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PETER MAGGIORE
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 13, 2000

Dr. Inés Triay, Manager
Carlsbad Area Office
Department of Energy
P. O. Box 3090
Carlsbad, New Mexico 88221

Mr. Joe Epstein, General Manager
Westinghouse WID
P.O. Box 2078
Carlsbad, NM 88220

**RE: REQUEST FOR SUPPLEMENTAL INFORMATION (RSI) - TECHNICAL ADEQUACY
REVIEW OF WIPP MINE VENTILATION RATE MONITORING PLAN
EPA ID No. NM4890139088**

Dear Dr. Triay and Mr. Epstein:

The Hazardous and Radioactive Materials Bureau (**HRMB**) of the New Mexico Environment Department (**NMED**) has reviewed for technical adequacy the November 2, 1999 submittal entitled "WIPP Mine Ventilation Rate Monitoring Plan". You submitted this document in compliance with Permit Conditions I.J and IV.J of the WIPP Facility Hazardous Waste Permit.

After reviewing this plan against the requirements specified in Permit Conditions IV.J.1 and .2, HRMB has found the document to be technically incomplete. The enclosed attachment lists the requested supplemental information (**RSI**) necessary for HRMB to evaluate the completeness of the document and to incorporate it into the Permit as Attachment Q as specified in Permit Condition IV.J.4.

Please submit the requested information within thirty (30) calendar days from the date you receive this RSI. HRMB may consider a petition for a deadline extension, provided that a written justification and the expected submittal date are given.

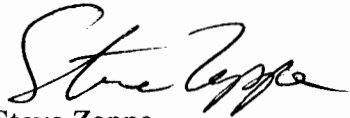
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Dr. Triay and Mr. Epstein
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If you have any questions about this RSI, please contact me at (505) 827-1560, x1013.

Sincerely,

A handwritten signature in black ink that reads "Steve Zappe". The signature is written in a cursive style with a large, stylized "S" at the beginning.

Steve Zappe
NMED WIPP Project Leader

Enclosure

cc: James Bearzi, Chief, HRMB
John Kieling, Acting Manager, Permits Management Program, HRMB
Susan McMichael, NMED OGC
Jody Plum, DOE/CAO (via fax)
David Neleigh, EPA Region 6
Connie Walker, TechLaw, Inc.
WIPP File - Red '00

**WIPP Mine Ventilation Rate Monitoring Plan
Request for Supplemental Information**

The following comments address the proposed WIPP Mine Ventilation Rate Monitoring Plan (the Plan), dated November 2, 1999, submitted to the NMED by the Permittees in accordance with Permit Condition IV.J.

Review comments on the Plan follow each pertinent Permit Condition from the WIPP Permit.

IV.J. COMPLIANCE SCHEDULE

The Permittees shall provide a Mine Ventilation Monitoring Plan to the Secretary within ninety (90) calendar days of issuance of this Permit.

IV.J.1. Objective

The Mine Ventilation Rate Monitoring Plan shall specify a monitoring program that will result in the collection of data of adequate quantity and quality to allow the Permittees to demonstrate compliance with the ventilation requirements of Permit Condition IV.E.3.b.

(Permit Condition IV.E.3.b is provided below for ease of reference)

IV.E.3.b. Ventilation - The Permittees shall maintain a minimum running annual average mine ventilation exhaust rate of 260,000 standard ft³/min and a minimum active room ventilation rate of 35,000 standard ft³/min when workers are in the room, as specified in Permit Attachment M2, Section M2-2a(3), "Subsurface Structures (Underground Ventilation System Description)" and as required by 20 NMAC 4.1.500 (incorporating 40 CFR §264.601(c)).

Comment 1: The Objective of the Monitoring Plan (Section 1.0, first paragraph, third sentence) states that the Permit establishes a requirement to: "...maintain a minimum of 35,000 actual cubic feet of air per minute through the active disposal room when workers are present in the room and actively emplacing waste." A similar statement is included in Section 3.3 of the Plan. The Permit actually references Attachment M2, Section M2-2a(3), which states, in part (page M2-8, lines 34-35), that: "A minimum of 35,000 ft³ per min will be maintained in each active room when workers are present in the room." This minimum ventilation rate is not limited (in the Permit Conditions or in Permit Attachment M2) to the times when waste emplacement operations are being performed. Please revise the Plan to remove the added qualification ("and actively emplacing waste") in the Objective statement and in Sections 3.1 and 3.3 of the Plan. Also revise the Plan to

remove any other language which implies that the minimum room ventilation rate is only associated with the facility being placed in “Waste Handling Mode”. Alternatively, if compliance with the minimum ventilation rate requirement is viewed as unnecessary outside of the times when waste emplacement operations are actually being performed, a Permit Modification should be requested and supporting information provided.

