

**Risk Reduction & Environmental Stewardship Division**

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Date: March 26, 2003  
Refer to: RRES-MAQ:03-062

Dr. John Volkerding  
Air Quality Bureau  
New Mexico Environment Department  
2048 Galisteo  
Santa Fe, NM 87505

Dear Dr. Volkerding:

The open burn permit issued on December 27, 2002 to Los Alamos National Laboratory (LANL) for the TA-16 Flash Pad, requires LANL to notify NMED prior to burn activities involving wet and dry bulk high explosives (HE).

We will provide this notification on a weekly basis; however, LANL respectfully maintains that these activities qualify for unrestricted open burning under 20.2.60.109 C. NMAC. As such, they are not subject to permit conditions. Specifically, the open burning of wet and dry bulk HE is performed at the TA-16 Flash Pad because it is dangerous to transport to another facility. This is also true of other waste streams burned there. Further, only the non-HE combustibles were subject to an open burn permit in the past.

Attached for your information is a more detailed analysis for the relevant applicability of 20.2.60.109 C. NMAC. As the attachment shows, NMED's interpretation of 20.2.60.109 C. NMAC has changed from its historical and traditional position.

LANL requests that NMED reconsider the applicability of the unrestricted open burning of explosives as described in 20.2.60.109 C. NMAC and remove the permit requirement associated with these activities. Unless we hear otherwise from your office, LANL will provide the requested notifications. If you have any questions or would like any additional information, please contact me at 665-8862 or Jackie Hurtle at 665-4380.

Sincerely,



Scott Miller  
Deputy Group Leader  
Meteorology and Air Quality Group

SM:alb

Att: a/s



*Dr. John Volkerding*  
*RRES-MAQ:03-062*

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*March 26, 2003*

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RRES-MAQ ESA OB Permit Application File

RRES-MAQ File

*Issue.* Whether open burning of bulk wet and dry high explosive (HE) on TA-16 requires an open burning permit from the Air Quality Bureau (AQB) of the New Mexico Environment Department under 20.2.60 NMAC.

*Background.* 20.2.60.108 NMAC prohibits open burning except "as otherwise provided in this Part. . . ." Section 113 requires a permit for open burning for the purpose of "disposal of dangerous materials."

However, section 109 of Part 60, "Unrestricted open burning," establishes exceptions to the restrictions on open burning. Section 109.C states: "Open burning of explosive materials is permitted where the transportation of such materials to other facilities could be dangerous."

Under its traditional administrative practices, the AQB has not required a permit for the open burning of explosives at TA 16 pursuant to the exception found in section 109.C. See the April 1, 1996 letter from DOE to Filiberto Dominguez of the New Mexico Air Pollution Control Bureau:

As stipulated in 20 NMAC 2.60, Section 109, paragraph C, unrestricted open-burning of HE material is allowed as means of disposal in order to eliminate the hazards associated with transportation. Two open-burning operations conducted at TA 16 involve almost pure HE materials and therefore, not subject to permitting under 20 NMAC 2.60 and not included in the attached permit application. . . . The format of this application remains the same as other applications submitted to your department in the past.

A recent LANL application for an open burning permit TA-16 dated December 3, 2002, took the traditional position that permits for the open burning of bulk high explosive (HE) as wet or dry solid pieces at TA-16 did not require a permit. The application stated that part 60 allowed the unrestricted open burning of explosives when "the transportation of such materials could be dangerous." See application at sections 2.2 and 3.0.

In response, the AQB changed its historical position. It granted a burn permit by a letter dated December 27, 2002, but required LANL to notify the Bureau "24 hours prior to burn activities involving wet and dry bulk HE."

The AQB letter also commented:

LANL states that bulk wet and dry HE are exempt from the requirements of 20.2.60.109 NMAC and as such is not proposing notification for burns of these materials. In reading this section of the NMAC, I do not conclude that bulk wet and dry HE are exempt. Although paragraph 109 does allow for unrestricted open burning of explosive material where the transportation of such materials to other facilities could be dangerous, paragraph 113 states that permits must be obtained for disposal of dangerous materials and other special circumstances. The

exemption found in paragraph 109 was intended for situations requiring the disposal of an explosive material that was required disposal [sic] because of a spill or other unplanned release. Since the activities at TA 16 are planned, the Bureau does not conclude these activities qualify for the exemption in paragraph 109.

