCBs and PCB Items stored for more than one year. Radioactive PCBs and PCB Items may be stored for more than one year but shall be scheduled for disposal as soon as possible. The DOE has ongoing programs to better characterize the radioactive content of its wastes to allow them to be disposed by the commercial sector. For purposes of this agreement, when a radioactive PCB waste is determined to be non-radioactive, the date it is considered placed into storage for disposal will be the date on which it is certified by DOE to be non-radioactive. All PCBs and PCB Items, except as noted, with PCB concentrations in excess of 50 ppm and which are currently not in use or are not intended for use during decommissioning shall be considered stored for disposal and placed into a storage facility in compliance with 40 C.F.R. §761.65. Ventilation ductwork shall be handled as described in Section (E) of this Attachment. PCB transformers shall be drained, drained fluid properly disposed and carcasses sealed. Prior to September 30, 1994, the date PCBs are considered stored for disposal is the date they are drained from the electrical equipment; the date PCB items are considered stored for disposal is the date they are physically removed from their present location.

Work Initiation Date: On-going

Work Completion Date: September 30, 1994

Documentation to be Provided to EPA:

- a. Notification of work completion in Annual Compliance Agreement Report.
- b. Notification to Regional Administrator if non-radioactive PCBs and PCB Items will be in storage for over one year until September 30, 1994.
- c. Certification that all PCB waste storage areas meet storage area requirements under 40 C.F.R. §761.65.
- d. By September 30, 1995, DOE shall provide EPA with certification that all PCB waste storage areas contain PCBs and PCB Items less than one year old, excluding PCBs and PCB Items co-contaminated radioactive materials.
- e. By September 30, 1994, DOE shall provide EPA with certification that all PCBs, PCB items and PCB equipment designated for disposal are being stored in a PCB waste storage area which meets storage area requirements under 40 C.F.R. §761.65.
- f. By September 30, 1994 DOE shall provide EPA with certification that all PCB transformers removed from service for disposal have been drained, drained fluid properly disposed and the transformer carcasses sealed.
- g. Certification that all PCB or PCB contaminated transformers removed from service for disposal have been drained, drained fluid properly disposed of, and the transformer carcasses sealed:
 - by October 1, 1991, for all askeral-filled transformers,
 - by March 31, 1992, for all mineral oil-filled transformers,

(E) Gasket Removal Program and Ventilation Duct Management
Motor ventilation duct gaskets impregnated with PCBs and co-contaminated with hazardous waste, asbestos, and/or radioactive materials from the process buildings shall be removed in accordance with applicable worker safety requirements for NESHAP, requirements for asbestos removal, stored and/or disposed in accordance with TSCA and RCRA requirements, except as otherwise provided pursuant to this Agreement. Because of the enormous volume of contaminated ductwork and the limited regulation

storage space available, it is agreed that during the ventilation ductwork/gasket removal, processing, and decontamination DOE may store ductwork in areas that do not meet the storage requirements set forth under TSCA and RCRA so long as the access to these storage areas is restricted and all necessary steps are taken to preclude the release of free flowing liquids. Following waste characterization, segregation, and processing, all resultant waste will be stored for disposal in accordance with applicable requirements of TSCA and RCRA. In no case shall DOE continue to store contaminated ductwork material in nonregulation areas after December 31, 2001 without the prior written approval of EPA. Motor ventilation ducts (and associated flanges) contaminated with PCBs shall be decontaminated pursuant to EPA's PCB Spill Cleanup Policy, 40 C.F.R. Part 761.120 - 761.135, or be disposed of as required by Section (G) of this Attachment.

Work Initiation Date: August 1, 1991

Work Completion Date: August 1, 2001 for removal of gasket material, ventilation duct decontamination by 2015 or final decommissioning project, whichever is earlier

Documentation to be Provided to EPA:

- a. Notification of work initiation
- b. Notification of work completion
- c. Yearly progress reports to be included in DOE's Annual Compliance Agreement Report
- d. Certification that removal of gaskets is complete, and that all gaskets and gasket materials are being disposed of in accordance with Section (G) of this Attachment.

