

NEW MEXICO
HEALTH AND ENVIRONMENT
DEPARTMENT

ENVIRONMENTAL IMPROVEMENT DIVISION
Harold Runnels Bldg.-1190 St. Francis Drive
Santa Fe, New Mexico 87503

Richard Mitzelfelt
Director

GARREY CARRUTHERS
Governor
CARLA L. MUTH
Secretary
MICHAEL J. BURKHART
Deputy Secretary

January 5, 1989

TA 10
Mr. Harold E. Valencia
U.S. Department of Energy
Los Alamos Area Office
Los Alamos, NM 87544

Certified Mail P 965 484 183
Return Receipt Requested

RE: NMO890010515
TA-16 SURFACE IMPOUNDMENT CLOSURE

Dear Mr. Valencia:

After reviewing the materials submitted with your letter of December 7, 1988, providing comments on the closure plan for the surface impoundment at Technical Area 16, we must disapprove the plan as written. You are required, in accordance with HWMR-5, Part VI, Section 265.112(d)(4), to respond within 30 days of receipt of this letter with a revised closure plan addressing the issues delineated below.

1. The surface impoundment has been partially closed; emptied of liquids and the sludge and liner removed. The plan was not modified in accordance with HWMR-5, Part VI, Section 265.112(c)(1) to reflect the partial closure actions and the proposed actions remaining to complete closure. The numerous conditional actions in the original plan need to be deleted or revised to reflect the current proposed actions.
2. The original plan states that the maximum capacity of the impoundment is 18,610 gallons. The partial closure actions taken in September 1987 removed 100,000 gallons of contaminated fluids. This variance must be explained.
3. The plan does not reflect the totally enclosed treatment unit (TETU) which was installed to enable closure of this impoundment. This TETU is an integral part of the closure as it is one of the actions taken to preclude future release of hazardous waste or hazardous constituents.
4. The original plan states that the impoundment will be reused. The December 7, 1988 letter states that the impoundment will be filled with soil, regraded and replanted, subject to budgetary constraints.

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The current proposal needs to be clearly stated and the plan modified accordingly. Plant species and soil preparation should be addressed.

5. Original plan paragraph 5.1.4.2. indicates three boreholes to a depth of 120 feet will be drilled. This may not adequately monitor groundwater which is approximately 1000 feet below the impoundment. If groundwater is not monitored an alternative monitoring plan must be detailed.
6. The closure schedule in the original plan does not reflect the current state of the impoundment. Neither does it provide adequate detail to demonstrate that the schedule is reflective of the contingencies discussed in the plan.
7. The original plan (page 11) states that a closure sampling field log book will be kept. Supplemental Report Section 3 indicates that this was not done during the partial closure. Failure to follow the closure plan will preclude obtaining proper certification of closure. The plan must reflect actual actions which will be taken.
8. Paragraph 3.2 of the Supplemental Report enclosed with your December 7, 1988 letter states that the liner will be burned. Open burning of hazardous wastes is prohibited by HWMR-5, Part VI, Section 265.382 unless the waste is explosive. The liner should be decontaminated by some means other than open burning. If LANL plans to burn the liner as ordinary waste, after decontamination, the plan must contain documentation that the proper air quality permits are or will be available.
9. Supplemental Report paragraph 3.3 refers to two additional boreholes to be made in the bottom of the impoundment. These boreholes are not adequately described. Because Table C-3-2 has identified hazardous constituents in the soil, adequate sampling must be performed to determine the extent of the contamination.
10. Supplemental Report Appendix C Table C-3-2 indicates elevated levels of cadmium in sample 0278. The source of this hazardous constituent should be explained and its removal addressed if clean-closure continues to be proposed.
11. The laboratory analysis request sheets in Appendix E of the Supplemental Report indicate that only barium analysis was requested, yet paragraph 2.1.1 states that the impoundment never exceeded E.P. Toxicity levels of any other metal. Upon what is this statement based?

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12. The Appendix E data sheets refer to sample identification numbers different than those discussed in Appendix C. Provide identification in a common nomenclature so that all documentation associated with a sample may be identified.

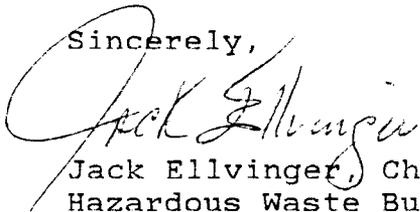
The revised plan should clearly reflect what actions have been taken and what remain to be taken. The later should be detailed sufficiently to establish what resources will be required, what time may be needed to accomplish each of the remaining actions, what sampling and analysis data will be gathered and what records will be kept.

