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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND, ATLANTIC
6506 HAMPTON BLVD
NORFOLK, VA 23508-1278

IN REPLY REFER TO:
5090
EV31KRC
June 1, 2009

Mr. Edwin A. Irizarry Lugo,
Secretary Governing Board
Puerto Rico Environmental Quality Board
P.O. Box 11488
San Juan, PR 00910

SUBJECT: RESOLUTION R-09-2-8 INTENT TO PRELIMINARILY APPROVE A
VARIANCE UNDER THE REGULATIONS FOR THE CONTROL OF
ATMOSPHERIC POLLUTION (RCAP) TO ALLOW OPEN BURNING OF
THE VEGETATION ON THE FORMER VIEQUES NAVAL TRAINING
RANGE VIEQUES ISLAND, PR

Dear Mr. Lugo:

We have received the Puerto Rico Environmental Quality Board's Preliminary Intent to Approve the Variance that addresses the Navy's request for a Variance in the Regulations for the Control of Atmospheric Pollution (RCAP), to allow controlled burning of vegetation to support munitions removal activities at the former Vieques Naval Training Range Vieques Island, PR.

The Navy has reviewed the Intent to Approve the Variance. Based on our review of Section VIII of the document, we have provided the enclosed clarifications (enclosure (1)) for your consideration.

We would welcome the opportunity to meet with you to discuss these clarifications, as well as provide any technical clarification of the controlled burn plan documents, that have been previously submitted to you. Once we concur on the conditions, the Navy will incorporate the changes into the final burn plan documents.

If you have any questions, or request a call to further discuss the comments, please do not hesitate to contact our point of contact Mr. Christopher Penny at 757-322-4815 or by e-mail: christopher.penny@navy.mil.

Sincerely,

R. D. CURFMAN
Environmental Business Line Manager
By direction of the Command

Enclosure (1)

Copy to:
Environmental Protection Agency (Daniel Rodriguez)
Fish and Wildlife Services (Richard Henry)
Puerto Rico EV Quality Board, (Leimarys Delgado)

ATTACHMENT A

Navy's Response to the Commonwealth of Puerto Rico Office of the Governor Environmental Quality Board Intent to Preliminarily Approve a Variance Under the Regulations for the Control of Atmospheric Pollution (RCAP) to allow open burning of the vegetation on the Former Vieques Naval Training Range Vieques Island, PR

After evaluating the administrative file and the comments submitted during the public hearings process the Office of the Governor Environmental Quality Board recommended the following:

- The application filed by the Navy complies with the requirements established in Rule 301 B) 1. of the RCAP.
- The adoption of the conditions recommended by the Air Quality Section are recommended, except for the following:

1. Condition F:

A clarifying word is added, which is the term generally used for the compounds that are used to begin a fire or a burn. The condition will read as follows:

You will use an accelerant (diesel or gasoline) to begin the burn. The use of tires, cork, dangerous waste, coated electrical wiring, or any other similar material to initiate the burn is prohibited.

The Navy concurs with this recommendation.

2. Condition T:

The party who is going to receive the notifications and reports is added, who in this case would be the Air Quality Manager. The condition will read as follows:

All of the notices and reports required by this variance will be sent to the following address:

Air Quality Area Manager
Air Quality Section

Box 11488, San Juan, PR 00910
Alternatively, you may send them via fax to
(787) 756-5906.

The Navy concurs with this recommendation.

3. Condition L:
This condition is eliminated because our understanding is that condition J includes the wind conditions at which the controlled burn will be carried out. Conditions J and M provide that works will cease immediately if wind conditions arise which are not favorable for the controlled burn, there is dispersion of smoke, or if possible NAAQS violations may be caused.

The Navy concurs with this recommendation.

4. The following is a breakdown of the variance conditions which include the above referenced recommendations:
 - a. The Navy shall maintain a copy of this application at all times. Same must be available for inspection by the Board's technical staff.

The Navy concurs with this recommendation.

- b. The controlled burn of vegetation in association with the Munitions Removal Plan will be carried out in accordance with the Prescribed Burn Plan. In the event of any change, you must submit it to the Board for evaluation and approval.

The Navy concurs with this recommendation.

- c. Before initiating the controlled burn works, you will submit to the Board a detailed implementation schedule for review and approval. The plan must be submitted at least 30 days prior to the beginning of the works. Any change in the itinerary approved must be submitted to the Board at least three working days in advance so that the Board can have the opportunity to

have an observer present in the observation area.

The Navy concurs with this recommendation.

- d. The total area covers 192 acres. The controlled burn of vegetation will not exceed 75 acres per day.

The total area covers 75 acres. As a result, the Navy concurs with the recommendation that the controlled burn of vegetation will not exceed 75 acres per day.

- e. The controlled burn of vegetation will not be able to last for a period greater than 12 consecutive months, starting from the date of the first authorized burn. This 12-month period must be selected within the application's applicable period, which will be 3 years, starting from the date of the variance's approval. Each individual burn will be initiated between 8:00 a.m. and 12:00 noon.

The Navy concurs with this recommendation.

