

**UT-BATTELLE, LLC
REQUEST FOR EXCEPTION TO THE PRESUMPTION
OF DESTRUCTION FOR TRIGGER LIST ITEMS
D-COILS**

1. Full Description, Condition, and Prior Use of Item

Nine each - Calutron Coils approximately 10' 6" high, 9' wide and 3' thick. Each coil weights approximately 65,000 lbs. of which 22,000 lbs are copper conductor and 43,000 lbs. of carbon steel casing and center core. All the coils were filled with oil, but this oil was drained several years ago. The interior of the coils have been rinsed and drained twice, however, the legacy of PCB's remains at a count of >50 to <110 ppm. The coils are inoperable and cannot be brought to an operational condition. With a carbon steel casing, rust has formed within the inside walls and this has migrated between each copper turn, which in effect, will cause a turn-to-turn short. To further enhance the inoperability of the coils a hold was drilled through the copper turns and steel rebar was driven in the hole and through the copper conductor.

The oil containment area of the Coils must be treated to reduce the PCB reading to <50 ppm prior to introducing any materials into commerce. The remaining metals are required to be sheared and sold as scrap metals.



2. Justification for an Exception

A) The recommendation for rendering the D-Coils to a state of non-proliferation. Leonard Phillips of the Nonproliferation & Arms Control Assess Organization, (865) 574-8059, recommends the following:

"The recommendation of the Nuclear Securities Organization is to cut each coil from top to bottom in half."

B) The recommendation to dispose of the PCB contamination. Jason Taylor of the Environmental Protection & Waste Services Division, (865) 574-8059 recommends the following:

"Given the size of each coils, the value of the metals, and the legacy PCB contamination, all disposal and decontamination options under the TSCA regulations have been considered. The best option available is to disposed of the PCBs in a scrap metal recovery oven as defined in the TSCA regulations at 40 CFR 761.72, and recover the metals. Scrap metal recovery ovens are designed to destroy the PCB contamination and subsequently recover the metal for recycle."

UT-Battelle, LLC is requesting permission to take the following steps to disposition the D-Coils in compliance with EPA, TSCA and Department of Commerce Laws and Regulations.

- Develop a no-cost Subcontract requiring of disposal of PCBs and the cutting of the D-Coils in half. The RFQ would be issued to EPA licensed Vendors who have advised EPA that they comply with the requirements for scrap metal recovery ovens at 40 CFR 761.72(a) as identified at url: <http://www.epa.gov/opptintr/pcb/oven.htm>. In conjunction with the subcontract a draft Sales Contract will be provided and a bid accepted from the Vendors.
- The Subcontractor will be required to transport the D-Coils by rail in a gondola, as a certified shipment
- The Subcontractor will be required to certify that all personnel involved with the subcontract until after the cutting has been completed are U.S. citizens.
- UT-Battelle, LLC personnel will be present to witness the disposal of the PCBs and cutting of the D-Coils. The Subcontractor will issue a certification of all completed work.
- Upon completion of the PCB disposal and cutting in half, a final Sales Contract and Invoice will be issued to the subcontractor, which will transfer title of the property to the subcontractor.

(Note: None of these items have been located in a radiological control area).

3. Trigger List Citation for the Item

5.9. Especially designed or prepared systems, equipment and components for use in electromagnetic enrichment plants

INTRODUCTORY NOTE

In the electromagnetic process, uranium metal ions produced by ionization of a salt feed material (typically UCh) are accelerated and passed through a magnetic field that has the effect of causing the ions of different isotopes to follow different paths. The major components of an electromagnetic isotope separator include: a magnetic field for ion-beam diversion/separation of the isotopes, an ion source with its acceleration system, and a collection system for the separated ions. Auxiliary systems for the process include the magnet power supply system, the ion source high-voltage power supply system, the vacuum system, and extensive chemical handling systems for recovery of product and cleaning/recycling of components.

5.9.1. Electromagnetic isotope separators

Electromagnetic isotope separators especially designed or prepared for the separation of uranium isotopes, and equipment and components therefor, including:

(a) Ion sources

Especially designed or prepared single or multiple uranium ion sources consisting of a vapor source, ionizer, and beam accelerator, constructed of suitable materials such as graphite, stainless steel, or copper, and capable of providing a total ion beam current of 50 mA or greater.

(b) ion collectors

Collector plates consisting of two or more slits and pockets especially designed or prepared for collection of enriched and depleted uranium ion beams and constructed of suitable materials such as graphite or stainless steel.

c) Vacuum housings

Especially designed or prepared vacuum housings for uranium electromagnetic separators, constructed of suitable non-magnetic materials such as stainless steel and designed for operation at pressures of 0.1 Pa or lower.

EXPLANATORY NOTE

The housings are specially designed to contain the ion sources, collector plates and water-cooled liners and have provision for diffusion pump connections and opening and closure for removal and installation of these components.

(d) Magnet pole pieces

Especially designed or prepared magnet pole pieces having a diameter greater than 2 m used to maintain a constant magnetic field within an electromagnetic isotope separator and to transfer the magnetic field between adjoining separators.

5.9.2. High voltage power supplies

Especially designed or prepared high-voltage power supplies for ion sources, having all of the following characteristics: capable of continuous operation, output voltage of 20,000 V or greater, output current of 1 A or greater, and voltage regulation of better than 0.01% over a time period of 8 hours.

5.9.3. Magnet power supplies

Especially designed or prepared high-power, direct current magnet power supplies having all of the following characteristics: capable of continuously producing a current output of 500 A or greater at a voltage of 100 V or greater and with a current or voltage regulation better than 0.01% over a period of 8 hours.

4. Complete Name, Address, and Phone Number for Intended Recipient

Currently there are only seven Companies who have advised EPA that they comply with the requirements for scrap metal recovery ovens at 40 CFR 761.72(a); who will receive the RFQ:

- Environmental Protection Services
4 Industrial Park Drive
PO Box 710
Wheeling, WV 26003
- Transformer Disposal Specialists, Inc.
PO Box 428
Tonkawa, OK 74653
- Transformer Salvage, Inc.
PO Box 888
Dudley, NC 28333
- T & R Service Company
PO Box 197
West Highway 34
Colman, SD 57017
- G & S Technologies
1800 Harrison Avenue
Kearny, NJ 07032
- Solomon Corporation
103 W. Main St.
Solomon, KS 67480
- Trans Ind Corporation
2031 Westwood Avenue
Richmond, VA 23230

After award of the subcontract is made, information can be provided for the specific Vendor.

Submitted by: Marcia D. Whitson, Sales Administrator
UT-Battelle, LLC
P. O. Box 2008, MS 6409
Oak Ridge, TN 37831-6409
Phone: 865-241-5120, Fax: 865-241-4029

Submit To: Randall Riggs, Property Administrator
U.S. Department of Energy, Oak Ridge Operations
POB 2001, Oak Ridge, TN 37831-8756
Phone: 865-576-1002, Fax: 865-576-9189

This form will be submitted to DOE/HQ for consideration of approval by the Assistant Secretary to the Director of the Office of Nonproliferation and National Security.