

Supplement Analysis and Determination for the Proposed Characterization for Disposal of Contact-Handled Transuranic Waste at the Waste Isolation Pilot Plant (WIPP) (DOE/EIS-0200-SA-01)

1.0 Introduction

In the *Record of Decision for the Department of Energy's Waste Isolation Pilot Plant Disposal Phase Supplemental Environmental Impact Statement* (63 Fed. Reg. 3623, January 23, 1998), the Department of Energy (DOE) decided to dispose of transuranic (TRU) waste at WIPP after preparing it to meet WIPP's Waste Acceptance Criteria (WAC). In the *Record of Decision for the Department of Energy's Waste Management Program: Treatment and Storage of Transuranic Waste* (63 Fed. Reg. 3629, January 23, 1998), DOE decided (with one exception) to prepare TRU waste to meet the WIPP WAC at the sites where it is currently stored or will be generated prior to shipment to WIPP for disposal. Together, these coordinated Records of Decision made the "how to prepare" and "where to prepare" decisions for TRU waste throughout the DOE complex that DOE intends to dispose of at WIPP.

DOE is proposing to revise the "where to prepare" decision that was based on the *Waste Management Programmatic Environmental Impact Statement*, DOE/EIS-0200-F, May 1997 (WM PEIS). The proposed change, as described more fully below, is to create a centralized capability at WIPP that would be used to characterize annually up to 1,250 cubic meters of DOE's contact-handled transuranic (CH-TRU) waste out of about 7,000 cubic meters expected to be received annually for disposal at WIPP.¹ The centralized characterization capability at WIPP would consist of equipment that would be located in existing buildings at the WIPP site (the TRUPACT Maintenance Facility and the Waste Handling Building). In addition, DOE is proposing to increase the time that CH-TRU waste may be stored above-ground from 60 days to one year and to increase the total above ground storage capacity by 25 percent, to a maximum of 152 cubic meters (730 drum equivalents). This analysis considers whether a supplement to the WM PEIS is required before DOE could make a decision on whether to characterize CH-TRU waste at WIPP.

2.0 Background

The primary benefits of centralized disposal characterization at WIPP would be to expedite the removal of waste from, and minimize expenditures at, sites with smaller inventories of CH-TRU waste, where establishing disposal characterization programs would not be practical or cost effective. Disposal characterization capability at WIPP also could be used to speed removal of CH-TRU wastes from sites with larger inventories, such as the Rocky Flats Environmental Technology Site in Colorado, the Idaho National Engineering and Environmental Laboratory, the Los Alamos National Laboratory in New Mexico, the Hanford Site in Washington, and the Savannah River Site in South Carolina. Disposal characterization capability at WIPP would assist these sites in meeting compliance agreements, closure schedules, or other waste management needs. The proposed disposal characterization capability at WIPP, however, would not eliminate the need for such sites to characterize most of their own wastes, as WIPP's annual

¹ CH-TRU waste may be shipped to WIPP in drums, standard waste boxes, or drum overpacks; 1,250 cubic meters is the equivalent of about 6,000 drums (4.8 drums/cubic meter).



capacity to characterize waste for disposal would be limited to 1,250 cubic meters. Accordingly, these sites would fully characterize most of their waste and would maintain waste characterization programs that must be approved by the Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED).

Throughout this Supplement Analysis, the phrases "characterize waste for transportation" and "characterize waste for disposal" are used to define separate aspects of the waste characterization process. The phrase "characterize waste for transportation" means all activities that are necessary to prepare TRU waste to meet the transportation requirements for shipping waste to WIPP. It includes collecting, organizing, supplementing, and evaluating information about the process that generated the waste, the materials used in the process, the radioactive and hazardous constituents in the waste, and any sampling and analysis of the waste. This information, referred to in the aggregate as "acceptable knowledge," is a critical aspect of characterizing waste for purposes of both transportation and disposal.

Depending on the physical form of the waste and the state of knowledge about the constituents of the waste, the activities needed to characterize waste for transportation could vary. If the knowledge concerning the waste is sufficient to ensure that the waste as packaged meets transportation requirements, that knowledge alone (i.e., acceptable knowledge) would be sufficient to characterize the waste for transportation. If, however, there were uncertainty about the contents of the waste, characterization for transportation could require some or all of the following activities: radiography, radioassay, headspace gas sampling, and visual examination.

