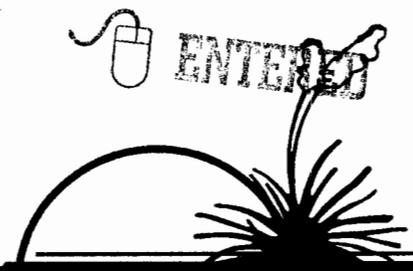


CARD

Citizens For Alternatives To Radioactive Dumping

144 Harvard SE, Albuquerque, New Mexico 87106 • (505) 266-2663

www.cardnm.org



September 27, 2001

Steve Zappe
New Mexico Environment Department
2905 East Rodeo Park Drive, Building E
Santa Fe, NM 87505-6303



Dear Steve:

Enclosed, please find hard copy of our comments on the CCF. Note that I didn't have time to proof the faxed copy other than doing a spell check when I sent it earlier today. I was sorry to find numerous grammatical errors when I did read it over! This copy is corrected and is therefore much easier to read. Please use this instead of the faxed copy.

Sincerely,

Deborah Reade

Enc.

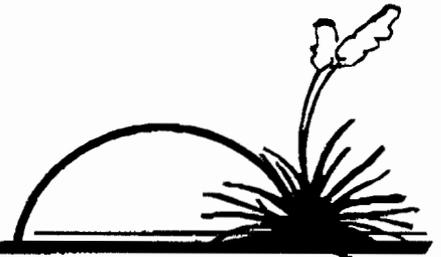


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September 27, 2001

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New Mexico Environment Department
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Santa Fe, NM 87505-6303



**Comments on the Department of Energy's Proposed Class 3 Modification to the
Waste Isolation Pilot Plant Hazardous Waste Operating Permit:
CENTRALIZED CONFIRMATION FACILITY**

I. Introduction

This application is incomplete and not protective of human health and the environment. CARD asks the New Mexico Environment Department (NMED) to deny the application. The application is written in such a confused manner and has so many problems that CARD believes NMED should have the applicants re-write it rather than trying to correct the many problems and inconsistencies themselves. Part, but not of the confusion arises from the applicants' attempt to divide characterization into characterization and confirmation activities. They use the terms (especially characterization) in an inconsistent manner throughout so that what they mean is often not clear. There are numerous other inconsistencies as well. CARD will attempt to point out some of these, but will not be able to give a complete list as they are so numerous.

The Applicants state that they need this modification to save money and to speed-up shipment of waste. Although they often speak as if only small quantity sites would be involved, they do admit in their application and at their information meetings that this modification would apply to large quantity sites as well. CARD believes that both of the applicants' stated reasons for wanting this modification are invalid.

Cost certainly is a consideration for the applicants; it is clearly stated on page 21 of *The National TRU Waste Management Plan, Rev. 2 (The Plan)* that "Characterization of TRU waste accounts for the majority of the cost associated with the TRU Program." During the public meeting in Santa Fe the applicants also stated that it was specifically the permit-required audit program that was driving this increased cost. Therefore, they are attempting to eliminate the audit process and oversight as much as possible which will, CARD believes, lead to a lowering of standards and increased risks for human health and the environment.

The Department of Energy (DOE) has a long history of poor management at its facilities as well as a history of attempting various projects to save money that only led to massively increased costs in the end. We believe this modification is another such project. The applicants stated at the Santa Fe information meeting that this project would NOT eliminate mobile characterization and that they would use that process to characterize waste for shipment that did not have good Acceptable Knowledge (AK). However, since this modification would eliminate all auditing of this process, that characterization would not be certified under the permit and would have to be completely repeated at WIPP. This absurd situation could only be thought up by a government entity that has no need to consider cost (as well as additional potential exposure to workers). To try and describe this process as money-saving is ludicrous. In addition, although the applicants stated that the small quantity sites had non-debris waste, non-debris waste is not addressed under this modification. Therefore, non-debris waste would have to be fully characterized at these sites and the process would have to be audited under the permit or the applicants would have to propose another class 3 modification to add non-debris waste confirmatory testing at WIPP.

During the original permit hearing it was stated by Dr. Channell of the Environmental Evaluation Group (EEG) that record keeping at the generator sites wasn't related to RCRA solid hazardous waste but to radionuclides. (It should be noted that the *WIPP Disposal Phase Final Supplemental Environmental Impact Statement* states on page A-3 that "...only about 80 percent of the CH-TRU waste stream volumes and about 15 percent of the RH-TRU waste stream volumes have reported radionuclide inventories." And this is what the generator sites **did** keep records on.) The DOE relies on various sources of data in their cost and other calculations. Yet *The Plan* (page 27-28) says that these data have a degree of uncertainty that "...causes the estimate of TRU waste in storage and projected to change on a frequent basis..." that "The data are based on approximations or expectations of the waste volumes." and that the data in *The Plan* (used for cost and other estimates) report a volume of TRU waste that is about 50 percent less than the volume reported in the *Integrated Planning, Accountability, and Budgeting System (IPABS)* database (which are also used for cost and other estimates).

