

United States Government

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Department of Energy

Rocky Flats Field Office

memorandum

DATE: MAR 2 9 1993

REPLY TO
ATTN OF: EGD:PMP:12271

SUBJECT: Final Revised Categorical Exclusion for Six Decontamination & Decommissioning Projects

TO: Bill Fitch, Environmental Restoration MSA Division, RFFO

I reviewed the revised draft categorical exclusion (CX) package for six decontamination and decommissioning projects proposed as pilot projects at Rocky Flats. The additional information concerning demolition of Building 889 as a part of a pilot demonstration has been incorporated into a revision of the original CX, and the final CX is attached. The final CX needs to be sent through concurrence to the front office for approval. The Office of Chief Counsel should be included in concurrence.

Please send a copy of the approved categorical exclusion to your counterparts in EM, and send a courtesy copy of the approved CX to EM-20, Steve Nesta of EG&G, and me. Call me at x3260 if you have any questions.



Patricia M. Powell
NEPA Compliance Officer

Attachment

cc w/Att:
P. M. Powell, RFFO

ADMIN-RECORD

IA- IA-A-00087

Best Available Copy

DOE NEPA REGULATIONS SUBPART D
CATEGORICAL EXCLUSION DETERMINATION - RFO/CX23-94A

Proposed Action: Decontamination and Decommissioning Pilot Projects (Revised)

Location: Buildings 121, 123, 777, 779, 889, and near Trailer 771G, within the Industrial Area, Rocky Flats Environmental Technology Site, Golden, CO

Proposed by: U.S. Department of Energy, Rocky Flats Field Office

Description of the proposed action:

Rocky Flats Field Office proposes to perform six pilot projects for decontamination and decommissioning (D&D) of equipment and buildings at RFETS (Figure 1). These projects are relatively small clean up projects that represent the kinds of D&D activities that would be done on a large-scale at the RFETS as the D&D program grows. These projects would provide a lessons learned that would be applied to larger projects in the future.

Planning for these projects began in 1994, and they are expected to be completed by 1997. Total cost of all six projects is currently estimated at \$5 million.

Sodium Hydroxide Tanks Decontamination and Removal

This pilot project consists of removing three plastic tanks which were used to store sodium hydroxide (NaOH) solution as part of the scrubber systems for Building 123. Two of the tanks are connected to the scrubber systems, one was disconnected or was never connected to its scrubber system. None of the tanks are currently in service and they are empty. Each tank is approximately 2.5 feet in diameter and 4 feet in height. The two tanks that were connected to the scrubber system are positioned on separate concrete pedestals adjacent to their respective scrubber systems. The exteriors of the two connected tanks are covered by asbestos insulation approximately 2 inches thick and they weigh about 100 lbs. The piping connecting the tanks and the scrubbers is wrapped with insulation which appears to be made of fiberglass. Samples would be taken from the tank and piping insulation to determine content and appropriate disposition.

This proposed action would remove the insulation around the piping, clean the piping with a damp cloth, remove the piping, and cap the scrubber connection. Building 123 operations requiring the scrubber would temporarily cease operations during the tank removal process. The asbestos insulation would then be removed from around the tanks, in accordance with Occupational Safety and Health Administration (OSHA) regulations, and disposed of in an approved facility. If it is not cost effective to remove the asbestos insulation from the tanks, the tanks and the insulation would both be disposed of at an approved facility. The piping, valves, controls, and tanks would be disposed of as sanitary waste. The job site would be monitored for airborne asbestos during the process.

Security Incinerator Removal

This pilot project would remove the security incinerator and associated equipment which is located adjacent to the southwest corner of Building 121. The incinerator was used to burn classified documents, including "No Carbon Required" paper which contains high concentrations of polychlorinated biphenyls (PCBs). The incinerator is no longer in service.

Equipment to be removed includes the incinerator burn box, which is approximately 7 feet in

length and 6.5 feet in width and height, and an exhaust stack with a spark arrestor. The exhaust stack is 2 feet in diameter and 25 feet high. A 6 x 6 foot platform, located near the top of the stack to allow access to monitoring probes, would also be removed. In addition to the incinerator, a chain link fence and solid wind break wall would also be removed. The wind break wall has been determined to contain non-friable asbestos.

