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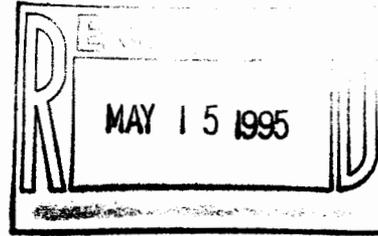


Department of Energy
Los Alamos Area Office
Albuquerque Operations Office
Los Alamos, New Mexico 87544

MAY 11 1995

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Barbara Hoditschek
Permitting Program Manager
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
525 Camino de los Marquez
P. O. Box 26110
Santa Fe, New Mexico 87502



Dear Ms. Hoditschek:

The purpose of this letter is to respond to your request for additional information on three of the proposed permit modifications for the Controlled Air Incinerator (CAI) submitted March 28, 1995. Your letter dated April 17, 1995, was received April 27, 1995. In a subsequent phone conversation with Stu Dinwiddie of your staff, it was agreed that a response date of May 11, 1995 would be appropriate.

Your first request concerned the upgrade to the list of emergency communication equipment. It was determined by your staff that there was insufficient information to make a class determination on this issue.

The change that was initially discussed in our submittal was proposed as a Class I modification. The changes discussed were initially provided in our modification request of April 1993. Additionally, the contingency plan was modified again as a result of a permit modification reflecting the changes caused by the approval of the permit application for the TRU Pad Remediation Project approved March 15, 1994 via a letter from Benito Garcia (see Enclosure I). Both of those documents contained all of the changes to the contingency plan needed to update the CAI portion of the permit. For this reason, we believed that the proposed modification would, at most, be considered a Class I request.

The following equipment is specific to the CAI and is redundant to that listed for the facility in the contingency plan approved March 15, 1994. It is provided for your information and consideration.

- Telephone Paging System
- Internal Telephone Communication Line
- Two Automatic Thermal Alarms located at both the inlet and the exhaust of the ventilation system
- Eleven Pull Alarms

Fire Alarm Pull Boxes located:

1 each:	Rooms 11, 17, 101, 111, 116, 202 and 209
2 each:	Rooms 21, 112, and 114
Total:	14

Evacuation Alarm Pull Stations located:

1 each:	Rooms 101, 113, and 114
2 each:	Room 112
Total:	5



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The second area of concern in your letter cited the proposed modification stating "...1400 degrees Fahrenheit, measured at the hot duct between the Primary and Secondary chamber..." to "...1400 degrees Fahrenheit, measured at the entrance to the duct connecting the primary and secondary combustion chambers." Your request was for a detailed description of this modification to ensure that the sensor is not positioned in an inappropriate location to provide the required information.

It was our concern from the beginning that there might be some misinterpretations of what we intended in our list. It was our hope that we could meet and go through the modifications once NMED had the opportunity to review them and formulate questions prior to going to the Notice of Modification Class Determination stage. This is one of many of those cases in this package. The modification proposed was a change in language only. We should have more clearly stated that there was no physical change of the temperature measuring location. The only intent of the proposed wording is to more accurately describe the location of the temperature measuring point (TE-108) for the primary combustion chamber, not to seek a change in its location.

The final concern raised in your letter cites the modification requesting a change in the pH monitoring locations. You stated a more detailed description of the pH meter's new location and validation of the logic for the move was required.

The present locations of the pH probes in the CAI process scrub solution piping are as follows (see Enclosure II):

1. On the blowdown scrub solution leaving the building (AE-748)
2. On the scrub solution supply from the process sump tank to the process (AE-744B)
3. On the scrub solution return from the process (AE-744A)

The pH probe described in 1. above, records the pH of solution leaving the building sump tank and is used only for monitoring. It has no use for controlling the scrub solution pH.

Variations of hydrogen chloride and other acid gas concentrations in the combustion gas will result in pH deviations during the combustion process. When the scrub solution is returned to the process sump tank, it combines with sump tank recirculation. This mixing serves to greatly dampen the pH variations in the scrub solution return from the process. The pH in the process sump tank recycle is the most important pH reading in the process because the scrub solution blowdown stream comes from this stream. A pH probe installed in the recycle line will allow this pH to be monitored, even when the blowdown flow rate from the process sump tank to the building sump tank is zero.

The pH probe currently installed in the scrub solution supply line (2. above) will be moved to the recycle scrub solution line. The pH of the solution returning from the Process (3. above) will be the primary control value for adjusting the sodium hydroxide addition rate.

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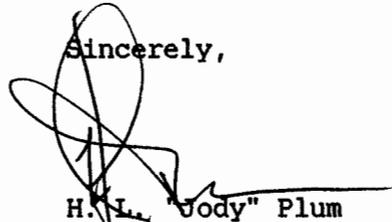
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In an additional proposed process modification, a piping change is described that will introduce the makeup sodium hydroxide into the scrub solution feed to the quench tower. This is important because it enables the quench system to absorb acid gases more efficiently (at a slightly alkaline pH). This change also enables the scrub solution tank and effluent to be maintained near a neutral pH. These two conditions could not be achieved together with the original sodium hydroxide point of introduction (at the common return from the quench and absorber column sumps). Please see Enclosure III to see the proposed configuration.

We would like to take this opportunity to invite you and/or your staff to come and see the CAI. We think that we can clearly point out and explain the changes that we have included in our modification package. We think that this type of interaction is extremely important. We also want to discuss several of the classification determinations made by NMED to get clarifications and be sure that our intentions were understood. We will be contacting you and/or your staff within the next few days to try and set this meeting up.

If you should have any questions concerning this letter, please feel free to contact me at (505) 665-5042.

Sincerely,



H. L. "Jody" Plum
Office of Environment and Projects

LAAMEP:6JP-001

Enclosures

cc w/enclosures:

Jack Ellvinger, ESH-19, LANL, MS-K490
Kathryn Elsberry, CST-16, LANL, MS-E517
Garth Reader, CST-16, LANL, MS-E517
Paul Schumann, ESH-19, LANL, MS-K498
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