- f. The Navy shall use an accelerant (diesel or gasoline) to begin the burn. The use of tires, cork, hazardous waste, treated wood, material which contains asbestos, coated electrical wiring, or any similar material to initiate the burn.

The Navy concurs with this recommendation.

- g. The Navy shall have an observer present (from the observation area) at all times while the burn occurs until the fire is completely extinguished and there is no visible fire or flames in the area.

The Navy concurs with this recommendation.

- h. The Navy shall have available all the necessary equipment, such as water supply, hoses, shovels, sand, etc. to control the burn, if the need arises. It shall

likewise coordinate works with the Fire Department so that it can be available to help control the burn, if necessary.

The Navy concurs with this recommendation.

- i. Fire breaks shall have a minimum of 20 feet in width.

The Navy concurs with this recommendation.

- j. Prior to the commencement of each controlled burn, the Navy shall verify weather conditions to ensure that conditions are favorable. The burn shall not commence if there are no favorable conditions for it, such as strong winds (greater than 20 mph), temperature inversion, if relative humidity is not between 30 – 70 %, if there is an air stagnation advisory by the National Weather Service, or natural events (volcano ashes or dust from the Sahara). Burn works will cease immediately if the conditions favorable for the burn have changed and if they could cause possible violations to the NAAQS Air Quality Standards for particulate matter and carbon monoxide.

The Navy concurs with this recommendation.

- k. The Navy shall not initiate a burn during an air pollution episode declared under Rule 107 of the RCAP. Likewise, in accordance with RCAP rule 107 (B)(1), when the Board declares an air pollution alert, notice or emergency and decides that said condition requires immediate action for the protection of human beings' health, the Board will order the persons who are causing or contributing to the atmospheric pollution to reduce or immediately discontinue the emission of pollutants, in order to eliminate it.
- l. The Board may request of the Navy that it extinguish the fire or abstain from initiating

the burn during periods of inadequate smoke dispersion, excessive visibility impairment or at any other time in which public health and safety could be adversely affected.

Due to the potential for munitions to be accidentally detonated during the controlled burn, the Department of Defense Explosives Safety Board (DDESB) and the Naval Ordnance Safety and Security Activity (NOSSA) requires that all field personnel to maintain a safe distance away from any potential detonations within the controlled burn area, this area is the explosive safety exclusion zone. The size of the exclusion zone will depend upon the type and extent of munitions that are identified within the controlled burn area. As discussed during the public hearing, the Navy does not intend to send personnel into the exclusion zone, or areas containing munitions, to extinguish the fire. However, the Navy will establish secondary fire breaks and will have equipment available outside areas containing munitions in order to extinguish fires that spread beyond the exclusion zone.

- m. The Navy must use emission reduction techniques to minimize emissions stemming from fire such as, but not limited to:
 - I. minimizing the areas to be burned
 - II. extinguishing smoldering burns
 - III. burning before precipitation.

The Navy concurs with this recommendation.

- n. Coordinate burn works with the Board to ensure that the project remains inside the conditions specified in the plan, or if additional contingency measures are required.

The Navy concurs with this recommendation.

- o. The Navy will conduct monitoring

according to the Monitoring Plan approved by the Board. Any additional change in the Monitoring Plan must be submitted previously to the Board for evaluation and approval. The following are the sampling stations which will be used during the controlled burn:

Location	Parameters
LIA	Meteorology
Isabel Segunda	PM ₁₀ , CO, PM _{2.5}
Camp Garcia	PM ₁₀ , CO, PM _{2.5}
OP-1	PM ₁₀ , CO, PM _{2.5}
OP-5	PM ₁₀ , CO, PM _{2.5}
Boat House	PM ₁₀ , CO, PM _{2.5}
Boundary between Isabel Segunda & Camp Garcia	PM ₁₀ , CO, PM _{2.5}

Only the Isabel Segunda and Camp Garcia stations will be used to demonstrate NAAQS compliance.

The Navy concurs with EQB's recommendation that only Isabel Segunda and Camp Garcia, where the public may be exposed to air emissions from the controlled burn, be used to demonstrate NAAQS compliance. As a result, the Navy proposes to install the appropriate equipment at these stations and utilize EPA designated methods to monitor for PM₁₀, PM_{2.5}, and CO. For the other monitoring stations (OP-5, Boat house, and the boundary between Isabel Segunda and Camp Garcia [PR-1]) the Navy proposes to monitor for PM₁₀ (which includes PM_{2.5}) using the existing monitoring stations that utilize EPA equivalent methods. Although these four stations do not have the capability monitoring directly for PM_{2.5} or CO, the Navy proposes to provide supplemental monitoring for CO using 8-hour composite samples, collected with Summa canisters, for 24 hours after the initiation of the burn. In addition, the Navy proposes to monitor for metals and explosives, using the EPA equivalent methods previously approved by EQB and EPA. Because PM_{2.5} is a subset of PM₁₀ the PM₁₀ monitoring at these locations will provide a conservative estimate of the PM_{2.5} levels near the source of the controlled burn. Although PM_{2.5} is a statistical standard requiring three years of monitoring data, this information will provide a conservative indicator for PM_{2.5} emissions.