Comment 2: The Plan provides for airflow measurement as part of daily Preoperational Inspections of active rooms, when disposal operations are to be performed that day. However, the Plan does not provide for monitoring of the ventilation rate at other times when workers are expected to be present in an active room. Workers may be present in an active room before disposal begins, during days between waste emplacement activities, during construction of ventilation barriers, during structural and geomechanical monitoring system maintenance and inspections, and other occasions when disposal operations may not be planned for that day. Other less frequent ventilation rate monitoring activities (Quarterly Verification Checks, Test and Balance) apparently may not specifically address the ventilation rate in active rooms at all. Workers are expected to be in active rooms many times before, between, and after disposal operations. Please provide additional explanation of the monitoring to be performed to demonstrate compliance with the active room ventilation requirements of Permit Condition IV.E.3.b, during days when waste emplacement operations are not planned. Alternatively, if compliance with the minimum ventilation rate requirement is viewed as unnecessary outside of the times when waste emplacement operations are actually being performed, a Permit Modification should be requested and supporting information provided

Comment 3: Monthly evaluation, as required in Permit Condition IV.F.3.c, of the active disposal room airflow rate specified in Permit Condition IV.E.3.b, is not explicitly acknowledged in the Plan. Section 6.0, Required Reports and Notification, references “Module” [Permit Condition] IV.F.3.c, but does not quote or explain the monthly active room ventilation evaluation requirement, or how implementation of the Plan will demonstrate compliance. The Plan is therefore incomplete, being dependent on reference to more detailed requirements elsewhere in the Permit. The Plan itself should provide adequate direction to the Permittees’ staff to demonstrate compliance with the Permit requirements.

Section 6.0 also incorrectly references “Module IV.E.2b”, which does not exist. (The intended reference was apparently Permit Condition IV.F.2.b.) The potential for inadvertent violations of the Permit to occur would be reduced if the actual requirements (in Permit Condition IV.F.3.c) for monthly evaluation of the ventilation rates through both the active disposal room and the entire underground, and notification of the Secretary if *either* of these requirements is not met, are provided in the Plan.

Please revise the Plan to include full quotation or adequate explanation of the requirements in Permit Condition IV.F.3.c, and remove the incorrect reference to “IV.E.2b”. (Also see Comments 10-13.)

IV.J.2. Content of the Mine Ventilation Rate Monitoring Plan

The Mine Ventilation Rate Monitoring Plan shall address the following at a minimum: objectives of the monitoring; design of the monitoring program (including monitoring schedule and monitoring equipment); monitoring procedures; equipment calibration and maintenance; data evaluation, reporting and recordkeeping; and quality assurance.

Comment 4: Although the required topics are addressed in the Plan, the actual procedures and schedules to be followed, and the data and evaluations to be reported, are unclear. For example, the monitoring described in section 3.2, Test and Balance, appears to consist of a comprehensive evaluation of flow rates throughout the underground. This will produce the most definitive and accurate ventilation rate measurement data. However, this procedure will be performed only at intervals of 12 to 18 months. The Plan does not explain whether the Test and Balance results will be correlated or compared with the three other types of ventilation monitoring that will be performed: fan run time logs (section 4.1); preoperational disposal area inspections (section 3.3); and quarterly flow verification checks (section 3.4). Please clarify whether the Test and Balance data and evaluation will be included in the annual report, and how (or if) that data will be used in evaluating other ventilation monitoring data.

Comment 5: Airflow measurements in the active disposal room will be part of preoperational disposal area inspections that will apparently be performed daily before the start of disposal operations, if such operations are to be conducted that day. The preoperational inspection schedule is not defined in the Plan (section 3.4, Monitoring Schedule); it is explained in Permit Attachment D, Table D-1, Inspection Schedule, Note “c”, but this definition is not referenced in the Plan. The active disposal room monitoring in section 3.4 could reasonably be interpreted to be performed only once, at the initiation of disposal operations, in each room. Please define or explain the active room ventilation rate monitoring frequency explicitly in the Plan.

Comment 6: Section 3.3 of the Plan states that an anemometer will be used to determine the quantity of airflow in each active room. Section 3.5 states that a differential pressure sensor, Pitot tubes and other equipment may also be used to measure airflow through the active room. The actual procedure to be followed in measuring the active room ventilation rate is not provided. Please resolve this discrepancy and describe the active room ventilation rate monitoring procedure in section 3.3.

Comment 7: The quarterly flow verification check procedure, the location(s) where the flow checks will be performed, data evaluation, recordkeeping and reporting are not explained in the Plan. Please revise the Plan to include this information.

