From: James Salsman <james@readsay.com>
To: Joseph DeCicco <JXD1@nrc.gov>
Date: 10/19/05 3:26AM
Subject: amendment to petition included in comments on proposed director's decision

Dear Mr. DeCicco:

We recently discussed the fact that an amendment to my 10 CFR 2.206 petition at this stage would reset the procedural time clocks. My understanding is that I will now be asked whether I would like to have a teleconference with the Petition Review Board. I would like to within the next few weeks if possible.

Recently I posed seven questions, and subsequently four proposed amendments to which I am now amending section 7.0 of my petition by adding sections 7.0.1-4 as follows:

[The amendments of 19 October 2005 begin here.]

(7.0.1.) Petitioner Requests Pyrophoric Uranium Munitions Licensees be Required to Quantify Dates, Times, Locations, Amounts, and Types of Uranium Munitions Use, and Estimate Kinds and Number of Targets Involved

Petitioner requests that the licenses be modified requiring a good-faith effort to quantify the dates, times, locations, quantities, and types of pyrophoric uranium munitions use, along with an estimation of the kinds of targets involved, and also provide any available information which might further specify the amounts, locations, times, and results of pyrophoric uranium munitions use.

(7.0.2.) Petitioner Requests Pyrophoric Uranium Munitions Licensees be Required to Determine the Amount of Uranyl Oxide Gas Produced in Pyrophoric Uranium Munitions Combustion

Petitioner requests that the licenses be modified requiring licensees to determine the amount of uranyl oxide gas produced in pyrophoric uranium munitions combustion in air under typical and observed use conditions.

(7.0.3.) Petitioner Requests Pyrophoric Uranium Munitions Licensees be Required to Determine the Extent of Reproductive and Developmental Toxicity from Typical Uranium Munitions Combustion Product Inhalation in at Least Five Diverse Species of Mammals

Petitioner requests that the licenses be modified requiring licensees to determine the determine the extent of both reproductive and developmental toxicity from typical uranium combustion product inhalation in at least five diverse species of mammals (e.g., chimpanzee, pig, sheep, rabbit, mouse) using chromosome abberation analysis of lymphocytes and gonocytes in statistically significant numbers of exposed and control animals.

(7.0.4.) Petitioner Requests Pyrophoric Uranium Munitions Licensees be Required to Publish Their Findings Concerning Uranium Munitions Use, Uranyl Oxide Gas Produced, and Reproductive and Developmental Toxicity, and That They Be Required to Validate Their Publication Using Anonymous Bidding of Audit and Results Replications Contracts, and Publication of Initial Studies and Validation in Only the Peer-Reviewed Medical or Scientific Literature.

Petitioner requests that the licenses be modified requiring licensees to publish their estimates and determinations from the license modifications specified in sections (7.0.1), (7.0.2), and (7.0.3) above, and provide for the independent verification of all such studies' independently verifiable aspects, through the use of anonymous bidding of contracts for replication and auditing of data gathering and analysis, and also through the use of requiring that both initial and validating studies be published only in the peer-reviewed medical or scientific literature.

[The amendments of 19 October 2005 conclude here.]

Those amendments are made to:
http://www.bovik.org/du/du-petition.html

Thank you for your help with this modification, and the additional study time that it allows.

Sincerely,
James Salsman

--- earlier messages follow ---

I would like to propose the following requirements for the licensees:

(1) That they be required to make a good-faith effort to quantify the date, time, location, quantity, and type of DU munitions use, along with an estimation of the kinds of targets involved. I understand that in many cases this will require very large granularities.

(2) That they be required to determine the amount of uranyl oxide gas produced in pyrophoric uranium munitions combustion.

(3) That they be required to determine the extent of reproductive and developmental toxicity from pyrophoric uranium munitions combustion product inhalation in at least five diverse mammals.

(4) That they be required to publish their estimates and determinations from (1), (2), and (3) above and provide for the independent verification of their all independently verifiable aspects, though anonymous bidding and requiring publication of the resulting reports in the peer-reviewed medical literature.

This would shift the mandatory health and safety protection burden from

the NRC to the licensees.

Please let me know how Dr. Goldberg thinks it might be best to accomplish those proposals: as new petition(s), as amendments to the existing petition, restarting the time clock, if the petition review board would accept these as amendments, or something else?

Thank you.

Sincerely,
James Salsman

--- earlier messages follow ---

Thanks again for your help, and for inviting my questions.

This format is probably much better to send to the Petition Review Board:

Question 1. Are the licensees currently required to document the quantities of exposure, or just the dates and locations? If they are not, I would suggest license modifications requiring that.

Question 2. Are the licensees required to document the amount of UO3 produced in uranium munitions combustion, and its particle size characteristics, including the portion produced as UO3(g) vapor? Again, if they are not, I would suggest license modifications requiring that.

Question 3. Does any member of the petition review board have any reason to believe that the clearance times for small particles (such as the particle distribution found in uranium combustion) of UO3 is not less than ten days?

Question 4. Why does the Proposed Director's Decision claim that UO3 is class W instead of class D?

Question 5. Does any member of the Petition Review Board have any reason to believe that UO3 is not produced in gas vapor form in uranium munitions combustion?

Question 6. Does any member of the Petition Review Board have any reason to believe that any member of the armed forces was ever aware that uranium-oxygen combustion produces monomolecuar gaseous UO3 vapor, before I brought the findings of Ackerman, et al., that UO3 gas vapor is produced in uranium-oxygen combustion to their attention in my petition or my earlier correspondence on the topic?

