

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 6  
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**FACSIMILE REQUEST**

and cover sheet

FROM THE **HAZARDOUS WASTE  
MANAGEMENT DIVISION**

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INFORMAL  
DOE COMMENTS ON THE PUBLIC COMMENTS RECEIVED  
ON THE FEDERAL FACILITY COMPLIANCE AGREEMENT (FFCA)  
BETWEEN DOE AND EPA  
DEALING WITH MIXED AND HAZARDOUS WASTE AT THE  
LOS ALAMOS NATIONAL LABORATORY (LANL)  
SUBJECT TO LAND DISPOSAL RESTRICTIONS (LDR)

NMED Comments (Attachment to 8/30/93 letter Espinosa to Dougherty):

General Comment 1. Regulatory Authority Under the Federal Facilities Compliance Act.

DOE's position is that the FFCA as drafted already addresses all of the concerns expressed by NMED in this section of its comments.

EPA and DOE included the language in Section I (Introduction), paragraph 8 (page 4), and also in Section XIX (Enforcement Actions and Reservation of Rights), paragraph 6 (page 35), for the very reasons NMED expresses concern about. There has never been any question about DOE's understanding that, if it is to retain sovereign immunity from fines and penalties for violations of LDR storage prohibitions three years after the effective date of the Federal Facility Compliance Act of 1992 (the Act), it must "submit a site treatment plan to the State of New Mexico or enter into an agreement with the State addressing the treatment of mixed waste at LANL" (Section I.8) and "become subject to a State order to comply with such plan or agreement" (Section XIX.6). (Emphasis added.) DOE again assures EPA that DOE understands that the FFCA between DOE and EPA dealing with LDR waste at LANL does not, and cannot under the law, entitle DOE to sovereign immunity from fines and penalties for violations of LDR storage prohibitions three years after the effective date of the Act.

DOE fully understands that the State of New Mexico is the "proper regulatory authority" to carry out the actions described above with regard to treatment of mixed waste at LANL no later than three years after the effective date of the Act. The FFCA for dealing with LDR wastes at LANL was initiated prior to the passage of the Act and was first discussed in a meeting attended by EPA, DOE, NMED, and the University of California. NMED was represented at that meeting by Gini Nelson and Ed Horst. It was agreed at that meeting, prior to passage of the Act, that neither NMED or the University would be a party. After passage of the Act, considerable thought was given to the necessity of continuing with the FFCA. It was determined by the parties that the provisions and intent of Executive Order 12088 still imposed on them an obligation to put into place a plan for bringing DOE into compliance with LDR storage prohibitions in the interim period before agreement is reached or a plan agreed to

between DOE and NMED as required by the Act. Section XV (Termination), paragraph 3 (page 29), of the draft FFCA provides that the FFCA will terminate when such actions are taken.

General Comment 2. Anti-Deficiency Act.

DOE recommends that no changes be made as a result of these comments. The language on the Anti-Deficiency Act and DOE's obligations to obtain funding to meet its obligations are matters of federal, not state, law. The parties have assured that the language included is consistent with the policies of both EPA and DOE.

DOE understands that the ability of NMED or EPA to assess fines or stipulated penalties is not dependent on Congressional appropriations or the Anti-Deficiency Act (See Section XX, paragraph 2 (page 36)).

Specific Comment 1. DOE recommends that the FFCA be revised to address this comments and suggests the following language to be inserted after the last sentence of Section IX (Submittal, Review and Approval of Deliverables), paragraph 9 (page 18):

Approval of a deliverable by EPA does not constitute approval by NMED, and DOE understands that any plan approved by NMED or agreement reached between DOE and NMED addressing mixed waste at LANL under the FFC Act may impose different or additional requirements and schedules on DOE.

Specific Comment 2. DOE is unaware of any programmatic requirements the FFCA imposes on NMED. NMED's review of deliverables is entirely optional.

Specific Comment 3. The concern expressed in the first paragraph and the first sentence of the second paragraph of comment 3 is already addressed in Section I, paragraphs 5 and 6 (pages 2 and 3), and Section XXIII (Other Applicable Law) (page 40). DOE recommends no changes as a result of this comment except to point out to NMED that the FFCA is limited by its terms to the "covered matters" described in the FFCA.