Hazardous materials, in addition to PCBs, which may be present in the incinerator include dioxin, furans, and heavy metals. The firebrick in the incinerator may also contain asbestos. The existence of these contaminants would be verified by sampling and analysis. Material contaminated with PCBs would be placed into approved storage containers and stored in the TSCA approved storage area in Building 666. All hazardous waste would be placed in appropriate white and black drums, properly marked and sealed, and transported to a RCRA permitted storage area. Waste generated from this project would include about one ton of scrap iron and steel, about 100 pounds of non-friable asbestos, about one ton of asbestos within the firebrick, and approximately 50 pounds of PCB contaminated waste in the form of ash.

Tank No. 107 & 108 Removal

This pilot project would decontaminate, if necessary, and remove three tanks and associated piping from around Building 774. Two of the tanks are steam condensate storage tanks 107 and 108 northwest of Trailer 771G. These two tanks are located on a concrete slab foundation with a concrete retaining wall on three sides. The third tank is a sodium hydroxide (NaOH) storage tank located on the north side of Building 774. All of the tanks are currently out of service.

Currently, there is nearly one foot of water and a small amount of mud surrounding the condensate storage tanks due to lack of required maintenance on the drainage ditches in the immediate area. The condensate storage tanks are located in Individual Hazardous Substance Site #139.1N, within Operable Unit 8. The area is posted as being PCB contaminated. If PCB contaminants are encountered during the tank removal process, cleanup of the contaminants would be performed in accordance with applicable procedures and regulations.

The steam condensate storage tanks are each 21.5 feet in diameter and 8 feet in height, with a capacity of approximately 20,000 gallons. The NaOH tank is 8 feet in diameter and 16 feet high, with a capacity of approximately 6,000 gallons. All of the tanks would be cut into sections and removed. If require, a crane would be used to lift the sections from the area. Water and mud on the concrete pad would be drained off the pad prior to any removals.

The project also includes the removal of all associated pumps and piping. The piping that has significant lengths running underground would be cut off at ground level, and the underground sections would be left in place. Refer to Figure 2 for more details of the pumps and piping.

Approximately 11,000 pounds of solid, possibly low-level waste would be generated from this activity, excluding the sodium hydroxide tank. In addition, about 5,000 gallons of water contaminated with sodium hydroxide would be generated; however, neutralization of pH level would allow discharge on site.

Building 889 Decontamination and Demolition

Building 889 was designed and used as the non-Perimeter Security Zone decontamination and repackaging facility. Building 889 is a small building with modest uranium contamination. Equipment contaminated with low levels of Uranium 238, Beryllium, and other possibly hazardous materials were decontaminated, size reduced, and packaged for disposal in this building. No plutonium materials were processed in this facility. The facility consists of three Radiological Control Areas. Room 106 in the building is currently being used as the repackaging area.

This pilot project would remove all equipment from Building 889, decontaminate the facility to unrestricted release levels, and then demolish the building. Reusable equipment would be identified, decontaminated if necessary, and removed from the building for other uses. Non-reusable equipment would be disposed of as waste or be decontaminated for recycling.

The walls, floor, and ceiling of the building would be decontaminated using a combination of decontamination technologies, including spray washing, carbon dioxide pellet blasting, and scabbling. The project decontamination method ultimately used would depend upon hazardous materials and radiological survey results. All decontaminated structural surfaces would be sealed using a two-step process consisting of 1) painting with a tightly adhering non-porous paint, and 2) painting a second coat with a strippable paint that could be easily removed if any contaminant became airborne and resettled on an area that had already been decontaminated.

The building would be demolished, and the foundation and any other structures would be removed. Contamination surveys of the area below the building would be conducted, and any contamination would be removed.