IV.J.3. Incorporation of Permit Requirements

The Permittees shall incorporate the implementation, reporting and notification requirements of Permit Condition IV.F.3 into the appropriate sections of the Mine Ventilation Rate Monitoring Plan.

Comment 8: The requirements of Permit Conditions IV.F.3.a are incorporated in section 2.0 of the Plan (see Comment 10). The requirements of IV.F.3.b are partially incorporated in section 6.0 of the Plan (see Comments 11 and 12). Section 6.0 the Plan references, but only partially incorporates Permit Condition IV.F.3.c (see Comments 3 and 13). Please revise the Plan to incorporate the full requirements of Permit Condition IV.F.3 into the Plan.

IV.J.4. Approval of the Plan

After the Permittees submit the Mine Ventilation Rate Monitoring Plan, the Secretary may approve, disapprove, or modify and approve the Mine Ventilation Rate Monitoring Plan in writing. If the Secretary approves the Mine Ventilation Rate Monitoring Plan, the Secretary will modify the permit in accordance with Permit Condition I.B.1. In the event of disapproval (in whole or in part) of the Mine Ventilation Rate Monitoring Plan, the Secretary shall specify deficiencies in writing. The Permittees shall correct these deficiencies and submit a modified Mine Ventilation Rate Monitoring Plan within thirty (30) calendar days of such written notification to the Secretary for review.

Comment 9: Please correct the deficiencies noted in Comments 1-8 and 10-13, and submit a modified Plan within thirty calendar days from the date of receipt of these comments.

IV.F.3. Mine Ventilation Rate Monitoring

IV.F.3.a. Implementation of Mine Ventilation Rate Monitoring Plan - the Permittees shall implement the Mine Ventilation Rate Monitoring Plan specified in Permit Attachment Q (Mine Ventilation Rate Monitoring Plan) and as required by 20 NMAC 4.1.500 (incorporating 40 CFR §264.602 and §264.601(c)). The Permittees shall implement this plan within thirty (30)

calendar days of approval by the Secretary until the certified closure of all Underground HWDUs.

Comment 10: The Plan states (section 2.0) that the Permittees will implement the plan "...30 days after approval..." This is a minor difference, and not a significant concern. The daily monitoring data (fan run time and preoperational disposal room readings) are apparently already being routinely collected. There seems to be no reason to neglect the data already collected since Permit issuance, especially the active disposal room airflow measurements. In order to maximize the data available for demonstrating compliance with the Permit Conditions, the Permittees may use data collected from the effective date of the Permit (November 26, 1999). This early monitoring data collection start date is not required, but the Plan must be implemented no later than 30 calendar days following the date of Plan approval. Please specify the Permit issuance date as the starting date for data collection, or provide an explanation for waiting for Plan approval.

IV.F.3.b. Reporting requirements - as part of the annual report to the Secretary required under Permit Condition IV.F.2.b, the Permittees shall describe the implementation and present the results of the data and analysis of the Mine Ventilation Rate Monitoring Plan.

Comment 11: Section 6.0, Required Reports and Notification, does not clarify whether any of the details of ventilation rate monitoring activities (implementation) will be provided in the annual reports, or which data and analyses will be reported. The absence of specifications may lead to future misunderstanding as to the expected content of future reports. Please revise the Plan to indicate whether the annual report will include descriptions of implementation, data and evaluation from all four types of ventilation rate monitoring.

Comment 12: The Plan does not explain that the annual ventilation monitoring report will be part of the air monitoring report required by Permit Condition IV.F.2.b. Please revise the Plan to explicitly include the requirements of Permit Condition IV.F.3.b.

IV.F.3.c. Notification Requirements - The Permittees shall calculate the running annual average mine ventilation exhaust rate on a monthly basis. In addition, the Permittees shall evaluate compliance with the minimum active room ventilation rate specified in Permit Condition IV.E.3.b on a monthly basis. Whenever the evaluation of the mine ventilation monitoring program data identifies that the ventilation rates specified in Permit Condition IV.E.3.b have not been achieved, the Permittees shall notify the Secretary in writing within five (5) working days.

Comment 13: As noted in Comment 3, the Plan does not acknowledge the requirement to evaluate compliance with the minimum active room ventilation rate on a monthly basis. Since the Plan apparently includes daily airflow measurement in active disposal room(s), using calibrated instrumentation, as well as additional quarterly verification flow checks and less frequent Test and Balance assessments, there should be no need for additional monitoring efforts. However, it is not yet clear whether the quarterly checks and the Test and Balance will include any measurements in active rooms, or if the data from these monitoring activities will be compared with the preoperational inspection measurements, or the fan run time data. Please revise the Plan to include monthly evaluation of compliance with the minimum active room ventilation rate requirement, and an explanation of how this evaluation will be performed.