To establish that clean closure has been achieved, the final sampling and analysis must be fully documented. A table summarizing the sampling results and the laboratory analysis sheets supporting the summary table should be included. This should be reflected in a final report, documenting the following:

1. Sample results summarized in tabular form.
2. An as-built block diagram showing the essential elements of the TETU installed to replace the impoundment. This diagram need not be to scale but must show permanent piping connected to the filter cones and the discharge point.
3. Disposition of sludges removed from the impoundment.
4. Disposition of all decontamination wash waters.

If you have any questions please call Mr. C. Kelley Crossman at 827-2923.

Sincerely,


Jack Ellvinger, Chief
Hazardous Waste Bureau

JE/pv

cc: Janie Hernandez, EPA (6H-HS)

(i) under paragraph (2) the lines of each surface impoundment and for operation of the facility for not longer than one year (unless renewed as provided in paragraph (4)), and

(B) shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the Administrator deems necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment, and

(C) shall include such requirements as the Administrator deems necessary to protect human health and the environment (including, but not limited to, requirements regarding monitoring, operation, insurance or bonding, financial responsibility, closure, and remedial action), and such requirements as the Administrator deems necessary regarding testing and providing of information to the Administrator with respect to the operation of the facility.

The Administrator may apply the criteria set forth in this paragraph in establishing the conditions of each permit without separate establishment of regulations implementing such criteria.

(2) For the purpose of expediting review and issuance of permits under this subsection, the Administrator may, consistent with the protection of human health and the environment, modify or waive permit application and permit issuance requirements established in the Administrator's general permit regulations except that there may be no modification or waiver of regulations regarding financial responsibility (including insurance) or of procedures established under section 7004(b)(2) regarding public participation.

(3) The Administrator may order an immediate termination of all operations at the facility at any time he determines that termination is necessary to protect human health and the environment.

(4) Any permit issued under this subsection may be renewed not more than 3 times. Each such renewal shall be for a period of not more than 1 year.

(h) WASTE MINIMIZATION.—Effective September 1, 1985, it shall be a condition of any permit issued under this section for the treatment, storage, or disposal of hazardous waste on the premises where such waste was generated that the permittee certify, no less often than annually, that—

(1) the generator of the hazardous waste has a program in place to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable; and

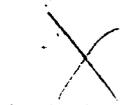
(2) the proposed method of treatment, storage, or disposal is that practicable method currently available to the generator which minimizes the present and future threat to human health and the environment.

(i) INTERIM STATUS FACILITIES RECEIVING WASTES AFTER JULY 26, 1982.—The standards concerning ground water monitoring, unsaturated zone monitoring, and corrective action, which are applicable under section 3004 to new landfills, surface impoundments, land treatment units, and waste-pile units required to be permitted under subsection (c) shall also apply to any landfill, surface impoundment, land treatment unit, or waste-pile unit qualifying for the authorization to operate under subsection (e) which receives hazardous waste after July 26, 1982.

3005.

(j) INTERIM STATUS SURFACE IMPOUNDMENTS.—

(1) Except as provided in paragraph (2), (3), or (4), each surface impoundment in existence on the date of enactment of the Hazardous and Solid Waste Amendments of 1984 and qualifying for the authorization to operate under subsection (e) of this section shall not receive, store, or treat hazardous waste after the date 4 years after such date of enactment unless such surface impoundment is



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in compliance with the requirements of section 3004(o)(1)(A) which would apply to such impoundment if it were new.

"(2) Paragraph (1) of this subsection shall not apply to any surface impoundment which (A) has at least one liner, for which there is no evidence that such liner is leaking; (B) is located more than 1/4 mile from an underground source of drinking water; and (C) is in compliance with generally applicable groundwater monitoring requirements for facilities with permits under subsection (c) of this section.