DOE has no objection to notification by EPA to NMED when EPA stops work under Section XVIII (Creation of Danger). DOE suggests that the following language be added to the end of paragraph 1 of Section XVIII (page 33):

Whenever EPA directs DOE to stop further implementation of this Agreement under this Section, it shall notify NMED.

Specific Comment 4. This comment requires clarification only. The distinction between Appendix A and Tables 1-4 of Appendix B is that Appendix A identifies primary waste streams that may

contain a variety of hazardous waste constituents. The purpose of Appendix A is to ensure that the Agreement encompasses all potential process wastes that are currently being generated at LANL or which DOE knows will be generated during the term of the Agreement. Tables 1-4 in Appendix B are more specific listings of process waste streams, based on current information, and subject to change as operations at LANL change. Appendix A can be changed only by formal modification to the Agreement. Tables 1-4 of Appendix B, on the other hand, are more specific and can be revised by annual reports to EPA.

In response to the last comment: examples of existing waste streams which are covered by the Appendix A category "Mercury" are found in Attachment A, Appendix B, Table 1, Waste Category number 8, "Decontamination waste", and Table 2, number 13, "Scrap metal"; "Dioxins" are found in Table 4, number 2, "Dioxins"; "Photographic Fixer" is found in Table 2, number 15, "Photographic fixer"; and Plutonium of "Plutonium Process Residue" is found in Table 3, number 3, "Process residue" and numbers 5, 7, and 8, "Cemented and Dewatered process sludges".

"Lead Stringers" were inadvertently combined with all shielding in Table 1, category 7. This category will be revised to show a separate location and volume for the lead stringers.

Specific Comment 5.

- a. As indicated in documentation provided to Joel Dougherty by LANL, NMED has asserted that LANL's mixed waste units do not have interim status under state law although NMED treats them as if they did have interim status in terms of enforcement. DOE views the FFCA as stating that the mixed waste units have interim status under federal law and does not purport to characterize their status under state law.
- b. Suggest revising last paragraph on page 5 of the Compliance Plan to read:

"The completion of this study will lead to development of the permit application and will identify upgrades which can be made. If upgrades are needed, a schedule for upgrade activities will be submitted as a deliverable (IFLL 200)."
- c. The phrase "applicable treatment facilities" (page 11 of the Compliance Plan) means treatment facilities which have the capability to handle the particular kind of waste requiring treatment. This qualification is particularly relevant because of the radioactive component of the waste. There are many offsite facilities available around the country which are able

to treat these hazardous wastes when they are not mixed with a radioactive component. These facilities are not "applicable" because they are not designed or licensed to manage radioactive materials. Additionally, there may be facilities which can accept mixed waste; however, their NRC license may be so limited as to the types and amounts of radioactive isotopes that the waste would have to be "diluted" or staged and treated in very small amounts over a long periods of time. Higher risks and other similar detrimental factors might make that option less desirable for safety reasons. There is no intent in the FFCA to discourage aggressive use of offsite or onsite treatment facilities.

*Environmental  
and safety*

- d. DOE recommends changing "impoundments" to "impoundment".
- e. DOE agrees that this change is required.

Specific Comments 6. DOE recommends that all references to HWMR-6 will be changed to HWMR-7.

**CCNS Comments (Attachment to 9/7/93 letter Coghlan to Dougherty).**

1. Will the Compliance Plan achieve the degree of compliance required by law?

DOE disagrees that the Compliance Plan for the FFCA is a "study" plan. The plan contains concrete requirements and schedules for the development of treatment technologies and the treatment of low level mixed waste to meet LDR standards and the handling of transuranic mixed waste to meet Waste Isolation Pilot Plant waste acceptance criteria.

In responding to CCNS, it should be stated that treatment technologies for mixed waste must take into consideration the radioactive component of the waste and whether treatment increases the radiation hazard to human health and the environment. Available treatment technologies may lead to dispersal or dangerous concentration of radioisotopes. Therefore, the Compliance Plan for the FFCA requires the development of treatment technologies for treating mixed waste.

