

## MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. BP Chemicals Inc.	3. License Number SUB-908 Amendment No. 10
2. Fort Amanda and Adgate Roads Lima, Ohio 45802-0628	4. Expiration Date May 31, 1997
	5. Docket or Reference No. 040-07604

6. Byproduct, Source, and/or  
Special Nuclear Material7. Chemical and/or Physical  
Form8. Maximum Amount that Licensee  
May Possess at Any One Time  
Under This License

A. Depleted Uranium

A. Solid Waste Materials

A. See 9. below.

9. Authorized use: For possession and storage of depleted uranium waste incident to the performance of radiation surveys and decontamination of facilities and plant areas including the packaging of waste for transfer and disposal.
10. Licensed material shall be used only at the licensee's address stated in Item 2. above.
11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."
12. DELETED
13. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in letters dated September 19, 1978, December 1, 1978, July 2, 1979, April 29, 1992, and June 12, 1992. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.
14. The licensee shall submit by November 15, 1988, a revised schedule for the decontamination of the ponds, grounds, buildings and other facilities on the Lima, Ohio site.

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License Number

SUB-908, Amendment No. 10

Docket or Reference Number

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15. Release of facilities and equipment to unrestricted use shall be in accordance with the enclosed Annex, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Nuclear Material," May 1987. Records of decontamination surveys and disposition of equipment and material shall be maintained until the license is terminated.
16. If the decontamination operation requires removal of contaminated residues from the waste retention ponds, the ponds shall not be backfilled until such confirmatory surveys as deemed necessary by the NRC are performed.
17. The Radiological Control Supervisor or Radiological Control Technician shall be onsite when decontamination activities are being conducted.
18. The Radiological Control Function shall conduct a daily inspection of all decontamination areas while the decontamination activities are being conducted. Findings of potential or actual license violations shall be communicated within 8 hours to the Contractor's Site Supervisor and Radiological Control Supervisor. Records of the findings and corrective actions taken shall be kept until the license is terminated.
19. The licensee shall not allow an individual whose skin is found contaminated above background radiation levels to exit the controlled area without prior approval of the Radiological Control Function.
20. The minimum calibration frequency for radiation survey instruments shall be at intervals not to exceed 7 months or after each repair, whichever is earlier.
21. The license expiration date of May 31, 1992, for completion of decontamination and decommissioning activities at Fort Amanda Road and Adgate Road shall be extended to May 31, 1997.
22. Licensed material shall be used by, or under the supervision of, Messrs. Joseph H. Martz, Thomas E. Dixon, and Robert J. Ryan, at the Lima, Ohio facility.
23. Note: This condition replaces Condition 23 of License Amendment No. 7 dated October 13, 1993.)

Based on the letters of September 19, 1994, October 25, 1994, October 31, 1994 and November 11, 1994, BP Chemicals, Inc. is permitted to directly transfer water collected in Deepwell Pond, Burn Pond and Celite Pond with uranium concentrations less than 30 pCi/l from the mixed waste pond closure project into its system of underground injection wells subject to following criteria:

- a. The concentration of pond waters to be injected into the system of underground injection wells is limited to 30 pCi/l of uranium based on a daily average limit.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

SUB-908, Amendment No. 10

Docket or Reference Number

040-07604

- b. The licensee shall test and verify the activity of the pond water prior to each transfer to ensure that the water transferred to the underground injection wells does not exceed 30 pCi/l based on a daily average of analyses. This verification shall be documented and maintained by the licensee.
  - c. A surface coating of alkaline, non-radioactive solids shall be maintained over radioactive sludges in the ponds to prevent any release of radioactivity greater than 30 pCi/l into the pond waters while the radioactive sludges are maintained in storage. In order to prevent resuspension and entrainment of the settled solids during water transfer, a flotation collar or its functional equivalent shall be employed to suspend the inlet of the pump suction hose near the top surface of the pond. A minimum vertical clearance of eighteen (18) inches shall be maintained between the suction hose inlet and the top of the alkaline surface coating layer.
  - d. When it becomes necessary to mobilize the pond sludges for stabilization and burial, "additional treatment" shall be provided to limit the pond water to 30 pCi/l. The licensee shall demonstrate to the satisfaction of the Commission the acceptability of the "additional treatment" prior to mobilizing the pond sludges.
  - e. The injection volume may be as necessary to accommodate the disposal within the OHIO EPA UIC Permit constraint of not exceeding 24 million gallons injected per month.
24. Except as specifically provided otherwise in this license, the licensee shall conduct its mixed waste pond closure program in accordance with the statements, representations, and procedures contained in the licensee's revised application dated February 7, 1994, as supplemented in submittals dated May 25, 1994, March 13, 1995, June 28, 1995, July 28, 1995, September 8, 1995, September 20, 1995, October 13, 1995, October 30, 1995, November 10, 1995, December 5, 1995, December 6, 1995, January 2, 1996, and April 2, 1996.