"(3) Paragraph (1) of this subsection shall not apply to any surface impoundment which (A) contains treated waste water during the secondary or subsequent phases of an aggressive biological treatment facility subject to a permit issued under section 402 of the Clean Water Act (or which holds such treated waste water after treatment and prior to discharge); (B) is in compliance with generally applicable ground water monitoring requirements for facilities with permits under subsection (c) of this section; and (C)(i) is part of a facility in compliance with section 301(b)(2) of the Clean Water Act, or (ii) in the case of a facility for which no effluent guidelines required under section 304(b)(2) of the Clean Water Act are in effect and no permit under section 402(a)(1) of such Act implementing section 301(b)(2) of such Act has been issued, is part of a facility in compliance with a permit under section 402 of such Act, which is achieving significant degradation of toxic pollutants and hazardous constituents contained in the untreated waste stream and which has identified those toxic pollutants and hazardous constituents in the untreated waste stream to the appropriate permitting authority.

"(4) The Administrator (or the State, in the case of a State with an authorized program), after notice and opportunity for comment, may modify the requirements of paragraph (1) for any surface impoundment if the owner or operator demonstrates that such surface impoundment is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water any any future time. The Administrator or the State shall take into account locational criteria established under section 3004(o)(7).

305. "(5) The owner or operator of any surface impoundment potentially subject to paragraph (1) who has reason to believe that on the basis of paragraph (2), (3), or (4) such surface impoundment is not required to comply with the requirements of paragraph (1), shall apply to the Administrator (or the State, in the case of a State with an authorized program) not later than twenty-four months after the date of enactment of the Hazardous and Solid Waste Amendments of 1984 for a determination of the applicability of paragraph (1) (in the case of paragraph (2) or (3)) or for a modification of the requirements of paragraph (1) (in the case of paragraph (4)), with respect to such surface impoundment. Such owner or operator shall provide, with such application, evidence pertinent to such decision, including

"(A) an application for a final determination regarding the issuance of a permit under subsection (c) of this section for such facility, if not previously submitted;

"(B) evidence as to compliance with all applicable ground water monitoring requirements and the information and analysis from such monitoring;

"(C) all reasonably ascertainable evidence as to whether such surface impoundment is leaking; and

"(D) in the case of applications under paragraph (2) or (3), a certification by a registered professional engineer with academic training and experience in ground water hydrology that—

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the manifest system referred to in section 3002(5);

"(3) treatment, storage, or disposal of all such waste received by the facility pursuant to such operating methods, techniques, and practices as may be satisfactory to the Administrator;

"(4) the location, design, and construction of such hazardous waste treatment, disposal, or storage facilities;

"(5) contingency plans for effective action to minimize unanticipated damage from any treatment, storage, or disposal of any such hazardous waste;

"(6) the maintenance of operation of such facilities and requiring such additional qualifications as to ownership, continuity of operation, training for personnel, and financial responsibility as may be necessary or desirable; and

"(7) compliance with the requirements of section 3005 respecting permits for treatment, storage, or disposal.

No private entity shall be precluded by reason of criteria established under paragraph (5) from the ownership or operation of facilities providing hazardous waste treatment, storage, or disposal services where such entity can provide assurances of financial responsibility and continuity of operation consistent with the degree and duration of risks associated with the treatment, storage, or disposal of specified hazardous waste.

Section 304.

"(b) SALT DOME FORMATIONS, SALT BED FORMATIONS, UNDERGROUND MINES AND CAVES.—

"(1) Effective on the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine, or cave is prohibited until such time as—

"(A) the Administrator has determined the record in the affected areas, that such placement is protective of human health and the environment;

"(B) the Administrator has promulgated performance and permitting standards for such facilities under this subtitle, and

"(C) a permit has been issued under section 3005 (c) for the facility concerned.

"(2) Effective on the date of enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of any hazardous waste other than a hazardous waste referred to in paragraph (1) in a salt dome formation, salt bed formation, underground mine, or cave is prohibited until such time as a permit has been issued under section 3005(c) for the facility concerned.

"(3) No determination made by the Administrator under subsection (d), (e), or (g) of this section regarding any hazardous waste to which such subsection (d), (e), or (g) applies shall affect the prohibition contained in paragraph (1) or (2) of this subsection.

"(4) Nothing in this subsection shall apply to the Department of Energy Waste Isolation Pilot Project in New Mexico.

"(c) LIQUID IN LANDFILLS.—

"(1) Effective 6 months after the date of the enactment of the Hazardous and Solid Waste Amendments of 1984, the placement of bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous waste (whether or not absorbents have been added) in any landfill is prohibited. Prior to such date the requirements (as in effect on April 30, 1983) promulgated under this section by the Administrator regarding liquid hazardous waste shall remain in force and effect to the extent such requirements are applicable to the placement of bulk or noncontainerized liquid hazardous waste, or free liquids contained in hazardous waste, in landfills.