Desert Citizens Against Pollution

PO Box 845 * Rosamond, CA 93560

Ms. Barbara Lee, Director

Department of Toxic Substance Control

800 Cal Center Drive

Sacramento, CA 95826-3200 January 21, 2015

Dear Director Lee,

As you know, the Resource Conservation and Recovery Act was passed by Congress in 1976. The Environmental Protection Agency has passed various implementing regulations since then. The operating language on open burning/open detonation of hazardous waste which are waste explosives are contained in Title 40, Section 266.382.

Title 40 Section 266.382

"Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives. Waste explosives include waste which has the potential to detonate and bulk military propellants which cannot safely be disposed of ***through other modes of treatment***." *emphasis added*.

As you can see, from the plain language of the regulation, the open burning/detonation of hazardous waste explosives would be prohibited under the statue if safer modes of treatment were available. Moreover, in the preamble to the rule in 1980, the EPA states:

"Although not proposed as an interim status standard (under RCRA) a ban on open burning of hazardous wastes was contained in the General Facility Standards of the proposed regulation. This requirement has been incorporated into the interim status standards for thermal treatment because the potential human health hazards associated with the practice dictate that open burning be ended now. Comments received on the proposed standard centered around the military's need to dispose of explosives in the open. The Agency agrees that open burning and open detonation are currently the only alternatives for disposal of most munitions, and thus a modified and more detailed version of the proposed variance for waste explosives has been retained in the final rules." 45 Fed. Reg. at 33,217

Over the past 15 years, the Department of Defense Explosives Safety Board (DDESB) has certified a number of technologies as safe for the destruction of hazardous wastes which are

explosive. Those technologies are now in use by the Department of Defense and the private sector for the destruction of explosive hazardous waste. Some of these technologies were part of a joint technology assessment project which included the Department of Defense, the Environmental Protection Agency, the states affected by our nation's chemical weapons stockpile, and citizens from those states, (the Assembled Chemical Weapons Assessment Program or ACWA). Some of these technologies have been developed by other countries facing the challenge of destroying older stockpiles of munitions in Europe and Asia.

It is time to recognize that the exclusion adopted by the EPA in 1980 for the open burning/detonation of waste explosives is no longer relevant. Alternatives, which are much safer, and in some cases less expensive, clearly exist. These alternative technologies are already hard at work: on Navy aircraft carriers, in the nation's chemical weapons demilitarization program, and in the conventional weapons destruction program.

These technologies are the fruits of our intellectual endowment and our country's strong commitment to safeguarding both the health of our nation's residents and the viability of our natural resources. It is time that we embrace the benefits of our all our hard work and adopt the use of these advanced treatment technologies for the disposal of our nation's military wastes.

We are in the process of compiling a list of all of the advanced treatment technologies approved by the Department of Defense Explosive Safety Board (DDESB). We are aware of five technologies currently which have been issued DDESB certificates and RCRA permits by various states: Dynasafe owned by a German conglomerate , DAVINCH owned by Kobe Steel, Controlled Detonation Chambers owned by CH2M Hill and UXB, Super Critical Water Oxidation owned by General Atomics in San Diego, CA and Hydrolysis, which, to our knowledge, is primarily owned and operated the by the US Army.

Technology	**States Permitted to Operate In (tentatively)**
Super Critical Water Oxidation	Louisiana, Kentucky, Illinios, Utah
Dynasafe	Utah and Kentucky
DAVINCH	Kentucky
Controlled Detonation Chamber	Utah, California, Kentucky, Maryland
Hydrolysis	Illinois, Maryland

We believe that these technologies would all be available for use to destroy hazardous wastes generated at Edwards Air Force base which are now destined for open burning/open detonation. Since all of these technologies have certificates to operate from the Department of Defense to destroy the exact kinds of waste being generated at Edwards, it is simply not defensible for the Air Force to say that these technologies are not available.

It should be noted that the Health Risk Assessment done on the OB/OD facility at Edwards AFB would not conform to the new health risk assessment policies issued by the Office of Environmental Health Hazard Assessment. If the DTSC continues in its permitting of this facility, at the very least, the emissions inventories should be updated and re-run in the HARP model which the OEHHA recently updated and maintains.

Our earlier comments regarding how the state can say that an adequate risk assessment was performed without knowing what the constituents of the waste being burned are, was responded to by stating: "The DIER does not go into detail with this information because its purpose is to disclose impacts to the environment from the treatment of the waste by OB/OD. Therefore, the emissions or contaminants of concern that are generated from the treatment of the waste are the focal point. Not the chemical makeup of the wastes on their own." How can you know what is being emitted without knowing what is in the waste?

Moreover, at 4.2.1.5 in Appendix B of the Health Risk Assessment it states that …"no assumptions were made in regards to estimating possible emissions of uncombusted constituents from and PEP (waste explosives) categories." One of the premier critiques of OB/OD is that it does not combust all the waste, and destruction efficiencies of 80% are often referenced in the literature. This is precisely why groundwater contamination has occurred so often at OB/OD facilities…..what ends up in groundwater is waste that was clearly not combusted. Why then, does the risk assessment make no estimate of the amounts of uncombusted chemicals that will be going into the air? This oversight understates risks from the operation of the OB/OD facility.

There are also estimates of dioxin and furan emissions from only 4 PEPS of 18 and 3 PEPS of 18, but it is possible that all 18 of the categories of PEPs (waste explosives) would produce dioxins and furans and possibly other products of incomplete combustion. This also greatly understates the risk from the operation.

It is clear from the numerous tests that DOD has run on the emissions from OB/OD that the DOD does not know what is being emitted from these units……that uncertainty is greatly increased when you do not know what the constituents of the waste. The DTSC continues to state that the HRA ran over 140 chemicals of concern. There are over 80,000 chemicals in commercial production in this country, and over 3500 chemicals produced at more than a million pounds per year. We are not placated that the HRA ran 140 of these. The HRA needs to be run with the chemicals that are actually in the waste or emitted from burning the waste.

The technical report reviewing the applicability of alternatives in the Appendix of the DEIR states:

Staff members at AFRL indicated that AFRL traditionally burns up to 400 lbs/month of waste propellant at their OB unit. Of this amount, approximately 15–30 lbs/month of the waste propellant are generated from current R&D facilities, while the remainder are larger *propellant items removed from storage at AFRL*. Along with the waste propellant, inert items such as gloves, paper towels, and the VelostatTM bags used to store the waste are considered reactive waste and are treated in the OB unit. The waste streams evaluated in this report are the approximately 30 lb/month of waste PEP and associated PEP-contaminated waste.

From this description it would appear that the vast majority of hazardous waste destined to be open burned at Edwards AFB has been accumulated and is being stored. There is a prohibition of such activity in RCRA, hazardous waste is not to be stored over 90 days without special waivers. If such waivers were granted, they should have been publicly noticed. The storage of hazardous propellant cannot go on indefinitely, there certainly must be a plan to dispose of this waste or to recycle it. I do not see reference to this in the permit or in the DEIR.

We include, by reference, our previous comments and those of other commenters on the draft permit here for the record.

Thank you for your review of our appeal, we look forward to working with as this process unfolds.

Cordially,

Jane Williams, Director
661-256-2101 office