Up to 3 tons of low-level waste consisting of non-reusable equipment and by-products of the scabbling process would be generated. The waste would be placed in containers and moved into an approved storage area. The spray washing decontamination process is expected to generate about 2,500 gallons of low-level mixed waste which would be processed through the Building 374 treatment system. Wastes that would be generated as a result of demolition include approximately:

- 7,088 cu. ft. of transuranic waste from concrete, pipe, duct, and construction materials
- 1,902 cu. ft. of mixed waste from concrete
- 8,816 cu. ft. of solid waste from concrete and construction materials
- 1,641 cu. ft. of structural steel and sheet metal waste that would be available for recycling

Building 777 Room 415 and 416

This pilot project consists of decontamination and removal of equipment within rooms 415 and 416 in Building 777. In addition, the interior of the rooms would be decontaminated for future alternate use. Room 415 is a metallography lab which was used to prepare and analyze samples of plutonium metal. It is approximately 50 feet long and 25 feet wide. A large glovebox, approximately 25 feet long, is located within the room and contains equipment for grinding, polishing, and cutting metal samples. The inside of the glovebox and the equipment in the glovebox are contaminated.

Room 416 was a storage area for metallography equipment. The room measures 40 feet long and 25 feet wide. The equipment in the room will be removed, and the room will be radiologically surveyed. If required, the room will be decontaminated.

Decontamination activities include 1) decontamination and removal of reusable equipment, 2) removal and relocation of hazardous materials from the glovebox, 3) preparation of the glovebox for decontamination, 4) glovebox decontamination, release survey, and dismantling, 5) decontamination of walls, floors, and ceilings, and 6) epoxy seal walls and floor. Spray washing is the preferred method of decontamination; however, other methods such as scabbling and carbon dioxide pellet blasting may also be employed.

The volume of packaged waste generated from this projects is estimated to be 1500 cubic feet. Most of this waste would be low-level, however, a small amount (<100 cubic feet) of transuranic and mixed waste is expected to be generated.

Building 779, Room 152 and 154

Building 779, Room 154 is a laboratory which was used to prepare and analyze samples of hydrated plutonium metal. It is approximately 50 feet long and 20 feet wide. The room contains five gloveboxes which contain furnaces and other metal-treating equipment. Four of the five gloveboxes in Room 154 are heavily contaminated and contain large amounts of contaminated equipment. Room 152, which contains one glovebox, would also be decontaminated.

Activities include 1) decontamination and removal of reusable equipment, 2) removal and relocation of hazardous materials from the glovebox, 3) preparation of the glovebox for decontamination, 4) glovebox decontamination, release survey, and dismantling, 5) decontamination of walls, floors, and ceilings, and 6) epoxy seal walls and floor. Spray washing is the preferred method of decontamination; however, other methods such as strippable coatings, scabbling and carbon dioxide pellet blasting may also be employed.

The volume of packaged waste generated from this projects is estimated to be 3000 cubic feet. Most of this waste would be low-level, however, a significant portion (up to 30 %) of transuranic and mixed waste is expected to be generated.

Categorical Exclusion to be Applied:

B3.10 Small-scale research and development projects and small-scale pilot projects conducted (for generally less than two years) to verify a concept before demonstration actions, performed in an existing structure not requiring major modification.

DOE NEPA REGULATIONS SUBPART D
CATEGORICAL EXCLUSION DETERMINATION - RFFO/CX23A-94
Decontamination and Decommissioning Pilot Projects (Revised)

I have determined that the proposed action meets the requirements for a categorical exclusion as defined in Subpart D of 10 CFR 1021. Therefore, I approve the categorical exclusion of the proposed action from further NEPA review and documentation.

Date: _____

Signature: _____

Mark N. Silverman
Manager, Rocky Flats Field
Office

RFFO Project Sponsor: I have reviewed the project description for this proposal and concur with its accuracy and validity.