Characterization for transportation to WIPP also may require that the physical or chemical form of the waste be altered in order to make it suitable for transportation. This could include treatment activities that alter the form of the waste, such as solidifying liquids and neutralizing reactive wastes. Other activities that could be used to make the waste suitable for transportation include the removal of items prohibited from being shipped in containers licensed by the Nuclear Regulatory Commission, or repackaging of waste to meet thermal power limitations. Characterizing waste for transportation to WIPP and would continue to be done at the generator sites under a quality assurance program approved by DOE's Carlsbad Field Office (CBFO).

In contrast, the phrase "characterize waste for disposal" refers to the characterization required by WIPP's Hazardous Waste Facility Permit and the EPA Compliance Certification prior to disposal in WIPP. Under this permit, this characterization includes radioassay, radiography, and headspace gas sampling of waste containers, and, for a statistically selected number of containers, includes visual examination to confirm the results of radiography. Collectively, the activities involved in characterizing waste for transportation and characterizing waste for disposal comprise all of the activities necessary to prepare TRU waste to meet the WAC, as defined in the WM PEIS Record of Decision for TRU waste. Characterizing waste for disposal also would continue to be performed as part of a program approved by the DOE's CBFO, NMED, and EPA.

It is important to note that the same type of characterization may be performed both for transportation and for disposal, but for different reasons. For example, headspace gas sampling for transportation is done to determine the presence of flammable gases, whereas headspace gas sampling for disposal is done to quantify the concentrations of volatile organic compounds and

to confirm the knowledge used to characterize the waste stream. The main differences between characterizing waste for transportation and for disposal are summarized as follows:

- (a) Acceptable knowledge can be used to minimize the number of activities needed to characterize waste for transportation. Characterization for transportation is aimed at identifying the overall radiological activity, the proper chemical identification for shipping, and physical properties of the waste.
- (b) The requirements for characterization for disposal are more stringent than for characterization for transportation. Characterization for disposal must identify the individual radioisotopes and hazardous chemical components of the waste with a specified degree of accuracy to satisfy the EPA Certification and NMED permit requirements for disposal. The WIPP Hazardous Waste Facility Permit requires that acceptable knowledge be confirmed by analytical methods.

In the WM PEIS, characterization for transportation and characterization for disposal were not addressed separately because they were proposed to be carried out at the generator sites prior to the waste being transported to the WIPP for disposal. Thus, previous National Environmental Policy Act (NEPA) analyses assumed that TRU waste would be characterized fully to meet the WAC before it was transported.

3.0 Proposed Action

Under DOE's proposal, the Department would continue to prepare all of its CH-TRU waste for transportation to WIPP at the generator sites. The Department, however, would then send some CH-TRU waste that has been characterized for transportation to WIPP before characterizing it for disposal. Personnel at WIPP would perform the characterization required before disposal of the CH-TRU waste. Separate regulations govern the transportation and disposal of CH-TRU waste. This proposal would involve only a small portion of DOE's overall TRU waste inventory. No remote-handled TRU waste will be characterized at WIPP, and most of DOE's CH-TRU waste will be fully characterized (i.e., characterized for both transportation and disposal) at the larger generator sites where it is stored before it is shipped to WIPP and placed directly in the repository.

Under this proposal, the disposal characterization activities that DOE would perform at WIPP could include: radioassay of waste containers to determine their radionuclide content, radiography to confirm the form of the waste and to verify the absence of prohibited items, and headspace gas sampling and analysis to quantify the concentrations of volatile organic compounds and to confirm the knowledge used to characterize the waste stream. Also under this proposal, DOE would perform visual examination of a statistically selected number of waste containers to confirm the results of radiography. As an alternative to visual examination, DOE intends to ask NMED to approve a permit modification that would allow CBFO to perform computed tomography on a randomly selected number of waste containers; CBFO would only open containers if an item prohibited from disposal in WIPP (prohibited item) were discovered.

DOE's ability to implement its proposal to perform disposal characterization on some CH-TRU waste at WIPP is contingent upon NMED approving a modification of WIPP's Hazardous Waste

Facility Permit. The modification DOE plans to propose would specify the activities that DOE would perform at WIPP to characterize waste for disposal. NMED might approve, deny, or modify DOE's proposal. Accordingly, DOE cannot specify at this time the exact set of waste characterization activities that it might be required to perform at WIPP; however, any characterization activities that NMED may require would be bounded by the broad array of activities and impacts that DOE already has analyzed under its prior NEPA reviews.

