# PART III SECTION J, ATTACHMENT P

# MANAGEMENT OF SPECIAL NUCLEAR MATERIAL, SPENT NUCLEAR FUEL, RADIOACTIVE WASTE, AND VOLUNTARY CONSENT ORDER

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## Management of Special Nuclear Material, Spent Nuclear Fuel, Radioactive Waste, and Voluntary Consent Order

### Special Nuclear Material (SNM)

The INL Contractor is responsible for the safe and effective management of all NE-owned SNM presently located at the Test Reactor Area and ANL-W facilities. These materials shall be managed in accordance with the governing DOE Orders and consistent with DOE policy. Management of SNM shall be cost effective.

The INL Contractor shall cooperate with the ICP Contractor on SNM management efforts. As a component of these overall SNM management efforts, the INL Contractor shall assure completion of the following activities:

1. Safely receive and store SNM from the ICP Contractor originating at CPP651 in order to allow the closure of that INTEC facility. The material is identified in the ICP contract DE-AC07-05ID14516 Section C, Table C.2, items 5 through 10. The target date for completion of INL's receipt of this material is by the end of FY2005. The INL Contractor is responsible for the receipt, storage, and material control and accountability (MC&A), including any receiving facility modifications, preparations and safety documentation. The ICP Contractor will prepare and ship the material to the INL Contractor, and retains responsibility for final disposition of the material.

2. Safely store and perform MC&A on the unnirradiated SNM (approximately 400kg) identified in the ICP contract DE-AC07-05ID14516 Section C, Table C.6 until that material is removed by the ICP Contractor. This material is presently located at TRA facilities. The ICP Contractor funds the disposition of this material, including the retrieval, packaging, handling and transport. The target completion for the removal of this material from INL facilities is by the end of FY2009.

### Spent Nuclear Fuel (SNF)

The INL Contractor shall be responsible for the safe and effective management and disposition planning for the NE-owned SNF. Through FY 2010, the INL Contractor shall be responsible for the transfer of SNF from the ATR to INTEC. During this period, the INL Contractor shall be responsible for delivering a loaded cask to the INTEC gate. The INL Contractor must develop capacity to manage ATR SNF through final disposition beyond FY 2010. This includes having any new interim storage capability on-line for the ATR spent fuel, as well as a path for final disposition (e.g., repository or reprocessing). Any new SNF interim storage or handling capacity developed by the INL Contractor shall be designed and located consistent with the future nuclear mission of the INL.

The INL Contractor shall cooperate with the ICP Contractor on SNF management efforts. As a component of these overall SNF management efforts, the INL Contractor shall assure completion of the following activities:

1. Receive ant treat approximately 0.4MTHM of legacy epoxied SNF from the ICP Contractor facilities. The INL Contractor will return the treated fuel product as well as any low level or mixed-low level waste treatment by-products to the ICP Contractor for disposition. In the event the fuel treatment utilizes the electro refiner or generates "orphan" waste, the INL Contractor is responsible for the disposition these materials. The ICP Contractor will prepare and ship the material to the INL Contractor, and retains responsibility for final disposition of the material (except as noted above). The INL Contractor's completion of the treatment must be in time support the ICP Contractor's disposition of this treated material in FY2012.

2. Safely store the SNF (approximately 5kg) identified in the ICP contract DE-AC07-05ID14516 Section C, Table C.7 until the ICP Contractor removes that SNF. This material is presently located at TRA facilities. The ICP Contractor funds the transfer of this material, including the retrieval, packaging, handling and transport. The target completion for the removal of this material from INL facilities is by the end of FY2009.

3. Safely transfer the ATR SNF identified in the ICP contract DE-AC07-05ID14516 Section C.2.7.1 from ATR to INTEC. In FY2005, a maximum of 120 elements (equates to 15 total shipments) of ATR spent fuel shall be transferred from ATR to INTEC. From FY2006 through FY2010, the INL Contractor shall transfer up to 31 shipments of ATR SNF per year (a total of up to 1,230 elements over these years) to the ICP Contractor. The INL Contractor is responsible for delivery of all ATR SNF (from FY2005 through FY2010) to the INTEC receiving facility (e.g., CPP-666 door). For the ATR SNF delivered to INTEC in FY2005, the ICP Contractor is responsible for receipt, handling, storage, and preparations for disposal. For ATR SNF transferred to INTEC from FY2006 through FY2010, the INL Contractor is responsible for the cost of preparation for disposal.

