



Reference

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 16 1997

OFFICE OF THE ADMINISTRATOR

Edward D. Baca
Lieutenant General, U. S. Army
Chief, National Guard Bureau
2500 Army Pentagon
Washington, DC 20310-2500

Dear General Baca:

This letter conveys my decision on the National Guard Bureau's (NGB's) dispute with EPA Region I's April 10, 1997 order requiring, among other things, pollution prevention measures to protect Cape Cod's sole source aquifer from the potential for further contamination associated with training activities at the Massachusetts Military Reservation.

This decision is based on a careful consideration of the information presented to me by Region I and the NGB. The NGB information specifically includes the May 7, 1997 written response to the order as well as the May 8, 1997 presentation by Deputy Under Secretary Sherri Wasserman Goodman, Major General Russell Davis, and other representatives from the Department of Defense and the NGB. In my review I have focused on the five issues Ms. Goodman and General Davis identified as their core concerns: EPA's use of RCRA as a basis for issuing the order; the impact of the order on training and military readiness; the absence of a formal dispute resolution provision in the order; the need for clarification of the air monitoring provision; and the need for clarification of the provision pertaining to unexploded ordnance. Attachment 1 to this letter addresses in detail the issues raised by the NGB in its April 18, 1997 letter.

Based on the information presented, I believe that Region I correctly determined that an imminent and substantial endangerment to human health may exist as a result of past and current activities at MMR. Both the scientific and legal arguments upon which EPA's order is based are very strong. The evidence cited in the order and additional DOD studies identified by our New England office since issuing the order support EPA's preventative approach to protecting the sole source aquifer from further degradation. In view of the paramount importance of Cape Cod's sole source of drinking water and EPA's obligation to prevent any further activities that experience and available data suggest could contaminate the aquifer, I believe that Regional

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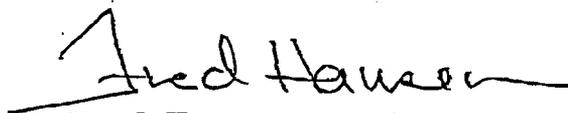
Administrator John DeVillars acted appropriately and responsibly in his issuance of the order. Therefore, I hereby uphold the order with these technical modifications identified in Attachment 2. It will become effective May 19, 1997.

In upholding this order, I am directing the Region to make the technical modifications in order to clarify its provisions relating to RCRA jurisdiction, air monitoring, and unexploded ordnance. These revisions are recommended by Regional Administrator DeVillars and are the result of good faith negotiations between EPA Region I and the NGB.

In reaching this decision, I am mindful of the difficulty of rescheduling to other bases those units which are presently scheduled to train at MMR in the immediate near term. I have supported Regional Administrator DeVillars' efforts to be responsive to this concern for those troops which cannot be rescheduled in the very near term and which would otherwise lose their combat readiness status. I know he has had extensive discussions with the NGB and DOD on this topic since the issue was first raised to him on April 14. I have encouraged Mr. DeVillars to continue discussions on this issue if the NGB so desires. I want to reiterate my and his position that this should only be in instances in the very near term where a compelling national security interest warrants such an exception to the order and only upon demonstration that all reasonable steps have been taken to make training available elsewhere.

I am also requesting Regional Administrator DeVillars to continue his discussions with the NGB and DOD to develop a process for resolving disputes that may arise under the order. It is my understanding that these discussions have been constructive, and it is my expectation that they will reach a successful resolution.

Sincerely,



Fred Hansen
Deputy Administrator

cc: Deputy Under Secretary
Sherri Wasserman Goodman

Attachments

Attachment 1

U.S. ENVIRONMENTAL PROTECTION AGENCY

MASSACHUSETTS MILITARY RESERVATION
DOCKET NO. SDWA I-97-1030/RCRA I-97-1031
RESPONSES TO ISSUES RAISED BY NATIONAL GUARD BUREAU

This memorandum presents EPA's responses to the issues raised by the National Guard Bureau (NGB) in its April 18, 1997 request for an opportunity to confer with the EPA Administrator.

