



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

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<http://www.epa.gov/region08>

Ref 8EPR-F

Mr Joseph A. Legare
Assistant Manager for Environment and Stewardship
U S Department of Energy, Rocky Flats Field Office
10808 Highway 93, Unit A
Golden, CO 80403-8200

RE: Approval of the Risk-Based Approach for Polychlorinated Biphenyls (PBS) - Based Painted Concrete

Dear Mr Legare

This letter is to inform you that the United State Environmental Protection Agency, Region 8 (EPA), has received your request dated October 29, 2001, for the risk-based disposition of PCB-tainted concrete which is supported by the following document "Risk-Based Approach for In-Situ Backfill of Polychlorinated Biphenyls (PCB)-Based Painted Concrete" The Agency has reviewed the request and supporting documents and hereby grants approval for risk-based Toxic Substances Control Act (TSCA) disposal under 40 CFR 761 62(c). In this case, TSCA disposal means leaving concrete painted with PCB paint on site at Rocky Flats This decision is consistent with other risk-based disposal decisions approved by EPA. For example, missile silos at the Grand Forks Air Force Base, North Dakota, where a risk analysis showed similar risks from concrete painted with PCB-based paint, were demolished and left in place This approval is subject to the following conditions

1) A dust control process shall be implemented during demolition process to prevent potential contamination of PCBs to the surrounding area The Rocky Flats Cleanup Agreement Standard Operating Protocol for Facility Disposition, dated August 14, 2000, Sections 4.3.2 through 4.4 describes the dust control measures that will be employed by the site during the demolition of concrete structures Those measures will generally include

- Controlled spraying of water to minimize fugitive dust
- Terminating demolition during periods of high wind
- Periodic cleaning of nearby roads

The efficacy of the dust control measures will be monitored by health and safety specialists who will employ personnel air monitors to measure air concentrations of respirable silica

ADMIN RECORD

IA-A-001003

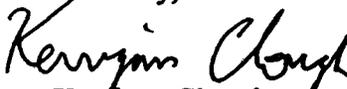
and compare measured values to the occupational exposure limits for silica. This is a standard industry practice. The site's ability to meet the occupational limits for silica during demolition is a strong indicator that effective dust suppression measures are being implemented. The Site's ambient air monitoring system as described in the enclosed document will also be used to evaluate fugitive dust emissions.

2) Where the materials are in contact with shallow ground water, ground water monitoring will be conducted in the down-gradient direction to detect PCBs that may have leached from the materials. Ground water modeling results should be used to determine the optimum location and frequency for monitoring. Ground water monitoring for PCBs will be incorporated into the Integrated Monitoring Plan for Rocky Flats which is updated annually. Specific changes to the IMP for this purpose will be submitted to EPA for approval and will include detailed information such as location of monitoring well(s), analytes, sampling frequency, and detection limits.

The Agency believes that leaving concrete painted with PCB-based paints in the basements of demolished buildings will not pose an unreasonable risk to human health or the environment. The Method of Characteristics (MOC) computer model simulated a worst case scenario for the potential migration of PCBs from the buried concrete. The model predicted that the concentrations of PCB congener 1254 at 5, 10, 20, and 30 feet from the source, are well below concentrations of concern. The use of conservative initial and boundary conditions in the flow field coupled with the very conservative assumption that the PCBs would leach from the paint into ground water at the aqueous solubility limit, and continue to do so at a constant rate over the modeled timeframe all serve to demonstrate that migration of the PCBs will be at a concentration well below that which would present a concern. Finally, it should be noted that the State of Colorado considers this material to be inert.

If you have questions or need any additional information, please call me at (303) 312-6308 or Mark Aguilar at (303) 312-6251.

Sincerely,



Kerigan Clough,
Assistant Regional Administrator
Office of Partnerships and Regulatory
Assistance

cc Dan Bench, EPA
Steve Gunderson, CDPHE
Dave Shelton, K-H



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