The applicants are also assuming in their cost savings calculations, that they will have to do little or no RH-waste confirmatory testing and that most disposal characterization will be based on an Acceptable Knowledge (AK) review. (*Guidance for a Completion of TRU Waste Characterization Costs*.) Even if the AK were excellent for the RH waste, CARD would hope that this is an extremely premature and presumptuous statement as we believe that confirmatory testing is an essential part of the characterization process. (Just because it is difficult to do the necessary testing doesn't mean it should be eliminated if knowledge of the waste is needed for protection of human health and the environment.) Again, DOE has records of even the radionuclide content for only about 15 percent of the RH-WASTE. Dr. Neil of the EEG testified during the initial permit hearing that data aren't available for the hazardous component of the RH-waste. And DOE's own estimates of RH-waste quantities have fluctuated wildly over the years. (*EEG-61: Review of the WIPP Draft Application to Show Compliance with EPA Transuranic Waste Disposal Standards* page 4-2)

It seems clear that DOE is indulging in wishful thinking about not having to do confirmatory testing on the RH-waste since most of this waste appears to have very sketchy AK. They also don't seem to understand how poor the AK is on the hazardous materials in even the contact-handled (CH) debris waste. Once they start working into their older waste, pre-shipment testing will be necessary for a variety of waste streams. (Unless they are able to convince the New Mexico Environment Department (NMED) that it doesn't matter what is received at and disposed in WIPP, in which case there is no need for a permit at all!) Obviously, the Applicants' economic projections are based on inadequate information; in fact they are completely ignoring

the reality of the situation. This, of course, follows right in line with their long history of mismanagement and cost miscalculations.

They also state in the modification application that this modification will expedite disposal of waste. However, because of many of the reasons stated above, this belief is also based on wishful thinking. Certainly, doing the same tests twice on waste will slow the process down at those sites—not speed it up. Also, if the applicants are able to ship enough waste from the small and large quantity sites for confirmation at WIPP to significantly expedite movement of this waste out of those sites, a bottleneck could easily develop at WIPP necessitating either increased storage or an expanded confirmation program at the facility.

In fact, CARD believes that the applicants' primary reasons for wanting this modification are other than those explicitly stated. In fact, they want to eliminate oversight at the generator sites and provide jobs in the Carlsbad area. They will not be eliminating testing at any of their other sites, but will be creating an **additional** testing site at WIPP. CARD has stated for years that once the construction phase at WIPP was completed, local jobs would dry up and this is exactly what has happened. Dr. Triay has made public statements that the only way to increase jobs at WIPP is to change WIPP's mission. Using the facility for scientific research didn't work out and now the applicants are proposing changing the mission from disposal only to treatment, storage and disposal which would increase the number of jobs available.

Finally, in this time of crisis CARD would like to point out something that is not a part of the permitting process directly but which, we believe, should be kept in mind by NMED when reviewing this application. DOE should not be seeking to expand WIPP's mission now, but should instead be working to increase security for transportation from and storage at their generator sites—especially the Los Alamos National Laboratory (LANL) site. It has been reported by EEG and others that there is enough plutonium in a fully-loaded TRUPACT shipment of residue waste to make a bomb. In fact, a thermonuclear reaction is not necessary to cause horrendous damage—simply stealing the residues and blowing them up in a metropolitan area could poison thousands of people. EEG has described sabotage of a WIPP shipment as resulting in some of the worst releases of all accident scenarios, yet security on these shipments is minimal. Now the applicants want us to ship waste to WIPP that has not even been fully tested under the permit. LANL is also extremely vulnerable to attack. Symbolically, it is the mother site of the bomb and again, security is minimal. During exercises at LANL in the past, security personnel have killed other security personnel because they forgot to put blanks in their guns. And do we truly believe that security would or even could shoot down a plane before it got to the laboratory? If TA-55 and other of its major structures are vulnerable to moderate earthquakes, how could they withstand a direct hit from a transcontinental airliner originating at Albuquerque? The WIPP waste itself is not even this protected, but is sitting out in fabric tents vulnerable to the next fire or attack. With this in mind, NMED should reevaluate those RCRA-approved structures because they no longer appear adequate to protect human health and the environment. The applicants should also be reevaluating waste and materials storage at all the generating sites and should be building the proper structures to protect these materials **before** they even think of expanding the program at WIPP.