*Discussion.* The Air Quality Bureau states that, although section 109.C allows unrestricted burning, section 113 requires a permit. However, it is appropriate to read the two sections together harmoniously whenever possible, and it is possible to do that in this case. Section 113 states the general rule that open burning of *dangerous* materials requires a permit; but section 109 states a special exception to the general rule. When the dangerous material is an *explosive* and the transportation of the explosive “to other facilities could be dangerous,” open burning is unrestricted, i.e., no permit is required.

The AQB’s reliance on whether a burn is planned or unplanned seems inconsistent with Part 60. The section 109.C exemption does not distinguish between planned or unplanned burns. The only test is whether “the transportation of such materials to other facilities could be dangerous.”

The AQB furnished an email suggesting that the exemption is limited to “cases where moving the material was impossible from a safety point of view – i.e., situations such as a truck overturning, or a stash of old dynamite found in a remote location. A permit would be required if it were possible to move the material.” The examples given are of accidental spills or accidental discoveries. These are not planned, but as the email itself states, the test is not whether the situation could be characterized as planned or unplanned, but whether the material could be too dangerous to move to another facility. The AQB’s email correctly emphasizes that *safety* is the issue.

Another email from the AQB attaches two pages that are part of a transcript of a proceeding before a hearing officer concerning Rule 301. Apparently Rule 301 was the predecessor of Part 60. A Mr. Rainey states:

The present regulation that is in this book which is proposed to be amended says in Rule 301, “Open burning is permitted at the site where it occurs of . . . and then paragraph 2 . . . hydro-carbon spilled or lost from pipeline breaks or other transport failure which cannot practically be recovered or be disposed of lawfully in some other manner.” This is what we are talking about here. This is a part of the transport of natural gas and if it is lost there is no way you can do anything about it except burn it. That is what we are talking about, the fact that that has been removed. That was an amendment which needs to be put back in.

From the examples given, it appears that the AQB has provided this quotation to suggest again that the section 109 exemption is limited to unplanned, accidental releases, as from a pipeline. However, the quotation does not support this interpretation for two reasons. (1) As noted above, the plain language of section 109.C does not establish a planned/unplanned test, but a test of whether the explosive material could be dangerous

to move to another facility. (2) Mr. Rainey's statement deals with pipeline spills. Even though these spills are unplanned, the regulation deals with them differently, requiring a permit. Section 113 expressly requires an open burning permit for "disposal of hydrocarbons spilled or lost from pipeline breaks or other transport failure." In contrast, section 109.C deals with explosive materials and does not require a permit or impose other restrictions when the explosive could be too dangerous to transport to another facility. The plain language of the regulation treats explosives as a special case, different from pipeline spills or breaks.

Nothing furnished by the AQB questions that bulk HE "could be dangerous." Upon information, most of the bulk explosive HE is the explosive component, with about 5% plasticizer. In the machining of the material, the plasticizer is removed, exposing crystals of the explosive, or, in the case of wet material, allowing crystals to form when the material dries. These crystals are sensitive to shock. Such material is too risky to transport to another "facility" over a public highway. Moreover, the test is not whether the material *is* dangerous, but whether it "*could be*." Different batches of high explosive in different states of wetness or dryness could vary in risk, so the regulation sets the threshold low for allowing unrestricted open burning at the same facility.

Another email from the AQB suggests that since LANL transports the material to the burn site, the material is transportable. However, the test is not whether the explosive material is transportable at all, but whether it could be too dangerous to transport the material to another facility. Transportation within LANL is transportation within the same "facility," and even more to the point, transportation within TA-16 is transportation within the same facility. Only interior roads are used, not public highways. The distance from the HE manufacturing site to the open burning site is only about ¼ mile. Both sites are located on TA-16, not on "other facilities."

Finally, an email from the AQB expresses concern that accepting unrestricted burning of bulk HE, might open the door to unrestricted (and unregulated) burning of hazardous waste. This is not the case. HE waste is hazardous waste because of its reactivity. The destruction of HE at TA-16 is subject to permits and approvals from NMED's Hazardous Waste Bureau, in other words, it is subject to regulation under the hazardous waste regulatory regime like other hazardous waste. Hazardous waste that is not an explosive and not dangerous to move, would still be regulated as hazardous waste, and would not qualify for the unrestricted exception to the air open burning regulation.

*Conclusion.* For the above reasons, the historical AQB position is correct that open burning of bulk HE at TA-16 should be permitted as unrestricted.