



## U.S. Department of Energy

Grand Junction Office  
2597 B 3/4 Road  
Grand Junction, CO 81503

NOV 10 1997

Mr. Joseph H. Holonich, Chief  
High-Level Waste and Uranium Recovery Projects Branch  
Division of Waste Management  
Office of Nuclear Material Safety and Safeguards  
Mail Stop T7J9  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Approval of Remedial Action Design Package Utilizing Supplemental Standards for  
531 South Avenue, (former Public Service Company) Grand Junction, Colorado

Dear Mr. Honolich:

Enclosed are two copies of the Radiologic and Engineering Assessment (REA) for the following location:

GJ-00673-CS                      531 South Ave

The REA has been reviewed and approved by the Department of Energy (DOE) and is being forwarded to the Nuclear Regulatory Commission for their review and approval. The engineering assessment proposes utilization of EPA supplemental standards for an estimated 16 cubic yards of residual radioactive material (RRM), which are commingled with Resource Conservation and Recovery Act (RCRA) listed and Toxic Substance Control Act (TSCA) hazardous wastes. The depth of RRM ranges from 6 to 11 inches.

The area being proposed for supplemental standard is located on the grounds of the former Public Service Company (PSCo) now owned by the city of Grand Junction. This property is the site of the former (PSCo) steam plant and maintenance facility, which was housed in a two story brick building with a basement.

This supplemental standards application addresses two deposits of RRM on this property. An exterior deposit of RRM was left in place because it is commingled with polychlorinated biphenyls (PCBs). An interior deposit of RRM was left in place because it is commingled with volatile organic compounds (VOCs) and PCBs. The PCBs are regulated under (TSCA) while the VOCs are regulated under (RCRA) as characteristic or listed hazardous wastes.

The regulations governing PCB remediation, 40 CFR 761, contain provisions that discourage dilution of PCB-contaminated media. Disposal requirements for materials containing PCB concentrations of 50 ppm or greater may not be circumvented by either accidental or intentional

9711240114 971110  
PDR WASTE  
WM-54                      PDR



11  
NL-64  
WM-54

Mr. Joseph H. Honolich

-2-

dilution—all diluted PCB-contaminated media with a concentration in excess of 2 ppm (the regulatory detection limit) must be treated as if it contained concentrations greater than 50 ppm. The commingled RRM in this application falls under these regulations.

Because a disposal site currently does not exist that will accept RCRA-listed and/or TSCA-regulated PCB waste commingled with RRM, the commingled waste material must be treated to remove the nonradiological contaminants from the RRM. Several treatment technologies may be required to selectively remove the VOCs and the PCBs from the RRM. Upon approval by EPA and CDPHE, the nonradiologic wastes can then be disposed of as appropriate. Treatment technologies and suitable treatment and disposal facilities must be identified.

Several methods exist for treating PCB-contaminated soil, including incineration, soil washing with solvents, thermal separation, and PCB dechlorination. Although incineration has been demonstrated to be the most practical method for treating PCB-contaminated soil, several problems would have to be overcome before this method can be applied to the waste on this property.

Several commercial vendors have expressed interest in using their treatment technology to treat the commingled waste onsite. All of these vendors stated that they would have to first conduct treatability studies on the material on a bench or pilot scale before cost and schedule estimates could be developed. Prior to conducting onsite treatment to remove PCBs, DOE would have to obtain a TSCA permit from EPA. Typically, a one year lead time is required to obtain a TSCA permit.

Additional permits and treatability studies may be required to treat the RCRA-regulated VOC waste components. Treatment of the listed waste would require a consent agreement between DOE and CDPHE. DOE and CDPHE attempted to negotiate a consent agreement for the treatment of characteristic waste, but were unable to reach consensus on the terms of the agreement. The DOE envisions that a consent agreement for listed waste will be more difficult to negotiate. The Permit-by Rule provisions being used to treat characteristic hazardous wastes do not apply to the listed wastes and PCB.

The hazardous waste component of the deposit was not generated by DOE, and DOE believes it does not have the authority to manage the hazardous waste under UMTRCA. Additionally, if the material is excavated by DOE and not successfully treated, DOE would probably inherit the responsibility for its ultimate disposal.