- p. The Navy shall continually review monitoring network results to ensure that the NAAQS Air Quality Standards are not being exceeded for any of the pollutants whose presence was detected through the modeling, especially in populated areas. The Navy shall verify that the concentrations for carbon monoxide and particulate matter obtained in the populated areas do not exceed the values considered to be unhealthy and very unhealthy in the Air Quality Index. In the event that the concentrations arrive at or exceed those levels, the Navy shall begin to implement the NAAQS Exceedance Contingency Plan.

The Navy concurs with EQB's recommendation that only Isabel Segunda and Camp Garcia, where the public may be exposed to air emissions from the controlled burn, be used to demonstrate compliance with the NAAQS and that monitoring data from the other (existing) monitoring stations be used to assess dispersion patterns. The Navy agrees to install the equipment at these two stations to monitor for PM₁₀, PM_{2.5}, and CO. The Isabel Segunda and Camp Garcia stations will be configured with EPA equivalent methods for CO and PM₁₀ (BAM-1020) and an EBAM for PM_{2.5}. These are continuous monitors. The existing monitoring stations (OP-5, Boat house, and the boundary between Isabel Segunda and Camp Garcia [PR-1]) do not have line power so the Navy proposes to use the existing monitoring equipment EBAMs for continuous monitoring of particulates and SUMMA canisters for time integrated CO monitoring.

- q. The Navy shall immediately inform the Board if during the monitoring performed new elevated levels of the monitored pollutants (PM₁₀, PM_{2.5}, or CO) are measured, which violate or have the potential to violate National Ambient Air Quality Standards caused by the vegetation burn. The Navy shall notify the board in writing no later than 24 hours after the incident. This notification shall include a specific description of the incident, the value of the monitored parameters, date and time of the event, causes of the incident and corrective measures taken or to be taken. It must

also indicate the measures to be taken to ensure that this incident does not occur again.

The Navy concurs with this recommendation.

- r. No later than 30 days after the month for which it is representative, the Navy shall send a monthly report to the Board with the following information:
 - i. date on which the burn occurred.
 - ii. compartments burned per day.
 - iii. total area of the burn per day
 - iv. summary with the daily air monitoring results performed in the place.

The Navy concurs with this recommendation.

- s. All of the notifications and reports required by this variance will be sent to the following address:
 - Air Quality Area Manager
 - Environmental Quality Board
 - Air Quality Section
 - Box 11488, San Juan, PR 0091Alternatively, they may be sent by fax to (787) 756-5906.

The Navy concurs with this recommendation.

- t. The Navy shall maintain records with the checklists included in the Prescribed Burn Plan before the start of each burn. These will be available for inspection by the Board's technical personnel.

The Navy concurs with this recommendation.

- u. The Navy shall take necessary contingency measures to minimize the

impact of smoke in sensitive areas.

The Navy concurs with this recommendation.

- v. The authorization to conduct the controlled burn by this variance may be revoked or suspended for fire prevention reasons or during adverse weather conditions, or for violations of any term, condition of this variance, or of applicable laws and regulations.

The Navy concurs with this recommendation.

- The Navy must file final documents and incorporate the following comments:
 1. Must reflect that the total area for the prescribed burn per day is 75 acres.

The Navy concurs with this recommendation.

2. The fire control lines (fire breaks) must have a minimum of 20 feet in width.

The Navy concurs with this recommendation.

3. The Navy shall be required to include in its Contingency Plan the concentrations classified as unhealthy and very unhealthy for sensitive groups, established in the Air Quality Index. It must include carbon monoxide (CO) pollutants, and particulate matter smaller than 10 microns (PM₁₀) and PM_{2.5}. The following table includes the unhealthy and very unhealthy concentrations for sensitive groups:

Pollutant	Unhealthy for Sensitive Groups	Very Unhealthy
PM ₁₀ (24-Hours)	150 µg/m ³	250 µg/m ³
PM _{2.5} (24 Hours)	35.5 µg/m ³	55.5 µg/m ³
CO (8-Hours)	9ppm	12ppm

In addition, the Navy must indicate that the Contingency Plan must be implemented if the concentrations in the air monitors used to verify NAAQS compliance reach the above-referenced levels.

The Navy concurs with this recommendation.

- After incorporating the final documents, the Navy shall send the final documents to the Air Quality Section of the Environmental Quality Board.

The Navy concurs with this recommendation.

- The Air Quality Section of the Environmental Quality Board (EQB) shall review the final documents submitted to the Navy and determine if they are complete. Once the Air Quality Section of the EQB has determined that the final documents submitted by the Navy are complete, it must send them to EPA Region 2 in compliance with Rule 301 B) 2. of the RCAP, for its review and approval. Together with the final documents the Air Quality Area of the EQB must include the requirements from the preliminary variance approved by the Governing Board of the Environmental Quality Board.

The Navy concurs with this recommendation.

- After receiving the finding from EPA Region 2, the Air Quality Section shall notify the Governing Board of the Environmental Quality Board, to take final action on the requested variance.

The Navy concurs with this recommendation.