Date: _____

Signature: _____

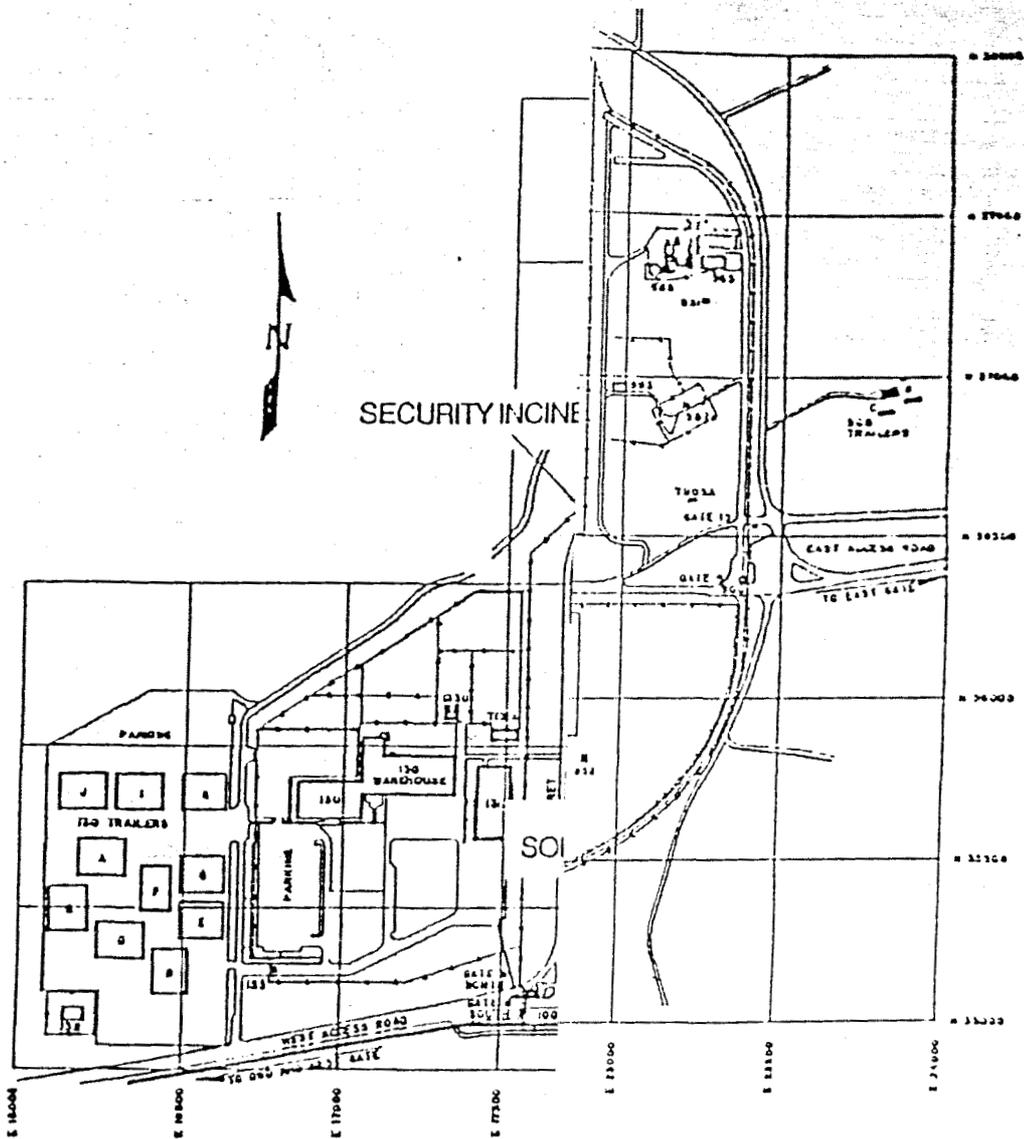
Jessie Roberson
Acting Assistant Manager for
Environmental Restoration

I have reviewed this determination and find that a categorical exclusion is the appropriate level of NEPA documentation.