The WIPP Hazardous Waste Facility Permit requires that certain types of homogeneous wastes (e.g., solidified sludges and soils) must be representatively core sampled and the samples chemically analyzed. These types of homogeneous wastes have not been identified at the sites with smaller inventories of CH-TRU waste. DOE is not proposing to conduct core sampling and chemical analysis of sludges and soils at WIPP; therefore, these types of wastes would not be sent to WIPP for characterization.

The equipment that CBFO would use at WIPP to characterize some of DOE's CH-TRU waste for disposal would be located inside existing buildings at WIPP. Non-intrusive characterization activities, such as radiography and radioassay, would be located inside the TRUPACT Maintenance Facility adjacent to the Waste Handling Building. The offices currently located in that building would be removed. Intrusive characterization activities such as headspace gas sampling and glovebox operations would be located in the Waste Handling Building at WIPP. Emissions from intrusive operations would be filtered through High Efficiency Particulate Air (HEPA) filters at least once and then fed into the Waste Handling Building's exhaust system where they would be HEPA filtered again before being released to the atmosphere.

The proposed disposal characterization capability at WIPP would have the ability to characterize approximately 4,000 to 6,000 drum volume equivalents (830 to 1,250 cubic meters) of waste annually. This would equate to about two or three shipments to WIPP per week that would be characterized there for disposal. Overall, DOE expects to begin receiving up to 17 shipments per week within the next two years. As noted above, most of this waste will have been fully characterized by the sites where it came from and would be ready for disposal. It is anticipated that an annual throughput of 1,250 cubic meters would not be maintained through the 35-year period of WIPP operation. This level of disposal characterization capacity would be used in the earlier years to assist sites in meeting compliance deadlines and closure schedules.

In addition, DOE is proposing to increase the time that CH-TRU waste may be stored above ground from 60 days to one year and to increase the total above-ground storage capacity by 25 percent, from the current 122 cubic meters to 152 cubic meters. (DOE is proposing that the increased storage capacity be in the Waste Handling Building where storage capacity would increase from 77 cubic meters to 107 cubic meters). This would allow DOE to accumulate the necessary amount of waste to demonstrate the disposal characterization program in order to obtain approval of the program from the EPA and NMED. The increased storage time also would allow DOE, if needed, to store wastes during any delay in disposal operations, or, in the unlikely event a prohibited item were received, to store the item until it can be shipped offsite or otherwise disposed of.

DOE submitted an application to NMED for a modification of the WIPP Hazardous Waste Facility Permit on July 21, 2000. DOE withdrew this permit modification request on September 29, 2000, after the close of the public comment period on September 26, 2000, and

after discussions with NMED staff. DOE plans to submit a revised permit modification application that addresses concerns raised by NMED and the public regarding the July 21, 2000, permit modification request.

In the revised permit modification request:

- (1) DOE would substitute computed tomography for visual examination of waste containers so that they would not need to be opened at WIPP except in the unlikely event that a prohibited item is discovered.
- (2) DOE would support the need for increased storage capacity of 25 percent with a time and motion study prepared by the Sandia National Laboratory.
- (3) DOE would request increased time for above-ground waste storage from 60 days to one year.

DOE has considered the comments received on the July 21, 2000, permit modification request and concludes that none of the concerns expressed presents significant new circumstances or information relevant to environmental concerns that were not addressed in prior NEPA analyses. For example, DOE is proposing an alternative to opening waste containers at WIPP for visual examination, but NMED may not approve that alternative. DOE has considered the impacts of opening containers of TRU waste at WIPP in both the *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement, September 1997 (WIPP SEIS-II)* and the WM PEIS. Since waste containers would be opened only in gloveboxes, any contamination from opening drums would be confined to the gloveboxes, and the WIPP facility itself would not be contaminated. Accordingly, if DOE is required to open waste containers, the impacts of such activities have been considered under NEPA.

DOE would not begin to characterize waste at WIPP unless and until NMED approves the permit modification request. Prior to approval of the permit modification request, DOE would begin to accelerate facility upgrades needed at WIPP, such as installing an air lock, an additional fire wall, additional radiation monitors, and spill coating on the uncoated portion of the concrete floor in the TRUPACT Maintenance Facility. DOE may also begin procuring characterization equipment and contracting with vendors so it can begin training equipment operators and writing procedures for the proposed operations. As stated previously, what, if any, particular waste characterization procedures will occur at WIPP depends on NMED's decision concerning the revised permit modification request DOE plans to submit.