Issues:

a. Whether EPA Region I has failed to follow EPA's own policy regarding deadlines and efforts at resolution as presented in EPA's Federal Facilities Compliance Strategy. Moreover, NGB questions the appropriateness of issuing the MMR AO, given NGB's compliance with the first Order issued by EPA Region I on February 27, 1997.

The Federal Facilities Compliance Strategy is a non-binding general compliance process document issued by EPA in 1988. For several reasons, the Strategy does not govern this action.

First, both statutes underlying the Order have more explicit instructions than the general processes described in the Strategy. For RCRA purposes, the Region believes the Strategy, to the extent it could be viewed as something more than a general outline of potential processes, was superseded by the 1992 Federal Facilities Compliance Act, Pub.L. 102-386 ("the FFCA").

Regarding the Safe Drinking Water Act, EPA's view, as expressed in the February 4, 1997 Draft Guidance on EPA's New Penalty Order Authority Against Federal Facilities Under the Safe Drinking Water Act Amendments (SDWA) of 1996, is to provide the head of the federal agency an opportunity to confer with the Administrator within 30 days after the order is issued before the order becomes final. The Region has provided that opportunity in the Order. In addition, this Order is premised not on penalties, but on endangerment. In such a potential endangerment situation, one cannot assert that even more of an opportunity to confer is required.

Second, I believe that even if the processes the Strategy was meant to describe were still in effect, those processes certainly would not have been meant to apply to a situation that may present an imminent and substantial endangerment.

Third, as a practical matter, the Order provides NGB with considerable process to make their case, process that is consistent with the Strategy while more focused on the Order's statutory bases. Not only does the Order afford the NGB the opportunity to confer with the Administrator, but also Paragraph

135 also provides an opportunity for the NGB to state its case to EPA as to necessity of particular requirements of the Statement of Work. That "safety valve" provision acts to mitigate any requirements which might be later found inappropriate or unnecessary.

I believe issuing this Administrative Order ("AO") is appropriate, even despite the NGB's compliance with the first AO. The NGB has so far met the deadlines set by the first AO, and while EPA does not agree completely with their groundwater study work plan, it is a reasonable first step. However, the first AO does not cover specifically all the facets of this Order, such as the lead removal from impact berms, and the suspension of use of propellants and pyrotechnics. Moreover, even though Respondent Massachusetts National Guard had announced a voluntary suspension of some practices without an Order, the Region would not be able to provide effective oversight of those agreements, nor could EPA ensure that the suspensions lasted for the time needed.

b. Whether the restrictions on training imposed in the MMR AO are necessary.

It is important to note, as General Baca does in the attachment to his April 18, 1997 letter, that not all training activities at MMR are suspended by the order. Furthermore, Respondents NGB and Massachusetts National Guard have not objected to the suspension of some training activities under this Order, such as the use of explosive artillery and mortar shells and the use of lead bullets in small arms.

The NGB has, however, objected to the restrictions on the use of propellants and pyrotechnics. Given the information on hand, I find that the restrictions on use of propellants and pyrotechnics are reasonable and necessary. In the limited sampling in the area where propellants were used, hazardous constituents and byproducts of propellants in soils (2,4-DNT, dibutylphthalate, and n-nitrosodiphenylamine) and groundwater (2,4-DNT) have been found.

At the one gun position which has been sampled, DNT was found in the soil in 15 of 18 locations. Also, although contaminants from propellants have not yet been found in groundwater at levels that exceed drinking water standards, 2,4-DNT was found in soil at the gun position at 17,000 ppb, a level that could leach to groundwater in amounts that may present a threat. Another constituent of propellants used at MMR, dibutylphthalate, was found in soils at the same gun position at levels up to 16,000 ppb. N-nitroso-diphenylamine, a compound formed during firing of three types of propellants used at MMR, was found in at 930 ppb in soil at the same gun position. This compound was also found in soil in the impact area at .38 ppm. N-nitrosodiphenylamine is classified by EPA as a probable human carcinogen. Moreover, the

distribution of DNT over a fairly broad area at the gun position suggest an association with routine use of propellants, rather than disposal.