II. Waste Confirmation at the WIPP Facility

Again, CARD wants to point out that siting waste confirmation activities at WIPP deletes the cornerstone of WIPP's safety program that drums should never be opened at WIPP. Even though the applicants claim on page 17 that drums "...would not be opened at the WIPP facility because the need did not exist to open such containers." the actual reason given at the time was safety. This was so important during the hearing that the applicants convinced NMED that they should deviate from standard industry practices and not do fingerprint testing at WIPP because of the danger of opening the drums. Now, suddenly it is okay to open

the drums, yet the applicants have not shown that anything has changed to make this critical component of the safety program obsolete. They also appear to be expecting NMED to approve the use of computed tomography at WIPP so that Visual Examination (VE) will no longer be used. Their argument seems to be that NMED should consider the use of tomography and therefore the lack of need to open the drums in this application, but not officially. The applicants are in the position of arguing on the one hand that VE in glove boxes is extremely dangerous to workers and therefore the tomography modification is needed, but on the other hand that opening drums in glove boxes at WIPP is completely safe and now will not lead to any contamination of workers or the facility. Since they also plan to open drums to remove prohibited items, however, even the use of computed tomography will not solve the basic problem in their argument.

Moving confirmation activities to WIPP will also delete several levels of oversight. Currently, all characterization programs are audited and the audits are overseen by NMED. This was supposed to make up for the lack of fingerprinting at WIPP. This audit oversight will stop for waste that is sent to WIPP for confirmation. Thus, there will be no fingerprinting and no process to make up for the lack of fingerprinting. Does the applicants' desire to save money and speed up delivery constitute a viable justification for deviating still more from standard practices that insure that the receiving storage, treatment and disposal facility knows what it is receiving?

The applicants argue that NMED oversight activities at the small sites are too expensive and this is one of the main reasons confirmation needs to be concentrated at WIPP. One wonders why they did not make the argument that the mobile vendors be audited and checked by NMED once (like the CCP AK team) instead of at each site. Since there are problems with the private mobile vendors, the applicants could develop this program "in house." It is clear that testing will have to be done anyway on the waste at the small sites because of problems with AK and because there is non-debris waste at the sites.

The applicants have not supplied any risk assessments of confirmation activities with this application. Risk assessments with sensitivity analyses must be supplied as well as modeling for air, water, etc. releases. Risk assessments and modeling also need to be done on worker safety including the process of opening the drums. In their analyze of this modification, DOE gives many justifications on why they don't need to do new risk assessments and can use old risk assessments from the *Waste Management PEIS* or other EIS documents instead. All of these are for other activities under other circumstances; trying to use a risk assessment for incineration and claim that it applies to confirmation activities is totally unacceptable. DOE wants to do a quick sloppy job here to save money, but as stated above, to do this program correctly and safely will be extremely expensive.

The applicants will rely heavily on AK to characterize waste for shipment **and receipt** at WIPP, yet there are numerous problems with AK (see above and previous CARD and EEG submittals of descriptions of continuing problems with AK). The application proposes that a team be used to assemble AK and that they only be checked by NMED at the first site they audit. Yet, the application also states that each site is unique and will therefore have different types of AK documentation and it will be stored in different ways. Certainly, NMED oversight should be required at every site where AK will be used for initial characterization. In addition, currently a percentage of RTR tapes from confirmation activities at the generator sites are reviewed at WIPP. If WIPP becomes the confirmation site, they will essentially be reviewing themselves.

The applicants state on A-51 that AK is used in characterization activities to delineate TRU mixed waste streams, to assess if debris wastes exhibit a toxicity characteristic and to assess if TRU mixed wastes are listed. In fact, however, in various other places throughout the application (including on pages A-14-15, A-

50-51) AK is described as the basis of characterization for shipment (and therefore receipt at WIPP), to describe the physical form of the waste, to exclude prohibited items and to satisfy various other requirements. The applicants seem confused about exactly what AK is supposed to be used for and what the definition of characterization truly is. It is one thing to use AK or process knowledge which can be information on wastes generated from processes **similar** to those generating the waste in question or to use waste knowledge instead of testing when testing is difficult if you are only using it to determine if the waste is mixed or non-mixed or to delineate a waste stream. It is something else to use it instead of testing needed to find out if dangerous items are in the waste before it is received at WIPP.