However, the intent of the investigations into treatment technologies is to develop concrete facilities to treat low-level mixed waste currently in storage and projected to be generated in the future. The Compliance Plan is, thus, predicated on real treatment of mixed waste. The fact that funding has already been sought for such projects as the hazardous waste treatment

facility demonstrates a genuine willingness to achieve compliance with LDR requirements.

2. Future compliance is built on uncertainties and questionable assumptions.

CCNS's concern about the controlled air incinerator (CAI) is consistent with DOE's concern about blindly moving forward with existing treatment technologies. A large volume of low-level mixed waste in storage at LANL may be treated to LDR standards in the CAI. In order to assure that this facility is able to safely treat low-level and transuranic mixed wastes, an environmental assessment is currently being conducted. However, because the CAI is already in place and has proven to treat surrogate organic compounds to 99.9 percent destruction efficiencies, it must be considered in any plan to treat mixed waste to LDR standards to achieve compliance with Section 3004(j) of the Solid Waste Disposal Act, as amended.

It should be noted that the CAI will not be operated to treat mixed waste until (1) NMED either issues a new permit for modifies the existing hazardous waste permit for LANL to allow for treatment of mixed waste in the CAI and (2) DOE has completed the National Environmental Policy Act review process.

Regarding CCNS's comments in the last paragraph of this question on incineration technologies and performance, DOE provides the following information to demonstrate that the units mentioned by CCNS are not comparable to the CAI:

- \* The 1988 DOE HQ Environmental Survey discusses a unit located at TA-42, LANL, which operated in the early 1950s. It was operated before the currently applicable, stringent incineration performance standards were established by EPA. The CAI will not only be subject to the current standards but was also designed as a state of the art facility.
- \* All high-efficiency particulate filters are vulnerable to breaththrough. As a result, the CAI uses dual HEPA filters with a redundant, parallel filter bank system. If one of the dual filters fails during operation, the system can be manually switched to the redundant filter bank. Hence, although the probability exists that a filter will fail, it is very unlikely that particulates will be released to the environment.
- \* The Lawrence Livermore incinerator was unable to pass trial burns for halogenated organic compounds because downstream scrubber systems in that unit are inadequate to handle chlorine. The CAI, however, will undergo trial burns with surrogate compounds to determine whether it can effectively destroy the hazardous constituents of combustible mixed

wastes.

Finally the incinerator is intended to operate in compliance with EPA's proposed Combustion Strategy which incorporates emission standards for dioxins, toxic metals, and particulate matter.

3.

3. The respondent raises the issue of disposing mixed waste on-site. First, it should be noted that the proposed TA-54 Area G expansion to the west is for additional low-level, nonhazardous waste disposal. The Laboratory is currently developing plans for construction of a low-level mixed waste disposal facility that will be located at TA-67. Second, the intent of the compliance agreement is to bring the Laboratory into compliance with the storage prohibitions in RCRA §3004(j). This will be accomplished by a schedule outlined in the compliance plan. A discussion to dispose

treated, listed mixed wastes is not within the scope of this agreement. However, disposal of treated mixed wastes will be addressed in a consent agreement negotiated with the New Mexico Environment Department pursuant to the Federal Facilities Compliance Act of 1992.

4. It is LANL's intent to minimize the volume of radioactive and mixed waste to the greatest extent possible. All process wastes are undergoing assessments to identify opportunities for waste minimization through source reduction, product substitution, or process modification. Given the complexity of this facility and its ever-changing activities it is difficult, at this time, to realistically set an enforceable goal for waste minimization until further data become available. The Laboratory's ultimate goal, however, is to attain, if reasonably possible, zero discharge to air, water, or soil.

#### Los Alamos Study Group

The respondent comments that there is no mention of the proposed mixed waste disposal facility. To reiterate, the scope of this agreement is to bring the Laboratory into compliance with the LDR storage prohibitions in RCRA §3004(j).

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