4.0 Rationale for the Proposed Action

As stated above, the primary purpose of the centralized disposal characterization capability at WIPP would be to expedite removal of waste from, and minimize expenditures at, sites with smaller inventories of CH-TRU waste, where establishing disposal characterization programs would not be practical or cost effective. A centralized characterization capability at WIPP also would allow DOE to characterize for disposal some waste from sites with large inventories, thereby speeding up removal of wastes from these sites. WIPP's characterization capability would not eliminate the need for sites with larger inventories to characterize most of their own waste, as WIPP's annual capacity to characterize waste would be limited to 1,250 cubic meters.

Establishing a centralized disposal characterization program at WIPP would enable EPA and NMED to use their staff resources more efficiently because they would have fewer waste disposal characterization programs to review and approve than would be the case if DOE established such programs at all sites storing TRU waste.

An adequate program for characterizing TRU waste for disposal to meet the WAC is expensive to establish and operate. Obtaining and installing waste characterization equipment is only part of the cost of such a program. In addition, personnel training and the development of procedures for characterization are expensive, time consuming, and require extensive coordination to ensure that provisions of the WIPP permit and EPA's certification are being met. Adding to the cost of a disposal characterization program at the generator sites are the internal audits by the CBFO and approval of the program by EPA and NMED. The EPA and NMED must approve a site's disposal characterization program before waste characterized at that site can be disposed of in WIPP.

5.0 Waste Volumes

The impacts of preparing (including characterizing) waste for disposal depend on the volume of waste to be characterized and treated. The WM PEIS analyzed the volume of CH-TRU waste projected to be generated over 20 years, a total of 113,592 cubic meters. The CH-TRU waste inventory currently projected to be disposed of at WIPP is 106,387 cubic meters.² DOE's recent projection of the total complex-wide CH-TRU waste volume is less than the Department's prior projections.

6.0 Prohibited Items

A prohibited item is one that is not eligible for disposal in WIPP. The receipt of a prohibited item at WIPP is highly unlikely because quality assurance programs for characterization for transportation at the generator sites effectively ensure that prohibited items are not shipped to WIPP. DOE's Office of General Counsel is working with CBFO to revise the standard Memorandum of Agreement between CBFO and generator sites that would clarify the obligations of the generator sites regarding the management of prohibited items. If a prohibited item were found in the waste shipped to WIPP for disposal characterization, it would be removed from the waste container (removal would be done inside of a glovebox) and DOE would return the item to the generator site; transport the item to an approved waste management facility; or treat the prohibited item in order to render it acceptable for disposal in WIPP. DOE expects that many of the items that would otherwise be prohibited from disposal in WIPP could be made acceptable for disposal by simple processes. Processes that were analyzed in the WM PEIS that could be conducted with the equipment DOE would install at WIPP include solidification or absorption of liquids, opening sealed containers greater than four liters in volume, and puncturing aerosol containers that might contain compressed gases. All of these activities were evaluated in the WM PEIS.

² National TRU Waste Management Plan (Draft), DOE/NTP-96-1204, December 2000.

7.0 The Proposed Action Compared to the Centralized Alternative Analyzed in the WM PEIS

The WM PEIS analyzed the impacts of six alternatives for treating TRU wastes (which included characterization for transportation and disposal). These alternatives are the no-action alternative, a decentralized alternative, three regionalized alternatives, and a centralized alternative.

This discussion compares relevant activities and impacts of the proposed action with those of the Centralized Alternative for treatment of TRU waste examined in the WM PEIS. The Centralized Alternative analyzed the impacts of characterizing CH-TRU waste for transportation and disposal at the sites where it is stored and shipping it to WIPP for treatment in a centralized thermal treatment unit (an incinerator) to meet the land disposal requirements of the Resource Conservation and Recovery Act (RCRA).