Although treatment methods such as thermal desorption are commercially available, they are not always successful on larger scale operations involving clayey soils such as are associated with the hazardous wastes at the PSCo property. Also, CDPHE's past interpretation of the "contained-in" policy required treatment of the material to nondetectable level. This treatment standards is more restrictive than normal Land Disposal Restrictions standards.

Mr. Joseph H. Honolich

-3-

The DOE has evaluated three possible remedial action alternatives and the associated health risks, and has determined that no remediation is the best alternative. The Health Risk Analysis suggest that there are no identifiable significant health risks if supplemental standards are applied.

This proposed course of action has been discussed with Jim Hams, CDPHE, Grand Junction Office, and the property owner, the City of Grand Junction. Comments were received from the property owner, who opposes the use of supplemental standards and desires that DOE remove all RRM from the property.

The Owner Notification Checklist and copies of the characterization results were presented to representatives of the City of Grand Junction. The City of Grand Junction opposes the application of supplemental standards on the subject property because this property was acquired as part of the South Downtown Redevelopment Project, and the City intends to use the building for community purposes. Future uses are anticipated to result in long durations of human occupation. The City states that the RRM that will remain in place poses a health hazard because the contamination is located in surface areas without controls, and a high water table created a potential for spreading the RRM. The City feels that application of supplemental standards might complicate or prevent the conversion of the building and property to public use, with an attendant loss of long-term social and economic benefit, and will jeopardize the South Downtown Redevelopment Project.

The response of the City of Grand Junction does not address the nonradiological hazardous materials that are commingled with all remaining RRM. Because of the regulatory uncertainties and high cost of removing and disposing of the commingled waste on this property, DOE should not attempt to remove and dispose of the commingled waste. DOE is not the responsible party for the nonradiological component of the commingled waste and the DOE believes, on the basis of past legal advice, that DOE does not have the authority to assume the risk or liability for this waste. The RRM in the waste is shown to not present a risk to the public under reasonable use scenarios. If the City decides to redevelop the building for public use, the City has the option of either placing the commingled waste in temporary storage containers or placing a cap over the deposits of commingled waste.

The DOE also has agreed to prepare a database to track all deposits left behind on vicinity properties through the application of supplemental standards. The end user of this database appears to be CDPHE, who will use it to control RRM from being improperly disturbed or disposed.

The justification checklists, property condition description, considerations, cost application breakdown, justification and the property owner comments are included in the REA. In summary, the commingled RRM that would remain on the site under Alternatives 1-No Remediation/Supplemental Standards will not result in unacceptable health risks. Also, disposal and treatment options for these commingled wastes either do not exist on a commercial scale or



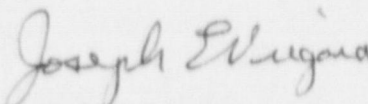
Mr. Joseph H. Honolich

-4-

are inordinately and unpredictably expensive. For these reasons, the DOE recommends that no remediation be conducted on the remaining RRM. Although implementation of Alternative 2-Complete Remediation would result in meeting applicable standards, there are no significant health risks at present from the RRM left in place. This property is an industrial site and future land use will not likely change. Also, the \$143,500 subcontract cost would be inordinately expensive relative to the minor risks of leaving 16 cubic yards of radiologically contaminated material in place. The supplemental standards application is being requested because remedial action would result in an estimated cost which is unreasonably high relative to the long-term health benefits (Criteria C) and because the cost of remedial action for cleanup of a building is unreasonably high relative to the benefits (Criteria D).

The GJO would appreciate timely review of this application because all UMTRA Project activities are scheduled to end this fiscal year. If you have any questions or require any additional information, please contact John Elmer of MACTEC-ERS at 970-248-6356 or myself at 970-248-6006.

Sincerely,



Joseph E. Virgona  
Project Manager

Enclosures (2)

cc w/o enclosures:

- J. Deckler, CDPHE/Denver
- J. Hams, CDPHE/Grand Junction
- F. Bosiljerac, DOE-AL, ERD/UMTRA
- J. Elmer, MACTEC-ERS

m:jev\corres\1197-01.wp6