

Uranium Watch

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Douglas Mandeville
Uranium Recovery
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Programs
Office of Federal and State Materials and Environmental Management Programs
U.S. Nuclear Regulatory Commission
Washington D.C. 20555-0001

RE: NRC December 19, 2013, Meeting with Ablation Minerals LLC

Dear Mr. Mandeville:

I have a few things that I trust will be addressed in the December 19, 2013, meeting between the Nuclear Regulatory Commission (NRC) and Ablation Minerals LLC (AM). I refer you particularly to the discussion in 4. below, since it appears that NRC guidance has already mooted the questions of whether AM ablation processing warrants a specific source material license, whether the waste produced by such processing is 11e.(2) byproduct material, and whether the ablation processing (an activity that results in the production of byproduct material) is uranium milling.

1. AM's November 19, 2013 letter to the NRC requesting the meeting states that their ablation processing in Casper, Wyoming, would fall under a general source material license and not be subject to a specific source material license. AM claims this is because MA has not **generated** material exceeding 150 pounds in one calendar year. They reference the May 29, 2013, NRC source material Final Rule (76 Fed. Reg. 32310). According to the new provisions in 10 C.F.R. §40.22, MA would have been allowed to possess 15.4 lb of uranium at any one time and **receive** up to 154 pounds of uranium or thorium in the calendar year ending August 27, 2013. However, MA only mentions the material that they generated, not the source material ore they received.

The Final Rule (page 32312, col. 1, ¶ 1) states: *Section 40.22 provides a general*

license authorizing commercial and industrial firms; research, educational, and medical institutions; and Federal, State, and local governmental agencies to use and transfer not more than 15 pounds (lb) (6.8 kilograms (kg)) of source material in any form at any one time for research, development, educational, commercial, or operational purposes. Not more than a total of 150 lb (68 kg) of source material may be received by any one general licensee in any calendar year.

Since ore containing more than .05% uranium by weight meets the definition of “source material” ore, it would be reasonable to assume that MA could not possess more than 15.4 lbs of uranium ore at any one time and could not possess more than a total of 154 lbs of uranium ore in any calendar year, prior to August 27, 2013. According to the Final Rule (page 32322, col. 3, ¶ 2): *In practice, some general licensees who use uranium and thorium in the form of ore (considered by definition to be source material in its entirety) will actually see allowable possession limits significantly increase under the final rule because they only need to account for the mass of the uranium and thorium itself rather than the ore mass.*

Therefore, the Final Rule appears to state that the possession of source material ore prior to August 27, 2013, and “grandfathered” until the end of 2014, applies to the total weight of the source material ore, not just the mass of the uranium and thorium itself. Although moot in this instance, the applicability of Section 40.22 before and after the Final Rule must be clarified by the NRC.

2. In the NRC December 12, 2013, letter to MA in anticipation of the December 19 meeting lists some questions that MA should be prepared to answer. Missing from that list is any question regarding when MA received the source material ore. Also missing is any question about the amount of source material possessed at any one time. The NRC should have asked MA how much source material ore was received and possessed by MA and the dates of that receipt and possession. If any source material was transferred to another location, the NRC needs to know how much and when.

3. Another issue that does not appear to be on the agenda is the fact that MA is the processing uranium ore for its “source material” content, which is defined as uranium milling and subject to additional regulations. The definition of the waste stream from ablation must be addressed in the meeting.

4. It appears that, based on NRC guidance, the whole question of whether MA can process uranium ore Casper under a general license is moot. It also appears that the questions of whether the waste from the ablation process is 11e.(2) byproduct material and whether the ablation processing is milling are moot. The NRC has already answered these questions.

I would draw your attention a statement in the “GUIDANCE FOR IMPLEMENTATION OF THE FINAL RULE ‘DISTRIBUTION OF SOURCE MATERIAL TO EXEMPT PERSONS AND TO GENERAL LICENSEES AND REVISION OF GENERAL LICENSE AND EXEMPTIONS,’ 10 CFR PARTS 30, 40, 70, 170, and 171,” May 29, 2013 (NRC-2011-0003-007). This Guidance states, at page 11:

Q7. Are there any restrictions on processing or using source material under the 10 CFR 40.22 general license?

A7. As long as you meet and continue to meet the conditions for possession of source material as stated in 10 CFR 40.22(a), there are only a few restrictions on how you may process or use the source material: (1) you may not administer the source material (or radiation from it) either externally or internally to human beings; **(2) you may not concentrate or extract uranium or thorium in ores if the primary purpose of the process is to concentrate or extract the source material because you would create waste, which is considered 11e.(2) byproduct material and would require a specific license to possess;** and (3) you may not isotopically separate any of the isotopes of uranium or thorium, because then you would possess uranium or thorium no longer in its natural isotopic concentration. For example, you could melt depleted uranium and pour it into various forms and shapes under the 10 CFR 40.22 general license, as long as you were doing it for research, development, educational, commercial, or operational purposes and possessed less than 1.5 kg of source material at any one time and did not receive or process more than 7 kg of source material in any calendar year. [Emphasis added.]

I can only wonder why the NRC did not bring the Guidance to the attention of MA (or Ablation Technologies LLC) in the e-mail of August 13, 2013, and letter of December 12, 2013, or in communications with various members of the public. I can only wonder why the NRC has not taken definitive action to demand a license application and order MA to cease ablation activities in Casper until this operation has been appropriately licensed.

Thank you for consideration of these comments.

Please place this communication on ADAMS on the docket that will be established for MA’s ablation uranium milling operation.

Sincerely,

Sarah Fields
Program Director