The soils and groundwater in the Training Range and Impact Area to date have not been analyzed for the full range of constituents found in pyrotechnics. However, limited sampling does show the presence of some hazardous constituents of pyrotechnics (TNT, acetone) in soil and groundwater at MMR. Their presence indicates a potential connection between pyrotechnic use and soil and groundwater contamination.

Furthermore, many pyrotechnics of the types used in the past and in the present at MMR may cause "widespread and uncontrollable pollution of the environment" where they are deployed, according to a 1978 U. S. Army Medical Research and Development Command study. The study also reported that the aquifer under and river next to Pine Bluff Arsenal in Arkansas (where pyrotechnics are manufactured and field tested) are polluted by residues of pyrotechnics. The 1978 study recommends further testing to evaluate in more detail the health effects of using the pyrotechnics studies. Some of the conclusions in the 1978 study relate directly to pyrotechnics used in the past and present at MMR:

- HC AN-M8 smoke grenades have been used and continue to be used at MMR. They contain hexachloroethane (HCE), a chlorine carrier for screening smokes and a possible human carcinogen. HCE inhibits functions of the central nervous system, and can be absorbed through the gastrointestinal tract, lungs, and skin. EPA's lifetime Health Advisory is 1 ppb. The report notes that, "[t]his compound is discharged into the environment during deployment of these smoke canisters" and that "[d]eployment of smoke canisters can lead to widespread pollution of this chemical and possible human exposure."
- M18 yellow and green smoke grenades used in the past and the present at MMR contain benzanthrone, a dye highly toxic to the blood and liver in subacute or chronic doses. The 1978 report states that, "[d]ischarge of this dye during use of the smoke canisters is widespread and uncontrollable."
- M18 green smoke grenades used at MMR also contain 1,4-bis(p-toluidino)anthraquinone, a green dye. The 1978 report states that "[U]ncontrolled pollution results from the Army use of this material... Use of smoke canisters leads to uncontrolled human and environmental contamination from this compound... This type of pollution is sporadic and uncontrollable and can lead to significant human exposure."

- M18 violet smoke grenades used in the past and present at MMR contain 1-4-diamnio-2,3-dihydranthraquinone, a violet dye. According to the 1978 report, "Environmental discharges [of this substance] could lead to significant human exposure." "Uncontrolled discharge into the environment occurs during use of these smoke grenades."

Given the findings of constituents of some pyrotechnics, and the Army studies which indicate that the use of pyrotechnics may lead to uncontrolled contamination, it is appropriate to suspend the use of these materials. The order explicitly provides in Paragraph 135 a mechanism for the NGB to seek a review of EPA's suspension of the use of pyrotechnics and propellants, among other things, if the NGB can demonstrate that the threat of harm resulting from the use of these materials is so limited that the suspension is not warranted.

c. Whether EPA Region I's characterization of certain RCRA and SDWA legal requirements is correct, and whether it is consistent with EPA Headquarters' position.

In the May 8, 1997 conference, Respondent has specified its concern with RCRA jurisdiction in this action, in light of the Military Munitions Rule, 62 Fed. Reg. 6622 et seq. (February 12, 1997).

The Munitions Rule does not eliminate RCRA jurisdiction in this matter. Contamination from past practices has shown up in limited groundwater sampling off-range (detection of TNT in groundwater downgradient of the Impact Area). I believe that constitutes a statutory solid waste under the Munitions Rule, thereby providing RCRA jurisdiction.

Respondent asserts that two particular activities under the Order -- the "sweeps" of unexploded ordnance (UXO) and the lead removal actions -- are beyond the scope of the Munitions Rule. However, RCRA § 7003 jurisdiction is premised first on the endangerment shown, and these activities are rightfully viewed as necessary to abate that endangerment. Moreover, given the Order's dual jurisdiction, even if such actions were beyond RCRA's scope, they are necessary to address the endangerment caused by contaminants under SDWA § 1431.

