



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

13 January 2010

Colonel Francis M. McGinn
Post Commander MAANG
Camp Edwards, MA 02542

RE: Training Range and Impact Area, Massachusetts Military Reservation, EPA Docket No. SDWA I-97-1030, Proposed Limited Authorization for M116A1 Hand Grenade Simulator (DODIC L601) Training

Dear Col. McGinn,

In a letter dated 26 October 2009, the Massachusetts National Guard (MANG), on behalf of itself and the National Guard Bureau (NGB), requested the United States Environmental Protection Agency (EPA) to modify the Scope of Work (SOW) to Administrative Order SDWA I-97-1030 (AO2) issued pursuant to Section 1431(a) of the Safe Drinking Water Act with respect to the Massachusetts Military Reservation (MMR). Specifically, the MANG requested approval to resume training using the reformulated pyrotechnic device M116A1 Hand Grenade (DODIC L601).

This letter constitutes EPA's proposed agreement to modify AO2 to allow a limited authorization for a two year period, under which MANG personnel, and personnel from other military agencies, will be permitted to conduct pyrotechnic training utilizing the reformulated pyrotechnic device – M116A1 Hand Grenade (DODIC L601). This proposed response is subject to a thirty day public comment period starting on 14 January 2010 and ending on 16 February 2010.

Background:

In its efforts at protecting the sole source Cape Cod Aquifer, EPA has issued four administrative orders pursuant to the Safe Drinking Water Act. The second Administrative Order, known as AO2, was issued in May 1997. Among other provisions, AO2 includes the suspension of particular military training activities at the Training Range and Impact Area of MMR (AO2, Scope of Work, Section II.A.1). Among the activities suspended were "[a]ll use of pyrotechnics at or near the Training Range and Impact Area". (AO2, Scope of Work, Section II.A.1.f).

AO2 also includes provision for modifying Scope of Work Requirements based on specified demonstrations. (Paragraph 125). If a Respondent to AO2 believes that a

modification to the Work specified pursuant to AO2 is necessary and appropriate, the Respondent may petition EPA for a determination on the potential modification. Included among the bases for such a modification is “documentation demonstrating that the use of a ... pyrotechnic that is suspended pursuant to this Order does not present a threat of harm to the public or the environment that would warrant its continued suspension under this Order”.

October 26, 2009 NGB/MANG Petition for Modification:

As described above, the NGB/MANG petition requested a modification to allow use of the DODIC L601 M116A1 Hand Grenade for training purposes. According to the petition, this M116A1 Hand Grenade Simulator contains none of the hazardous constituents listed in Paragraphs 19 thru 22 of AO2, nor does this device contain perchlorate. The petition also states that these items are comprised of “black powder, aluminum and silica sand” and that “the grenade simulators contain no constituents of concern that would present a threat of harm to the public or the environment.”

EPA Findings:

Based on a careful review of the information provided, EPA does not believe that the statements made in the petition and referenced above are completely accurate. Per the project note attached to the 26 October 2009 petition, Testing of Artillery and Grenade Simulators at Camp Edwards (dated 13 August 2009); the M116A1 contains the following constituents:

40 grams Flash Composition

8% Flaked Aluminum

92% Black Powder

41 milligrams Fuse Igniter Charge

88% Potassium Chlorate

10% Charcoal

2% Dextrin

2 grams Primer Paste

67% Potassium Nitrate

14% Charcoal

10% Binder Cell Nitrate

9% Sulfur

Safety Fuse

Cotton

Black Powder

Primer Paste

Ignition Blasting Fuse Assembly (M3A1)

Steel Wire

67mg Cadmium Chromate (49% Cd, 23% Cr)

Ferrule

Steel Wire

67mg Cadmium Chromate (49% Cd, 23% Cr)

0.3 grams Copper Alloy Ignition Charge Wire Assembly

95% Copper

4.92% Zinc

0.05% Iron

0.03% Lead

Some of the constituents described above can be harmful to public health and the environment depending on the quantity. In a letter dated 12 January 2010, the Mass Guard has indicated that they will use no more than 1000 grenades per year in an area of 1 acre in size at MMR. EPA finds that given the number of items to be used by the Mass Guard in a given year, the size of the area where the items will be used and the amount of contaminants contained in the M116A1 grenade, EPA does not expect that the use of these items in this manner will present a threat to the sole source aquifer.

Proposed Modification:

Based on the above discussion and findings, EPA submits for public comment a proposal to modify AO2 as specified below. EPA hereby proposes to modify AO2, Section II, A., f., Response Activities, to allow a limited authorization to use one type of pyrotechnic device, the M116A1 Hand Grenade (DODIC L601), for a two year period to commence the first day of use. The specific modification proposed at this time by EPA is to modify AO2, Scope of Work, Section II.A.1.f, to read as follows:

f. All use of pyrotechnics at or near the Training Range and Impact Area; provided however, that the use of the M116A1 Hand Grenade (DODIC L601), in quantities no greater than 1000 grenades per year in any area of 1 acre in size shall not be prohibited during the two-year period specified for limited authorization dated 13 January, 2010.

i. The limited authorization is conditioned upon compliance with all conditions established by the Environmental Management Commission.

ii. The limited authorization does not extend to any other pyrotechnic device or hand grenade simulator.

iii. The limited authorization includes a requirement that, sixty days prior to the end of the two year authorization period, the MANG shall submit a summary report on the use and environmental impacts of the M116A1 Hand Grenade simulator. This summary report shall identify the number of items used and the area over which they were used during the authorization period. This report shall also present sampling and analysis data, collected according to a sampling and analysis plan developed jointly with EPA and the EMC, to demonstrate environmental impacts from the use of this hand grenade simulator. The EPA will evaluate this report and determine if future continued authorization shall be authorized.

If this proposed action is made effective, it would not modify any other provision of the AOs.

Procedure:

EPA is accepting public comments on this proposal until 16 February, 2010. All public comments must be submitted in writing, and may be sent to:

Lynne Jennings
5 Post Office Square, Suite 100
Mail Code OSRR07-3
Boston, MA 02109-3912

At the close of this public comment period, EPA will review public comments, make any appropriate changes and issue its final decision.

If you have any questions about the terms of this modification, please contact me at 617-918-1210 or Jennings.lynne@epa.gov.

Sincerely,



Lynne A. Jennings
MMR Team Leader

cc: Mark Begley, EMC
Len Pinaud, Mass DEP
Mike Ciarianca, MANG
Jo-Anne Palmer, MANG
Kent Gonser, IAGWSP