Date: March 8, 1995

Signature: MPowell

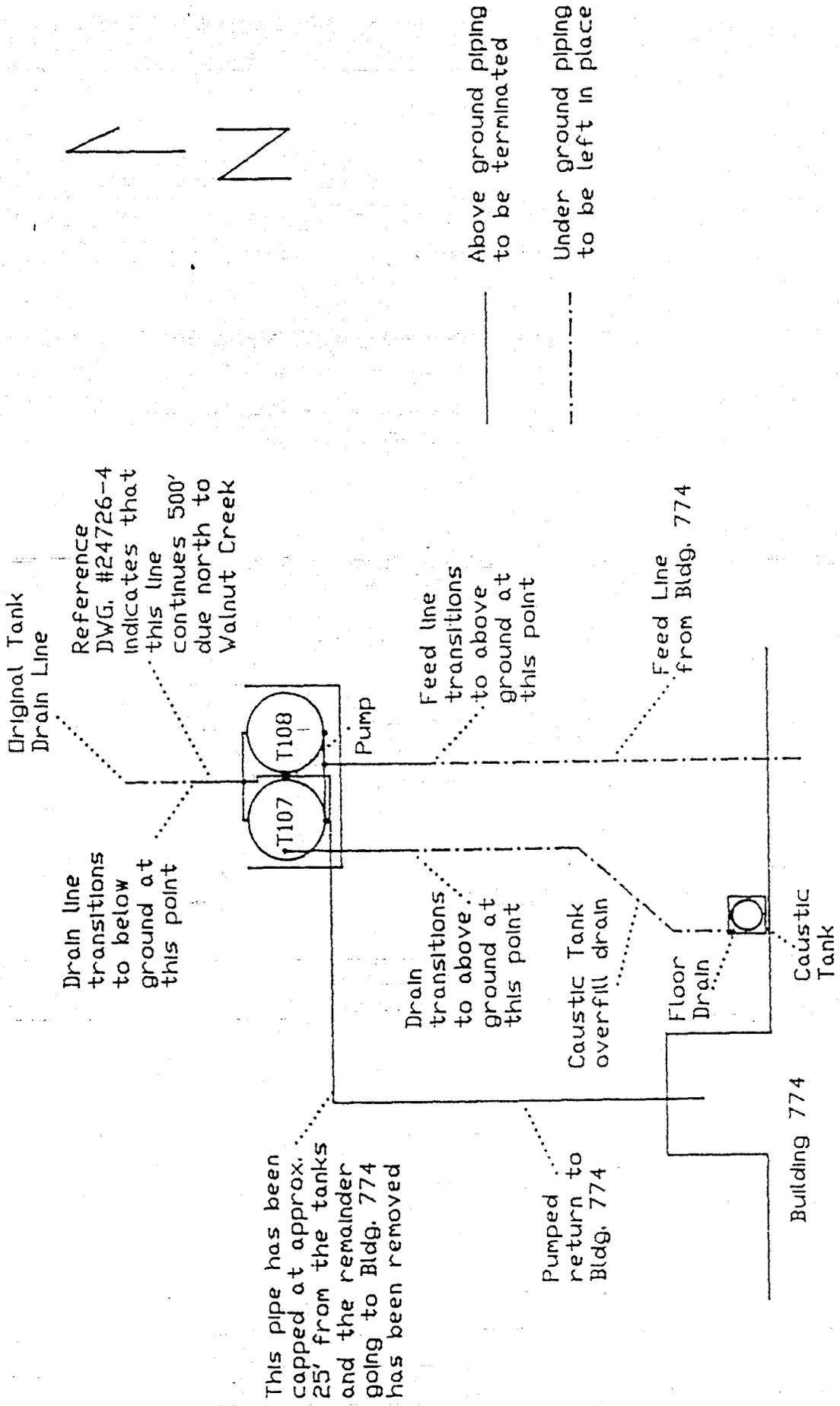
Patricia M. Powell
NEPA Compliance Officer



Rocky Flats Plant
Golden, Colorado

Figure 1

D & D PILOT PROJECTS



This pipe has been capped at approx. 25' from the tanks and the remainder going to Bldg. 774 has been removed

Figure 2 - Pumps and Piping Associated with Tanks 107 & 108