I see no inconsistencies between the Region's Order and EPA Headquarters' policy. As I stated at our May 8 conference, I stand firmly behind the Region's use of RCRA jurisdiction in this matter.

Nevertheless, because the order as modified does not permit the use of propellants and pyrotechnics, there is no need for air monitoring at this time and RCRA jurisdiction is not required to ensure that air is monitored. That being the case, in an effort

to resolve this matter, I am directing the Region to modify the Order to proceed solely pursuant to the Safe Drinking Water Act. The removal of RCRA § 7003 from this order is without prejudice to EPA's ability to assert RCRA § 7003 jurisdiction at MMR or other military ranges under appropriate circumstances in the future.

d. Whether EPA Region I's finding of the alleged existence of an imminent and substantial endangerment to the environment and public health is correct.

The Order is fully justified under the law of endangerment under either statute. The statutory standard under SDWA § 1431 and RCRA § 7003 is the same: "may present and imminent and substantial endangerment". This statutory threshold is reinforced by the legislative history of § 1431, and judicial case law regarding endangerment. The circumstances of this Order, namely the data points demonstrating soil and groundwater contamination of contaminants used in ongoing activities at MMR, directly above the sole source aquifer, in an area where very little sampling has been undertaken, plainly exceeds the threshold for action.

e. Whether certain requirements in EPA Region I's application of the MMR AO may actually be potentially harmful to human health, and whether they are cost effective.

This concern appears to pertain to UXO. In the Order, EPA requires the Guard to undertake periodic UXO sweeps, based on statements by the Guard to the Region during its information gathering that UXO is of concern for leaking into the soil and groundwater when it remains in place for a considerable period of time.

Since issuance of the Order, the Department of Defense has provided information to the contrary -- that UXO does not deteriorate over time, and that in fact a greater public safety issue could be created by attempting to detonate UXO. I have directed the Region to modify the Order to reflect that UXO sweeps are to be conducted under the Order for the purpose of addressing the safety of workers only.

Although cost-effectiveness is not a formal finding necessary for the Order, the Agency has carefully considered costs and benefits in both issuance of the Order and in subsequent proposals to address NGB concerns. Moreover, while the Agency recognizes the costs associated with redirecting training away from MMR, any cost-effectiveness analysis should also consider the costs associated with contamination of the sole source aquifer.

Attachment 2

The Regional Administrator's Order of April 10, 1997 is upheld, as modified by the provisions listed below. A revised order reflecting the following modifications will be provided to the National Guard Bureau and Massachusetts National Guard.

1. Due to the suspension of training activities referenced in Section II.A. of the Scope of Work, activities necessitating the air monitoring required by the Scope of Work are currently not being undertaken. Therefore, EPA is removing Section 7003 of the Resource Conservation and Recovery Act (RCRA) as a basis for jurisdiction to require the actions in the Statement of Work. Although the basis for RCRA jurisdiction over the activities at the MMR Training Range and Impact Area is clear, the imminent and substantial endangerment provision of Section 1431 of the Safe Drinking Water Act alone provides jurisdiction for the actions required in the Order as modified. The removal of RCRA § 7003 from this Order is without prejudice to EPA's ability to assert RCRA § 7003 jurisdiction at MMR or other military ranges under appropriate circumstances in the future.
2. Respondent NGB has recently provided documentation which indicates that unexploded ordnance does not deteriorate or leak into the environment, contrary to its earlier statements. Therefore, Section II.D. of the Scope of Work is modified by deleting the words "to reduce the potential for UXO to deteriorate or leak into the environment." At the beginning of Section II.D., the words, "Within those areas necessary to ensure safe access for personnel performing the soil and groundwater sampling required by the February 27, 1997 Order, Respondents shall..." are added.
3. Section II.F. of the SOW is deleted. In the event that any training activities suspended under this order are allowed to resume at MMR, it is EPA's expectation that appropriate air monitoring of those activities will be undertaken. EPA will use its full legal authority, including, if necessary, the Resource Conservation and Recovery Act, to insure that appropriate air monitoring is undertaken.