The relevant activities and impacts of DOE's proposed action (i.e., installing and operating equipment at WIPP to characterize some of DOE's CH-TRU waste for disposal) are encompassed within the activities and impacts of the Centralized Alternative analyzed in the WM PEIS. However, the impacts of the activities of the proposed action would be much smaller than the impacts of the Centralized Alternative evaluated in the WM PEIS for two reasons. First, the Centralized Alternative assumed that virtually all of DOE's CH-TRU would be treated at WIPP. The characterization equipment that DOE has proposed to locate at WIPP would characterize only a small portion of DOE's projected inventory of CH-TRU waste. Second, the Centralized Alternative analyzed in the WM PEIS assumed that the centralized facility at WIPP would treat CH-TRU waste by incineration. The characterization equipment DOE would install in existing buildings at WIPP pursuant to this proposal would only characterize and, as needed, repackage CH-TRU waste; it would not incinerate or thermally treat any TRU waste. These two differences have the effect of making the potential environmental impacts of disposal characterization at WIPP significantly less than the impacts of the Centralized Alternative analyzed in WM PEIS.

7.1 Characterization at the Waste Generator Sites

Under the Centralized Alternative in the WM PEIS, generator sites would characterize waste not only for transportation, but also for disposal to meet the WAC. Because, under the proposed action, those DOE sites sending waste to WIPP to be characterized for disposal would only have to characterize waste for transportation, the resulting impacts at those sites would be smaller than under the Centralized Alternative in the WM PEIS.

7.2 Transportation of CH-TRU Waste to WIPP

The shipment by truck of CH-TRU waste to WIPP for incineration was analyzed as part of the WM PEIS's Centralized Alternative. The environmental impacts posed by transportation of CH-TRU waste to WIPP would be lower for the proposed action than for the WM PEIS Centralized Alternative. The Centralized Alternative analyzed the impacts of about 800 more truckloads of waste than DOE now expects to ship to WIPP based on a full shipment of 42 fifty-five gallon drums, or about 8.7 cubic meters per truckload.

The Centralized Alternative, however, did not examine the impacts of return shipments to the generator sites that could occur in the unlikely event that prohibited items were discovered in waste sent to WIPP for disposal characterization; the impacts of returning shipments to the generator sites were analyzed in the WIPP SEIS-II.

7.3 Waste Characterization for Disposal at WIPP

7.3.1 Impacts of Routine Operations

The WM PEIS's Centralized Alternative examined the impacts of incineration of CH-TRU waste at WIPP, which might have been needed to meet RCRA's land disposal restrictions if amendments to the WIPP Land Withdrawal Act had not eliminated this requirement. Incineration would have had a greater impact on off-site populations and non-involved workers than the proposed disposal characterization activities at WIPP because waste incineration would have had greater potential for release of airborne contaminants from routine operations than would the proposed characterization activities at WIPP. However, the impacts of either action would be small. The impacts to involved workers from the proposed action would be comparable to the impacts of the WM PEIS's Centralized Alternative because physical operations hazards posed to involved workers during routine operations would be similar.

7.3.2 Storage and Handling Accident Impacts

The potential impacts of storage and handling accidents for the proposed action would be comparable to the storage and handling accident impacts identified in the WM PEIS's Centralized Alternative, which incorporates the analysis of storage and handling accidents at generator sites considered in the WIPP SEIS-II. Handling accidents evaluated in the WM PEIS include drum breach, which could happen during waste handling at WIPP. The bounding storage accidents evaluated in the WIPP SEIS-II included a drum spill, drum rupture and fire, and a "beyond design basis event" that results in collapse of the storage building. The WM PEIS assumed that wastes would be stored at the generator sites for up to 10 years. Under the proposed action, however, waste storage at WIPP would be limited to one year. Based on the reduction of storage time under the proposed action and therefore the reduced probability of an accident, the potential for impacts from storage and handling accidents would be significantly less than from the storage accidents evaluated in the WM PEIS and WIPP SEIS-II.

7.3.3 Treatment Accident Impact

The WM PEIS's analysis of treatment accidents at WIPP evaluated accident scenarios involving incineration. Accidents at an incineration facility generally would be more severe than any accident involving the proposed characterization activities because of the greater amount of energy imparted to waste components during incineration. Also, the potential release of ash and gases from an incinerator (e.g., nitrogen dioxide) would not be possible under the proposed action of characterizing waste at WIPP because even the most extreme characterization processes (e.g., solidifying liquids, opening sealed containers greater than four liters in volume, and puncturing containers that might contain compressed gases) would not chemically break down waste components or impart energy to mobilize them.

7.3.4 Air Quality Impacts

The analysis of the WM PEIS's Centralized Alternative found that incineration of CH-TRU waste at WIPP could result in elevated emissions of nitrogen dioxide. Because the proposed disposal characterization of waste at WIPP would not involve incineration, it would not produce nitrogen dioxide, which is not normally present in TRU waste.