Question 7. Does any member of the Petition Review Board know of any reason why the NRC may not modify a license to require a licensee to remedy an accidental safety violation by requiring medical treatment? If so, what is that reason(s)?

Please let me know the answers as soon as possible.

--- earlier message follows ---

Dear Mr. DeCiccio:

I have the following seven questions regarding the proposed Director's Decision. These are not my final comments due in October; I need answers to these questions in order to be able to offer a correct response. Please forward these questions to the Petition Review Board, and let me know their answers as soon as possible.

First, pertaining to this section: "The Petitioner requests that licensees document when and where significant quantities of hexavalent uranium have been ingested, inhaled, or released to the environment.... NRC already requires documentation and reporting of releases and exposure to numerous radioactive and nonradioactive substances. NRC regulations specifically establish exposure limits for hexavalent UO3. See 10 CFR 20.1201(e), 10 CFR 20.1302(b), and Appendix B to Part 20. NRC requires monitoring of exposure of workers and members of the public to licensed material (Subpart F of Part 20). The regulations require the use of surveys, equipment, and instruments that are necessary to comply with the exposure limit regulations of Part 20. Subpart C of Part 20 addresses occupational work limits, whereas Subpart D addresses the radiation dose limits for individual members of the public. Subpart L contains requirements for documentation and recordkeeping of radiation protection programs, surveys, and records of exposure to occupational workers as well as individual members of the public. Subpart M contains reporting requirements for notification of incidents and exposure, radiation levels, and concentrations of radioactive material exceeding the constraints or limits. To the extent that the Petitioner requests, in item 1, that licensees be subject to existing documentation requirements, the request is granted."

Question 1. Are the licensees currently required to document the quantities of exposure, or just the dates and locations? If they are not, I would suggest license modifications requiring that.

Question 2. Are the licensees required to document the amount of UO3 produced in uranium munitions combustion, and its particle size characteristics, including the portion produced as UO3(g) vapor? Again, if they are not, I would suggest license modifications requiring that.

Furthermore, I believe there is a technical error in this section: "For radiological considerations, radionuclides have three different inhalation intake and air concentration allowable levels, based on the chemical form of the compound. These different levels reflect the solubility of the material in the lung, and the retention time in the pulmonary region of the lung. Solubility classes are D (clearance half-times less than 10 days) for soluble material, W (10 to 100 days (weeks)) for moderately soluble material, and Y (greater than 100 days (years)) for insoluble material. UO3 is classified in Part 20 as having a solubility class of W, or moderately soluble, while U3O8 has a solubility class of Y, insoluble. For uranium-238, the predominate radionuclide in DU munitions, the Y class is the more restrictive (smaller) allowable intake and concentration levels than the W class. Licensees, that encounter both UO3 and U3O8 , in aerosols, would classify the aerosols proportionately as class W and class Y, or as all class Y, the most restrictive level, and would be in compliance when UO3

is present, regardless of its relative concentration in the aerosol."

Question 3. Does any member of the petition review board have any reason to believe that the clearance times for small particles (such as the particle distribution found in uranium combustion) of UO3 is not less than ten days?

Question 4. Why does the Proposed Director's Decision claim that UO3 is class W instead of class D?

I also have questions regarding this section: "The Petitioner has supplied no information that could provide a basis to conclude that licensed activities may have involved any violation of NRC requirements, or that the presence of UO3 during test firing of DU munitions represents a safety hazard greater or different than that recognized when the DU munitions licenses were granted."

Question 5. Does any member of the Petition Review Board have any reason to believe that UO3 is not produced in gas vapor form in uranium munitions combustion?

Question 6. Does any member of the Petition Review Board have any reason to believe that any member of the armed forces was ever aware that uranium-oxygen combustion produces monomolecuar gaseous UO3 vapor, before I brought the findings of Ackerman, et al., that UO3 gas vapor is produced in uranium-oxygen combustion to their attention in my petition or my earlier correspondence on the topic?

I note that The Air Force said that they "have no data to support the allegation that ... UO3 is produced during target interactions." In a letter of August 24, NRC ONMSS Allegation Coordinator Robert L. O'Connell included a staff response indicating that the Air Force's statement was not misleading, even if the Air Force was in possession of copies of Ackermann, et al's findings and other published and peer-reviewed data showing their relevance. The Navy response to the petition indicates that my assertion, consistent with the multiply-replicated and peer-reviewed published findings of Ackermann, et al. was, "speculative."

The Army reply indicated that it is necessary to determine the cloud collegative properties of UO3 gas vapor fumes, but that they had not yet attempted to do so, which both admits the fact that UO3 is produced in uranium munition combustion, and also suggests that the Army may not have been aware of that fact until I brought it to their attention.

As far as I know, there is no evidence that I was not the first to bring the work of Ackerman, et al., to the attention of the licensees. If there is any such evidence, please describe it to me as soon as possible, and provide access instructions or copies if possible.

Finally, I believe the following section is inconsistent with the law: "The request to require licensees to determine the best, safe, and effective medical therapies for uranium poisoning is outside the scope of NRC jurisdiction. NRC has no authority to require medical treatment of any human malady."

Question 7. Does any member of the Petition Review Board know of any reason why the NRC may not modify a license to require a licensee to remedy an accidental safety violation by requiring medical treatment? If so, what is that reason(s)?

Sincerely,
James Salsman

P.S. Ref: http://www.bovik.org/du/NRC-proposed-dirs-decision.rtf

CC: Paul Goldberg <PFG@nrc.gov>, <tjlodge50@yahoo.com>

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Options

Expiration Date:	None
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