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Mr. Stephen Koenick, Chief
Low-Level Waste and Projects Branch
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Mr. Koenick,

When I filed the 2.206 petition regarding possession license SUC-1593 for depleted uranium (DU) at Pohakuloa Training Area (PTA) in Hawaii, one of the issues I presented was that the amount of DU present appeared to be significantly greater than the license permitted. My claim was based on a photograph provided in an Army contractor report showing a tail assembly of a main warhead of the Davy Crockett system with a yellow coating that very likely could have been DU oxide. My contention was that dummy warheads were used for training and that to simulate ballistics of the fissionable warhead, DU was used just as it was used in the spotting rounds to simulate ballistics of the fissionable warhead.

The Army provided a response that the dummy warhead contained steel to duplicate the weight. Apparently, the NRC was comfortable in accepting this comment. Yet, there remained the unexplained Davy Crockett main warhead components with the yellow coating.

Within the last few days, I came across a web site that provides some explanation based on the ammunition that was produced for the M-28 and M-29 Davy Crockett systems.

https://guns.fandom.com/wiki/Davy_Crockett_Weapons_System

Apparently there were three types of warheads, each weighing about 76 pounds. There was the main M-388 fissionable warhead, an explosive M-390 dummy practice round that contained at least 16 pounds of high explosive, and one used for drills with steel ballast and no explosive, the M-421. The latter also had a plastic nose cone and replaceable fins so it could be retrieved and repaired for reuse. The contractor, Cabrera, estimated that from the number of Davy Crockett pistons found at PTA, as many as 600 warheads could have been fired. It was not stated in the on-line submission what the M-390 warhead used for making the weight equivalent to the fissionable warhead but from the photographic evidence, it is rather likely it was DU.

It should be noted that the on-line article seems to have misidentified the code for the main warhead as M-338 instead of M-388 as mentioned in other on-line documentation. As with all on-line sources, they must be independently verified and the NRC is in the best position to do so, especially having access to what may be still classified information.

I present this issue of a greater quantity of DU as deserving of further review and the NRC should autonomously conduct such a review to confirm this point. The license may have to be amended to reflect a greater quantity of DU present at PTA beyond that estimated from the spotting rounds alone. There are some Army field and training manuals available and even available on-line, such as FM23-20, which deal mostly with deployment procedures of the Davy Crockett system. I don't know how many other manuals regarding the Davy Crockett weapon may have been declassified but some are mentioned in other web sites. I am sure the NRC could have access to primary records at national labs engaged in the production of the Davy Crockett warhead, Lawrence Livermore and Los Alamos, and even from perhaps up to ten site-mentioned arsenals, forts, and test stations that have been identified where the Davy Crockett nuclear weapons system was developed and tested before deployment.

It appears the Army response to the NRC regarding the issue of additional DU from Davy Crockett training at PTA may be applicable to only one type of warhead that may or may not have been used at PTA. The article I present to you here clearly denotes that there were 3 types of warheads. From the photograph with main warhead components, it is clear that some form of exploding warhead was used and very likely contained DU. This now explains the previous enigma of the photographic evidence and the Army explanation. It is possible that both the M-390 and M-421 warheads were used at PTA but it is now credible that the M-390 warhead was used and that it did contain DU.

You had mentioned that the day-to-day oversight of the license SUC-1593 was soon to be handled by the appropriate field regions, in the case of PTA, the Arlington, TX office. If that transfer of responsibility has already occurred, I would appreciate it if you would forward this letter to that office for review and action, including a request for an amendment to the license with appropriate public comment.

Sincerely,

Michael Reimer

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Retired Geologist