The WIPP WAC is designed to prevent the build up of any methane or hydrogen that might be in the waste. Therefore, only very small amounts of methane or hydrogen, if any, would be released in the gloveboxes if drums were opened and would result in only extremely low concentration increases in ambient air.

The WM PEIS analysis also found that the incineration of CH-TRU waste at WIPP could result in elevated emissions of particulates and exceed applicable standards for air emissions of radionuclides. However, the proposed action does not involve incineration, and emissions from any intrusive disposal characterization activities would be HEPA filtered at least twice to remove radioactive and other particulates. Therefore, emissions from the proposed action would be much lower than the emissions from the incineration unit analyzed as part of the WM PEIS's Centralized Alternative and would be well below applicable standards.

7.3.5 Water Use

Establishing a disposal characterization program at WIPP would not appreciably increase water usage at the WIPP facility. No water would be used in the waste characterization processes, fewer than 20 new employees would be required to operate the new facilities, and no construction of new treatment facilities (which accounts for most of the increased water use estimated in the WM PEIS) would occur. Currently there are approximately 900 DOE contractor employees at the WIPP. The WM PEIS's Centralized Alternative estimated that there would be an increase of approximately 4,000 new jobs in regional employment to support the treatment facility assumed in the Centralized Alternative. Thus, the increased water usage associated with 20 new employees would be within the scope of the impacts identified in the WM PEIS's analysis of the Centralized Alternative, and within the current design capacity of WIPP's water system.

7.3.6 Ecological and Cultural Resources

Because the proposed action would locate the characterization processes within existing structures on the WIPP site, there would be no impacts to plant or animal species or cultural resources from site clearing and construction activities.

The WM PEIS analysis found that treatment facility emissions would have no effect on ecological resources. Since the proposed action would not involve incineration and the associated emissions would be much lower, the proposed action would also have no effect on ecological resources.

7.3.7 Environmental Justice

The WM PEIS assumed thermal treatment in the Centralized Alternative at WIPP. Because the proposed action does not involve thermal treatment, the impacts to minority or low-income populations would be less than those analyzed in the Centralized Alternative, which DOE concluded would not pose any high and adverse impacts on the population as a whole. There are no special circumstances in the proposed action that would result in any disproportionately high and adverse impacts to minority or low income populations.

7.3.8 Economics, Population, Land Use, Infrastructure

Because the disposal characterization equipment at WIPP would be located inside existing buildings, the costs of construction and the need for additional construction workers would be minimized. There would be no land use impacts, and infrastructure impacts would be less than those estimated by the WM PEIS Centralized Alternative analysis because only about 20 new workers would be needed to conduct the proposed disposal characterization activities at the WIPP site versus about 4,000 new workers identified in the WM PEIS Centralized Alternative.

7.3.9 Cumulative Impacts

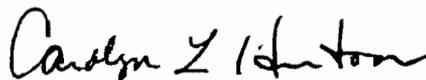
The proposed action would add fewer cumulative impacts than the WM PEIS Centralized Alternative. The cumulative radionuclide releases, other air emissions, land usage impacts, water demand, demand for waste water treatment capacity, and employment at WIPP would all be lower than those estimated for the WM PEIS Centralized Alternative. This is due to the less intensive processes that would be employed, the use of existing facilities to house waste characterization equipment, and the small increase in WIPP's workforce needed to characterize waste. In particular, wastewater treatment capacity would not have to be expanded and existing community infrastructure and institutions would not be materially affected by increased employment.

8.0 Determination

The results of this Supplement Analysis indicate that the activities and environmental impacts associated with the proposed action of characterizing for disposal some CH-TRU waste at WIPP are encompassed within those activities and impacts analyzed under the Centralized Alternative of the WM PEIS or under WIPP SEIS-II. On this basis, DOE has determined that performing characterization for disposal activities at WIPP would not constitute a substantial change in actions previously analyzed and would not constitute significant new circumstances or information relevant to environmental concerns and bearing on the previously analyzed action or its impacts. Therefore, DOE does not need to undertake additional NEPA analyses.

Implementation of any Record of Decision issued pursuant to this Supplement Analysis would be contingent upon approval by NMED of a modification to WIPP's Hazardous Waste Facility Permit and NMED's approval of WIPP's waste disposal characterization program.

Approved in Washington, D.C., on this ¹¹19 day of December 2000.



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