



Department of Energy

Carlsbad Area Office
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December 20, 1999

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Stewart J.

Mr. Tim Michael
Technical Support Program Manager
State of New Mexico Environment Department
Department of Energy Oversight Bureau
2044 A Galisteo Street, P.O. Box 26110
Santa Fe, New Mexico 87502-6110

Subject: Transmittal of Review Comments on New Mexico Environment Department Draft •
Technical Report, Contaminant Migration Potential Due to Surface Water Erosion for
14 Solid Waste Management Units at The Department Of Energy Waste Isolation Pilot
Plant

Dear Mr. Michael:

On December 2, 1999, the U.S. Department of Energy Carlsbad Area Office (CAO) received a copy of a letter and report addressed to Mr. George Basabilvazo. The letter requested comments on a draft technical report prepared by the New Mexico Environment Department (NMED) DOE Oversight Bureau. The title of the report is *Contaminant Migration Potential due to Surface Water Erosion for 14 Solid Waste Management Units at the Department of Energy Waste Isolation Pilot Plant*. CAO has reviewed this document and with this letter transmits technical review comments as requested by December 17, 1999.

CAO appreciates the opportunity to review the draft NMED report. The draft report indicates that there are no further surface water-related erosion issues at the Solid Waste Management Units (SWMUs), since DOE implemented the recommended Best Management Practices at two SWMUs (i.e., 001o and 001q) in the fall of 1998. CAO understands that any future requests from the Oversight Bureau regarding the SWMU's will be coordinated with the NMED Hazardous and Radioactive Materials Bureau (HRMB). This coordination is necessary to avoid conflicts with the Module VII requirements of the WIPP Hazardous Waste Permit.

Our comments on the draft report are presented below.

GENERAL COMMENTS

- Although NMED has evaluated the SWMUs for surface water-related soil erosion, there is no regulatory basis for the evaluation and no HRMB directions regarding the report conclusions.

- The document describes a qualitative process for evaluating potential soil erosion due to surface water processes. All of the sample results included in the report represent metal concentrations in soil at least 12 inches below ground surface. The mudpits were covered with native soil removed from the mudpit and graded prior to abandonment. The Portacamp Storage Yard (SWMU 004a) is covered with caliche. Potential contaminant migration cannot be evaluated based on the analytical data presented in the report.
- The metal concentrations reported by the laboratory as integer values should be reported by NMED as integer values. For example, a single barium concentration should be reported as 43 parts per million (ppm) rather than 43.0 ppm.
- The background concentration for nickel should be reported as 2 ppm [U] for SWMUs 001 o, p and q.
- The dimensions for several of the SWMUs (i.e., SWMUs 001 g, h, k, l, and s,) are not consistent with dimensions contained in NMED's *Assessment of Solid Waste Management Units at the Waste Isolation Pilot Plant, the WIPP RCRA Facility Assessment (RFA)*, (1993).
- The SWMU scoring could not be evaluated, since the completed Part B forms and other appropriate field notes for each SWMU were not provided in the report.

SPECIFIC COMMENTS

TABLE OF CONTENTS

The page number for Section 5.0, Acknowledgments, and References should be listed as 23.

1.0 Introduction

Visual observations are used to evaluate the potential for surface erosion of soil. There are no data presented in the document that demonstrate that metals are present in erodible surface soils, or that any migration of metals could occur.

The metal concentrations in samples collected within the boundaries of the SWMUs are generally comparable to background concentrations. The word "contaminant" should not be used.

3.0 Site Assessment Process

No recommendation for planting a native grass mixture is included as a Best Management Practice for any of the SWMUs.

3.1 Methods

The report presents measured SWMU and background total metals concentrations. No evaluation of the "degree of contaminants" is contained in Part A.

3.2 Part A Site Data

This section indicates that the assessment used all available data and focused primarily on arsenic, barium, chromium, cadmium, lead, nickel and mercury. The report should provide a rationale for inclusion of these metals and exclusion of other constituents (e.g., TCLP metals, volatiles, semivolatiles; total volatiles and semivolatiles). The data presented are total metals concentrations.

3.3 Part B Site Setting

The weighting factors and factor scores should be described.

3.3.3 Site Slope

Module VII of the WIPP Hazardous Waste Permit defines SWMUs 001g through 001x as drilling mudpits. The drillpads are not part of the SMWUs. The scoring for site slope should be limited to the SWMUs.

3.5 Part B Surface Water Assessment Erosion Matrix (Table 1)

The factor score for "Where does/would runoff terminate" is 20 in Table 1, and the factor score for "Run-off termination point" is 10 in Table 2.

Table 2 Summary of Site Erosion Potential Scores

Four of the weighting factors have three distinct possible values (i.e., 1, 5, or 10; 2, 10, and 20) rather than a range of values (i.e., 1 to 10; 1 to 20).

SWMU 001(j)

This SWMU is associated with the P-3 potash exploration well and not the H-13 monitoring well.

SWMU 001(m)

This SWMU is the mudpit associated with the P-6 potash exploration well.

SWMU 001(n)

Replace the "X" in the first sentence with the word "by".

SWMU 001(o) Badger Unit

Replace the "X" in the first sentence with the word "by", and report the dimensions as "feet" rather than "foot". DOE/WID installed erosion controls in the fall of 1998 at this SWMU to address potential surface water-related erosion concerns raised by NMED.

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SWMU 001(p) Cotton Baby

The description of this borehole should be "1-Grace Cotton Baby Federal".

SWMU 001(q) DOE-1

DOE/WID installed erosion controls in the fall of 1998 at this SWMU to address potential surface water-related erosion concerns raised by NMED.

SWMU 001(t)

This site is an abandoned mudpit from the drilling of the potash exploration well IMC-374.

SWMU 001(x)

Module VII of the WIPP Hazardous Waste Permit defines SWMU 001(x) as the abandoned mudpit from the drilling of WIPP-13. Because the mudpit is depressed by about 1.5 feet from the surrounding terrain, there is little potential for surface soil erosion. Erosion of the drill pad should not be considered as part of the evaluation of this SWMU.

In the fifth line, change the word "sings" to "signs".

SWMU 004(a)

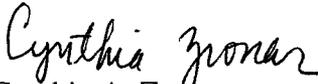
Module VII of the WIPP Hazardous Waste Permit defines SWMU 004(a) as the west side of the Portacamp Storage Yard.

5.0 Conclusions

The definitions for thirteen of the SWMUs include only the drilling mudpits. The drill pads are not part of the SWMUs.

CAO is pleased to provide these comments in response to the NMED letter. If you have any questions regarding this letter, please call me at telephone number (505) 234-7495 or call Ms. Linda Frank-Supka at telephone number (505) 234-8816.

Sincerely,


Cynthia A. Zvonar
Environmental Programs Manager

cc:

Steve Zappe, Hazardous and Radioactive Materials Bureau