Obviously, the applicants expect the number of prohibited items received at WIPP to increase since they have changed the language of B-1c (page A-13) from "The following TRU mixed waste are prohibited at the WIPP facility:" to "Prior to accepting TRU mixed waste at WIPP, The Permittees must ensure that there is documented evidence that each waste container does not have the following prohibited items:" They obviously feel that they can no longer guarantee that prohibited items will not be arriving at WIPP. Their increased need for storage and their section on prohibited items also support this.

There is also some confusion about whether the applicants plan to do confirmatory testing of homogeneous solids and soil/gravel wastes at WIPP. Although Attachment B7 refers to confirmatory testing of only debris waste at WIPP, there is language throughout the application (e.g. page A-16) which describe confirmatory testing of these wastes. Sometimes they are described as characterization and sometimes as confirmation. It is sometimes unclear whether these sections apply only to non-WIPP confirmation sites or if WIPP is included and future testing of these wastes would be added to debris testing at WIPP. Again, this seems to arise because of a confusion in the applicants' minds about the difference between characterization and confirmation. If AK is bad for a waste stream at a large quantity site and testing is done to resolve that problem, that testing is both characterization and confirmation. But if the site isn't certified for confirmation, the same testing is characterization—or is it? Because of the artificial differences the applicants are trying to make, confusion reigns! (note that in this description on page A-16, last paragraph, they refer to Section B-3a(1), yet that section is not included here.)

Throughout the application the applicants refer to various forms such as the WSPF and the Characterization Information Summary, that are to be filled out and/or submitted at various times during the characterization/confirmation process. It appears that they are trying to jury-rig old forms to meet this new process. For instance, only part of the WSPF needs to be filled out before shipment to WIPP, then after confirmation the rest is filled out, returned to the generator site and the waste has to sit in storage at WIPP until the generator site signs off on the form. This appears to be a convoluted process that guarantees a bottleneck for processing at WIPP and negates the applicants' stated desire to expedite disposal. Are all the forms in the application and in the characterization/confirmation and disposal process still acceptable under these new procedures or should some of them be changed? Is new information necessary? The applicants do not address this problem in sufficient detail. On page A-20 they describe in the second paragraph a process to compare data to the WSPF. Now, if there is a discrepancy, the waste will not be disposed at WIPP but will also have to sit in storage until the problem is sorted out. Previously the waste was not shipped at all. Again, the applicants are trying to jury-rig old procedures for the new process and are not anticipating all the potential problems. There are probably other instances of this which CARD has not caught.

Confusing language is evident on page A-23, B1 Introduction (is WIPP included under "sites" or are these just generator sites), A-32 at B3-10b(4) (is a Waste Stream Characterization Package also for confirmation, is confirmation part of characterization?), A-32 at B3-11a (refers to **characterized** waste streams, but has

requirements to find TICs, to do testing and analysis, etc. which imply confirmation.), page A-36 at B4-4 (refers to final confirmation at the WIPP Facility but describes homogeneous waste sampling and analysis data. Also, is there some confusion about when the WSPF should be filled out in this paragraph?), page A-37-39 at Table B6-1 (says generator/storage sites should ensure through **characterization** that no prohibited items are in the containers, that all containers should have VOC concentration values reported for the headspace, etc. Again, a confusion between characterization and confirmation and who has responsibility for which), page A-42 at Table B6-3 (This is an AK checklist but they refer to using it to ensure confirmation of hazardous waste), page A-49, attachment B-7 (this attachment only refers to confirmation of debris waste at WIPP but also says any site can be a confirmation site. There appear to be different requirements for confirmation at WIPP from those for other sites. Again, this is confusing. Why is there a need to have a separate and, perhaps, different set of procedures for confirmation at WIPP; shouldn't all confirmation sites be under the same requirements?), page A-88 at M1-1d(2) (There is no description of what to do if a TRUPACT-II has large area contamination on the **outside** of the container. Also, though the first paragraph state that the shipper will have several options for disposition for the internally-contaminated TRUPACT-II, only one is shown).

There is no description anywhere in this application of how this modification will affect people of color and/or low income. Can the activities described in the application be carried out without having a disparate affect on these populations? Since there have been no risk assessments, modeling or review of demographic data, the application is incomplete.

The maps at G-4, M1-1 and M1-7 are not the same scale—or even the same shape. This makes it hard to compare them.

