UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

Mr. Alvin L. Alm
Assistant Secretary for
Environmental Restoration
U.S. Department of Energy
1000 Independence Avenue
Washington D.C. 20585-0002

SEP 25 1997

Mr. Terry Lash, Director
Office of Nuclear Energy,
Science and Technology (NE-1)
5A-143/FORS
U.S. Department of Energy
1000 Independence Avenue
Washington, D.C. 20585-0002

Dear Messrs. Alm and Lash:

Attached is the signed 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). The implementation of this Compliance Agreement has been a success from which EPA has modeled other agreements. I understand that Ms. Janie Benton, of your staff is largely responsible for the Agreement's success and I commend Ms. Benton for her exceptional oversight.

Please feel free to call me at 202-564-2510 or have your staff call Diane Lynne at 202-564-2587, if you have any questions concerning this letter or the Agreement modifications.

Sincerely,

Craig Hooks
Director
Federal Facilities Enforcement Office

cc: Steven A. Herman
Michael M. Stahl

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Department of Energy
Germantown, MD 20874-1290

July 17, 1997

Mr. Craig Hooks
Acting Director
Federal Facilities Enforcement Office
U.S. Environmental Protection Agency
Washington, D.C. 20460

Dear Mr. Hooks:

By way of this letter, the Department of Energy (DOE) is requesting a modification to the February 20, 1992, Compliance Agreement between DOE and the U.S. Environmental Protection Agency (EPA). This agreement was entered into to address compliance with the Toxic Substances Control Act (TSCA) at DOE's three uranium enrichment facilities at Paducah, Kentucky; Portsmouth, Ohio; and Oak Ridge, Tennessee. The agreement establishes a plan that is intended to bring DOE's uranium enrichment facilities into compliance with TSCA and the polychlorinated biphenyl (PCB) regulations at 40 Code of Federal Regulations Part 761.

BACKGROUND INFORMATION AND PROPOSED MODIFICATIONS TO AGREEMENT

PCB-Impregnated Duct Gaskets at Portsmouth and Paducah and PCB Hydraulic Systems at Paducah

Attachment 1 of the agreement addresses the remedial actions to be implemented at the Portsmouth and Paducah plants. As identified in the agreement, 24 buildings at Paducah and 17 buildings at Portsmouth have duct gaskets impregnated with PCBs. These buildings are process facilities that are still in use for the enrichment of uranium. Attachment 1, section 2(E), Compliance Measures: Gasket Removal Program and Ventilation Duct Management, addresses the removal of PCB-contaminated gaskets and the duct work at Portsmouth and Paducah. The agreement provides that removal of the gaskets and ducts at Portsmouth and Paducah is to be initiated in 2005 or upon the decommissioning date, whichever is earlier, and completed in 2015 or within 10 years of the work initiation date, whichever is applicable.

Section 2(I), Hydraulic Systems, addresses the removal of three drained PCB hydraulic systems in the C-340 building at Paducah that has been shut down and is no longer in use. The agreement provides that removal of the gaskets and ducts

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at Portsmouth and Paducah is to be initiated in 2005 or upon the decommissioning date, whichever is earlier, and completed within 10 years of the work initiation date.

Amending the Duct Gasket Removal Requirements for Portsmouth and Paducah

Senior managers from EPA and DOE met on March 31, 1993, to discuss DOE's progress in meeting the remedial implementation plans in the agreement and the problems associated with the removal of the gaskets prior to decontamination and decommissioning (D&D). The duct work is suspended from the ceiling at the plants, and the fire suppression system and lighting were added after the duct work was in place. Even to remove and replace only the gaskets, portions of the enrichment process would need to be shut down and the lighting and fire suppression system disassembled, then reassembled after the new gaskets are put in place. The D&D cost of each plant is estimated at $3 billion; however, it is estimated that it would cost an additional $450-600 million to remove the gaskets at Portsmouth and Paducah if this project were completed before the plants are shut down and decommissioning starts. Most important is the increased radiological and industrial risks to workers since these removal activities would need to be done twice. The industrial accident risk for this activity provides the basis for this statement to be 1,000 lost work hours and one fatality. Consequently, EPA and DOE agreed to revise the requirements of the PCB gasket/duct removal program changing the initiation date to coincide with decommissioning. Although no formal minutes for the March 31, 1993, meeting were taken, this matter was discussed and documented in the minutes of the April 1, 1993, quarterly progress meeting that DOE sent to EPA on March 1, 1994. A January 19, 1995, EPA letter was sent to DOE concurring with these minutes.