**Radioactive Waste**

The existing low-level waste (LLW) disposal capability at the Radioactive Waste Management Complex will be available to the INL Contractor through FY 2008 for contact-handled LLW, and FY 2009 for remote-handled LLW. The INL Contractor shall be responsible for delivering the LLW to the RWMC gate, where the ICP Contractor will take custody of the transport vehicle and shipment for disposal.

The INL Contractor shall attain an alternate disposal capacity (off-site) and have this disposal capacity on-line by October 1, 2008 for contact-handled LLW, and by October 1, 2009 for remote-handled LLW. The new disposal capacity shall include any required supporting transportation system needed to accommodate both INL and, if necessary, other tenant (e.g., NRF) remote-handled LLW waste.

The INL Contractor shall cooperate with the ICP Contractor on radioactive waste management efforts. As a component of these overall waste management efforts, the INL Contractor shall assure completion of the following activity:

Receive, treat or repackage, characterize and disposition 30 canisters (HFEF Inserts) of remote-handled TRU waste from the RWMC. These 30 canisters are identified in the ICP contract DE-AC07-05ID14516 Section C.3.5.1. The ICP Contractor will deliver this material to the INL Contractor at receiving MFC facility (e.g., Radioactive Scrap and Waste Facility). The target completion for the ICP Contractor's transfer of these 30 canisters of waste is by the end of FY2009, but will be no later than the end of FY2012. The INL Contractor shall complete all actions (including shipment to WIPP) in time to meet the Idaho Settlement Agreement Date (target 2015).

## Voluntary Consent Order

The INL Contractor is responsible for the following VCO items. The INL Contractor shall coordinate with the ICP Contractor on VCO reporting, etc., to the state of Idaho.

### VCO ISSUE - SITE-TANK-005 VCO Actions Required After January 31, 2005
### NE-Funded Activities

| FACILITY | AREA | BLDG # | TANK # | TANK DESCRIPTION | Next VCO Action |
|---|---|---|---|---|---|
| **TRA-001** (Tracking number 196 only) | **TRA Legacy Waste** | | | | |
| TRA | ATR | TRA-670 | ATR Canal | ATR CANAL TRASH, CONSISTING OF METAL PNEUMATIC RABBIT TERMINALS SHIELD AND CIT PLUGS, CONTAINING RADIOACTIVELY CONTAMINATED LEAD | STORAGE, TREATMENT AND FINAL DISPOSITION |
| **TRA-004**[a] | **TRA Hot Waste Management System** | | | | |
| TRA | MTR | TRA-605 | TRA-605-B | HOT WASTE STORAGE TANK | RCRA Closure |
| | | TRA-613 | 713-B | HOT WASTE STORAGE TANK | RCRA Closure |
| | | TRA-613 | TRA-713-C | HOT WASTE STORAGE TANK | RCRA Closure |
| | | TRA-613 | TRA-713-D | HOT WASTE STORAGE TANK | RCRA Closure |
| | | TRA-613 | TRA-613-A | PUMP VAULT SUMP | No Further VCO Actions |
| | | TRA-613 | 613B | PUMP VAULT SUMP | No Further VCO Actions |
| **TRA-009**[a] | **TRA Fluorinel Dissolution Process Mockup and Gamma Facilities Waste System** | | | | |
| TRA | MTR | TRA-641 | | AIR TANK | No Further VCO Actions |
| | | TRA-641 | | CATCH TANK | RCRA Closure |
| | | TRA-641 | | MOCK UP TANK, PLEXIGLASS | RCRA Closure |
| | | TRA-641 | | CANAL SUMP | RCRA Closure |
| | | TRA-641 | | RECEIVER TANK | RCRA Closure |
| **TRA-011** | **TRA Retention Basin System** | | | | |
| TRA | MTR | TRA-612 | | INACTIVE ANCILLARY PIPING AND EQUIPMENT | RCRA Closure & NSIF[b] |
| **TRA-019** | **TRA Gamma Facility Off-Gas Scrubber System** | | | | |
| TRA | MTR | TRA-641 | | SCRUB TANK | No Further VCO Actions |
| | | TRA-641 | | DEMISTER TANK | No Further VCO Actions |
| | | TRA-641 | | QUENCH TANK | No Further VCO Actions |

a. Action has not been approved by IDEQ. Conclusions presented in this table are based on the activities completed as of March 4, 2004, by the VCO/DD&D Service Team. For some of these tanks, the "Next VCO Action" will change as milestone completion documentation is completed and approved by IDEQ.

b. Piping associated with tank system TRA-011 was determined to be RCRA hazardous; the retention basin itself and associated sumps were characterized as nonhazardous.