(F) Electrical Cables - PCB contaminated electrical cables shall be removed and disposed of in accordance with 40 C.F.R. §761.60.

Work Initiation Date: Upon demolition

Documents to be Provided to EPA:

- a. Notification of work initiation
- b. Notification of work completion
- c. Quarterly progress reports to be included in DOE's Annual Compliance Agreement Report.

(G) Disposal - All waste PCBs, PCB Items and ventilation ducts (and associated flanges), electrical cables and associated equipment contaminated with PCBs which were not decontaminated pursuant to Sections (E) and (F) of this Attachment, shall be disposed of in accordance with 40 C.F.R. §761.60. The DOE has ongoing programs to better characterize the radioactive content of its wastes to allow them to be disposed by the commercial sector. For purposes of this Agreement, when a radioactive PCB waste is determined to be non-radioactive, the date it is considered placed into storage for disposal will be the date on which it is certified by DOE to be non-radioactive. All waste PCBs and PCB Items contaminated with hazardous waste and/or asbestos shall be disposed of in accordance with TSCA, NESHAP and RCRA requirements, and/or alternate disposal methods approved by EPA.

Work Initiation Date: On-going

Work Completion Date: 2015 or final decommissioning project completion, whichever is earlier.

Documentation to be Provided to EPA:

- a. Quarterly progress reports to be included in DOE's Annual Compliance Agreement Report and subject to EPA inspection. The progress report shall include an inventory of items disposed.
- b. Certification that all non-radioactive PCBs and PCB Items, which contain greater than 50 ppm PCBs, in storage for over one year, have been properly disposed.
- c. Certification that all radioactive and non-radioactive PCBs and PCB Items, including electrical cable and historic spill material have been properly disposed.

(H) Worker Safety Measures - All persons entering the active PCB spill areas shall be provided worker safety training and shall use suitable personal protective clothing and equipment sufficient to prevent unreasonable risk to human health posed by PCBs and any other hazardous material used or which is reasonably anticipated to be encountered during compliance with this Agreement in accordance with applicable worker protection standards.

Documentation to be Provided to EPA:

- a. Certification that suitable personal protective clothing and equipment is being utilized. To be

provided 30 days from the effective date of the Agreement.

(I) Baseline Air Sampling - PCB air sampling will be provided in process buildings with motor ventilation systems. Five samples will be taken annually except for buildings where active decontamination and decommissioning work is being performed. In buildings where active ventilation duct work is being performed, quarterly air sampling will be performed while work is in progress. Each quarter, five samples will be taken per process building. Air sampling results will be included in DOE's Annual Compliance Agreement Report, unless air monitoring results require DOE to submit a quarterly report. DOE shall report quarterly to EPA any PCB concentrations greater than 0.5 micrograms per cubic meter measured from any air monitoring sampler at any location. Upon receipt of any such measurement data, EPA will contact DOE to address further monitoring requirements and any other required actions. Should EPA conclude that air sampling results produced pursuant to this Agreement so warrant, EPA and DOE shall meet and shall agree upon additional protective measures to be taken by DOE.

ATTACHMENT III

Refer to Attachment I, P 26

STATISTICAL SAMPLING

REQUIRED FOR SPILL CLEANUP VERIFICATION*

If the cleanup area for a PCB spill which has occurred as of and subsequent to the effective date of this Agreement is:

- a. less than 100 cm² - Record the exact surface area of the spill and cleanup area and wipe sample the entire area.
- b. greater than 100 cm² but less than 500 cm² - Take one randomly located 100 cm² wipe sample.
- c. greater than 500 cm² but less than 1500 cm² - Take three randomly located 100cm² non-adjacent wipe samples.
- d. greater than 1500 cm² - Follow the sampling procedure set forth in EPA's Spill Cleanup Manual.

* Applicable for PCB spills \geq 500 ppm.

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