II. and III. Additional Storage Space and Increase in Storage Time

The primary problem with these parts of the application is that under centralized confirmation, waste will be **received** and **stored** at WIPP without complete knowledge of what is in the containers since confirmation will not have been done on these wastestreams. They will be shipped to WIPP after having been characterized only by AK and possibly uncertified testing at the generator/storage sites. NMED stated at the initial permit hearing that they could have no confidence in testing that was not certified under the permit. Therefore they can have no confidence that what is in the containers arriving at WIPP is what is described in the documentation under those procedures. It is clear that, even though the applicants deny it, there will be more prohibited items arriving at WIPP. Since much of this waste will have to be stored under the DAC rules and for other reasons, prohibited items and could be stored for long periods of time at WIPP before they are discovered. Again, there are no risk assessments or modeling on this possibility. A time and motion study by Sandia Labs on increasing storage 25% is not a risk assessment. Old EIS risk assessments for incineration or other activities are not risk assessments. Could flammable and VOC gases build up in the containers, especially if there are sealed inner containers which have not been discovered? Could this be a risk for fire or explosion in the Waste Handling Building? What is the effect of these gases as they are vented? There have been examples of exploding and burning drums in DOE storage in the past often caused by incorrect packaging or incompatible items in the waste (see *EEG-48: An Assessment of the Flammability and Explosion Potential of Transuranic Waste*)

Again, the standard industry practice of fingerprinting waste as it is **received** so that you are sure what is in the containers is not being done here. Now characterization will not even be audited and check by NMED for these wastes. There is no guarantee that unsafe materials will not be stored. Since the waste would be unconfirmed and would be stored for up to a year under the CCF program and since there will be 25% more

waste in storage, it is even more important that all drums be inspected in storage. It is not acceptable for visual inspection of containers not to "...include the center drums of 7-packs and waste containers positioned such that visual observation is precluded due to the arrangement of waste assemblies on facility or containment pallets." (page A-94 at D-1b(1)). Inspection of all containers could find overpressurized containers before they explode or leaking containers that contain prohibited chemicals before they cause serious damage or injury. Since the waste would be unconfirmed and would be stored for up to a year under the CCF program,

Again, the maps at G-4, M1-1 and M1-7 are not the same scale—or even the same shape. This makes it hard to compare them.

IV. Prohibited Items

Again, it is clear that there will be more prohibited items at WIPP under the CCF program for the reasons described above. It is not true, as the applicants state on page A-103, that "[t]hese items are prohibited mainly to comply with the requirements for transportation to the WIPP in the TRUPACT-II and some operational limitations at the site." This makes it sound as if the operational limitations are just an after thought when, in fact, items are prohibited because they can affect the very ability of the facility to contain the waste.

It is stated in this section that liquids will be absorbed by mixing with a commercial absorbant and returned to the original container. Pressurized containers will be vented. CARD contends that this is treatment, not simple "management". The applicants refer to a letter from Jeffrey Denit dated 1993 but does not even quote the letter. 1993 was before the WIPP was permitted and perhaps the letter has been superseded or does not apply to the conditions at WIPP. Treatment is defined as "any method, technique or process...designed to change the physical, chemical or biological character or composition of any hazardous waste so as to...render such waste. .safer to transport, store or dispose of; or amenable for recovery, amenable for storage or reduced in volume." We believe that absorbing liquids, whether hazardous or non hazardous changes the physical and possibly the chemical composition of the waste and makes it safer to store and dispose as well as amenable for storage. Furthermore, the applicants try to use EPA guidance saying that "if a waste is transferred to a new container, more absorbent may be added if the absorbent is being added when the waste is first placed in the new container." However, the application specifically states that the absorbed liquid will be replaced in the old container, so this guidance doesn't apply.

The removal of a prohibited item during confirmation also could be treatment since venting of a gas changes the composition of the waste (debris waste is by its nature a mixture of many different things, removal of one of them changes the composition in a variety of ways.) The EPA letter from Marcia Williams which the applicants try to use to claim that absorption of liquids, removal of items and venting of pressurized containers are not treatment is 16 year old and also doesn't apply since the wastes will not be sent to a treatment, storage or disposal facility, but is already at such a facility.

The definition of these activities as treatment is important since safety hazards are described as greater for workers and the surrounding population for treatment than for non-treatment in the WIPP SEIS-II and other documents. Therefore, risk assessments and modeling are extremely important for this phase of the modification. If the applicants receive their tomography modification from NMED, this is where containers will still be opened and is one of the areas of the characterization and disposal process where the potential for contamination and releases can occur.

It should also be noted that there is a lack of clarity as to the disposition of "problem" drums and prohibited items. Sometimes they are described as being stored, awaiting disposition, sometimes they are to be returned to the generator sites. How they are to be repackaged and returned is not always clear. What is clear, however, is that the result of finding prohibited items at WIPP instead of at the generator sites is that there will be additional shipping back to those sites with additional risk to the public from that "double" shipping.

Sincerely,



Deborah Reade
Research Director
CARD