The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

- a. The licensee will conduct surveys to determine compliance with the unrestricted use criteria stated in the February 7, 1994 application, as supplemented, as follows:
  - i. The concentration of residual uranium remaining in the soils under the closure cells shall be determined by the licensee, in accordance with the "Soil Sampling Plan: Mixed Waste Pond Closure Project, BP Chemicals, Lima, Ohio," July 1991, prepared for V-1 Pond site, as supplemented in

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License Number

SUB-908, Amendment No. 10

Docket or Reference Number

040-07604

submittals dated July 1992, August 1992, November 1992, March 1993, and July 1993.

- ii. The licensee shall receive unrestricted release of each pond area from NRC prior to initiating construction of the closure cell in that area.
  - iii. The concentration of uranium in the material to be placed into the closure cells shall be determined by the licensee in accordance with the "Revised Sampling Plan for Verification of Stabilized Sludge and Soil Radioactivity Levels," Document No. 22007-008-006, dated October 13, 1995, as supplemented in submittal dated December 5, 1995.
  - b. Potentially contaminated water from the pond closure project, which will be injected into the licensee's underground deepwell injection system, shall be below 1.11 Bq/l (30 pCi/l). The underground disposal of water shall satisfy the requirements in License Condition 23.
  - c. The licensee will conduct air sampling as described in the "Project Health and Safety Plan" and "Radiological Control Plan."
    - i. If occupational air sample results exceed  $1.0\text{E-}11$   $\mu\text{Ci/ml}$  (50 percent of the 10 CFR 20, Appendix B, Table 1, Column 3, air concentration limit), the Radiation Safety Officer and Construction Manager shall be notified, and an investigation shall be conducted and documented to determine if modifications to work conditions are necessary.
    - ii. Continuous air sampling will be conducted at the work zone perimeter to ensure that the airborne radioactivity at the perimeter is less than the 10 CFR 20, Appendix B, Table 2, Column 1 air concentration of  $6.0\text{E-}14$   $\mu\text{Ci/ml}$ . If the concentration exceeds the limit, the Radiation Safety Officer and Construction Manager shall be notified, and an investigation shall be conducted and documented to determine if modifications to work conditions are necessary.
  - d. At the completion of construction of each closure cell, the licensee shall submit to the NRC a copy of the final report to the Ohio Environmental Protection Agency, as described in the revised application dated February 7, 1994 (Appendix E, Section 9.4 - Final Documentation) for license amendment.
25. The procedure for licensee-initiated and approved field changes as described in the letter, "Request for license amendment to establish a procedure and protocol for NRC review and approval of proposed field changes for the mixed waste pond closure project", dated October 24, 1996, may be used provided that:
- i. review of all proposed field changes to the "Mixed Waste Pond Closure Project" by the Project Manager or his designee is in accordance with the Administrative Procedure AP-02 "Field Changes;"



**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number

SUB-908, Amendment No. 10

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040-07604

- ii. the licensee submits to the NRC for approval any changes that would result in an unreviewed safety question, a change in a license condition, or changes that would have significant adverse effect on the quality of the work, the mixed waste pond closure project objectives, or health and safety;
- iii. the licensee documents the changes made.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

DATE:

12-10-96

BY:

*John W. N. Hickey*  
\_\_\_\_\_  
John W. N. Hickey, Chief

Low-Level Waste and Decommissioning  
Projects Branch  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

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DATE: 12/10/96

BY: ORIGINAL SIGNED BY: ]  
 John W. N. Hickey, Chief  
 Low-Level Waste and Decommissioning  
 Projects Branch  
 Division of Waste Management  
 Office of Nuclear Material Safety  
 and Safeguards

TICKET:LLDP-150

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SUB-908, Amendment No. 10

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FOR THE U.S. NUCLEAR REGULATORY COMMISSION

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

Michael F. Weber, Chief  
 Low-Level Waste and Decommissioning  
 Projects Branch  
 Division of Waste Management  
 Office of Nuclear Material Safety  
 and Safeguards

TICKET:LLDP-150

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Michael F. Weber, Chief  
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