Amending the Removal Requirements for Building C-340 Hydraulic Systems

In addition to the above modifications, DOE is also requesting to defer removal of the Paducah building C-340 hydraulic systems until D&D of the building. Building C-340 was the Metal Reduction Facility used to reduce depleted uranium hexafluoride to uranium metal. It is classified as radioactively contaminated due to past operations; workers are required to wear protective clothing and in some instances respirators to access the area. The building is no longer in use and is fenced and access restricted. The three hydraulic systems in building C-340 have been drained and are inspected annually for leaks and accumulation of free liquids. Initial D&D actions that have been taken include capping the floor drains and repairing the roof to minimize the potential for the release of contamination from the building. Consequently, in its present state, building C-340 and the drained hydraulic systems in it pose minimal risk to workers and the environment.

The costs for the removal of the drained hydraulic systems at Paducah building C-340 prior to D&D are estimated at $3 to $4 million. If the building C-340 hydraulic systems are removed during D&D, the costs are expected to be only $1 million resulting in a $2-3 million savings. The additional cost for removal prior to D&D is incurred from special engineering design work necessary to protect support structures and disassembly and reassembly of building components (i.e., concrete flooring, metal walkways, and platforms) for access to the hydraulic systems. Radiological and industrial risks would also increase if this work was done prior to D&D.

Deleting K-25, Attachment 2 of the Agreement

In addition to modifying the agreement for gasket and duct removal as discussed above, the parties also agreed in the March 31, 1993, meeting to transfer the requirements applicable to the K-25 site to a new separate agreement with EPA Region IV. This new agreement would cover not only the K-25 uranium enrichment facility but all other facilities at the Oak Ridge site. The new TSCA agreement for the Oak Ridge facilities was executed by DOE/Oak Ridge and EPA Region IV on December 16, 1996. Attachment 2 of the Uranium Enrichment TSCA Compliance Agreement, which addresses the Oak Ridge plant, is superseded by the December 16, 1996, Oak Ridge agreement; specifically, section I, paragraph 2, of the Oak Ridge agreement provides that "This Agreement supplants the requirements established for the K-25 site under the DOE Headquarters/EPA Headquarters TSCA Federal Facility Compliance Agreement dated February 20, 1992, which addressed uranium enrichment operations at DOE's gaseous diffusion plant (GDP) facilities in Portsmouth, Ohio; Paducah, Kentucky; and the K-25 site in Oak Ridge, Tennessee."

Accomplishments and Current Environmental Activities at the Sites

Even though the removal of the gaskets and ducts has not been initiated at the three sites, other significant activities relating to this TSCA agreement have been accomplished. Paducah has installed more than 16,000 troughs under the motor exhaust duct gaskets and has disposed of nearly 700,000 kilograms (kg) of PCB waste that included over 6,500 capacitors. Portsmouth has disposed of 487,000 kg of PCB-contaminated lube oil and retrofilled and reclassified 8 PCB-contaminated lube oil systems. An additional 459,000 kg of PCB liquid waste from Portsmouth has been disposed of at the Oak Ridge TSCA incinerator, and more than 16,000 motor exhaust duct flanges have been troughed. Portsmouth has disposed of 1.6 million pounds of PCB-contaminated electrical equipment. The K-25 site disposed of over 124,000 gallons of askerel fluid; this single action accounted for the removal of approximately 90 percent of all the PCB molecules from the K-25 site. In 1994, the K-25 site disposed of 638,000 kg of PCB waste including 10,344 capacitors.

In addition to activities under the TSCA agreement as described above, major programs are underway at the gaseous diffusion plants to treat and dispose of on-site wastes in order to accelerate remediation of the sites. During 1995, Paducah disposed of 1.1 million pounds of low-level waste and 20,000 pounds of treated mixed waste. A waste vitrification facility is currently under consideration at Paducah that has the potential to treat 80 percent of their 50,000 waste drum inventory. A Resource Conservation Recovery Act (RCRA)/TSCA permit will be sought for this thermal treatment process. Surface and ground water treatment systems have been installed for controlling the spread of organics, radioactivity, metals, and PCBs. An ion exchange filtration system, settling lagoons, lift stations, and pipelines have been installed to treat surface water. Four ground water extraction wells have been installed as an interim action to control the spread of trichloroethylene (TCE) and technetium-99 contamination off site until the characteristics of the plume are more fully known and a final action can be formulated. A total of five remedial investigations, six interim corrective measures, and two removal actions has been completed at Paducah.

Portsmouth has completed a site remedial feasibility investigation, corrective actions for 2 solid waste management units, and 13 RCRA unit closures. In 1994, Portsmouth completed cleanup of oil-contaminated clay solls using an innovative in-situ thermal vapor extraction technology and has completed construction of an underground barrier wall to prevent off-site migration of TCE to nearby residential wells. Portsmouth disposed of more than 1.2 million pounds of low level and mixed wastes in 1995.

In 1995, the K-25 site treated and disposed of approximately 12.5 million pounds of mixed waste and 1.5 million pounds of low-level waste. K-25 has completed two RCRA pond closures and removed and replaced two underground storage tanks. Two major D&D projects, the powerhouse and cooling towers, have been completed, and other D&D efforts are underway. These activities are a brief synopsis of the sites' remediation initiatives.

As provided for in section XIV, Modifications, of the February 20, 1992, compliance agreement, DOE is requesting modifications to the agreement. Enclosed is a proposed modification to the February 20, 1992, Uranium Enrichment TSCA Compliance Agreement. Once executed, these modifications would be effective.

Ms. Diane Lynne of your staff has worked closely with members of our staff in preparing the enclosed modifications to the agreement. We greatly appreciate the guidance and assistance that Diane has provided to members of our staff on this matter.

If you or your staff have any questions concerning this matter, please contact Ms. Jamie Benton at (301) 903-7321 or Mr. Bryan Skokan at (301) 903-7612.

Sincerely,

Alvin L. Alm
Assistant Secretary for
Environmental Management

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

Enclosure

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(I), 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
Acting Director
Federal Facilities Enforcement Office
U. S. Environmental Protection Agency

9/24/97
Date

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

7/17/97
Date

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

7/9/97
Date

OCT 1 1997

Department of Energy
Oak Ridge Operations
Paducah Site Office
P.O. Box 1410
Paducah, KY 42001

Chris Copy to file
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Pat G / John M
Rec → Rick Keeling
10/3/97 DMM
↓
Liz, Copy ✓
- Ken
- Martin
10/5/97
RJK

September 30, 1997

Mr. Jimmy C. Massey
Site Manager
Lockheed Martin Energy Systems, Inc.
761 Veterans Avenue
Kevil, Kentucky 42053

MODIFICATION TO THE TOXIC SUBSTANCE CONTROL ACT (TSCA) COMPLIANCE AGREEMENT

Dear Mr. Massey:

Enclosed for your information is the signed modification to the TSCA Compliance Agreement. If you have any questions or require additional information, please call W. David Tidwell at (502) 441-6807.

Sincerely,

Jimmie C. Hodges

Jimmie C. Hodges, Site Manager
Paducah Site Office

EF-22:Tidwell

Enclosure

cc: N. L. Carnes, CC-10
L. A. Eaton, JEG/PGDP
J. W. Parks, EF-20
R. C. Sleeman, EW-91

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