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November 24, 2004

Ms. Elaine Brummett  
U.S. Nuclear Regulatory Commission  
Fuel Cycle Facilities Branch  
Division of Fuel Cycle Safety and Safeguards  
Office of Nuclear Material Safety and Safeguards

Re: Request to Amend License SMB-920 to Allow Filtercake to Be Used as Cement Kiln Feed Material-Cabot Supermetals, Inc. Boyertown Facility. Docket No. 40-6940

Dear Ms. Brummett:

As you know, Cabot Supermetals, Inc. (CSM) operates a plant in Boyertown, PA that includes an on-site wastewater treatment plant that produces filtercake containing trace levels of radionuclides. CSM now wishes to pursue a disposal option that will permit beneficial reuse of the filtercake as cement kiln feedstock in a manner that would involve minimal exposure risk to workers and the general public. This application requests permission to proceed with that disposal option.

The information attached to this letter describes the positive results of our initial investigations into the feasibility of this alternate disposal method, and the dose assessment results that indicate dose to workers and the general population would be less than 1 mrem. We believe that this disposal alternative is appropriate based on those results and the following facts:

- 1) This option allows for beneficial reuse of the waste material and removes 20,000 tons of material from being disposed in landfills annually, which is supportive of local and federal initiatives for minimizing waste volumes in landfills. This option has been tentatively determined by the EPA Region III Waste Minimization Program Leader, Tad Radzinski, to be a good candidate for implementation. State regulators have been consulted and have expressed their support.
- 2) The filtercake contains very low concentrations of uranium and thorium. CSM's recent license renewal provided an assessment that resulted in doses below a few mrem for off-site disposal at local sanitary landfill sites and allowed for disposal at local landfills as long as U and Th concentrations are less than 10 pCi/g and 3 pCi/g, respectively.
- 3) The potential doses to workers and the public will be minimal because the concentrations of U and Th in the filtercake are low, the concentrations will be diluted by a factor of 100:1 when mixed with other conventional feed materials in the proposed process, and the material will not be closely handled by workers.
- 4) This disposal option is more cost effective than landfill disposal, which will allow CSM to regain some ground lost recently to international competitors. This economic advantage helps ensure that our operations remain competitive and that we continue to operate as a major employer in the Boyertown area.



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Specifically, CSM is requesting that condition 20 in the current license be revised to read as follows (revised language presented in *italics*):

“The wastewater filtercake source material limit for release to a landfill *or cement kiln operation* is the sum of fractions as follows: uranium/10 pCi/g + thorium/3 pCi/g = 1. This limit applies to the monthly average filtercake released.”

The attached NRC Form 313 and supplemental information provide the necessary justification to support this request. Please note that the information provided in this submittal has all been reviewed and approved by the Radiation Safety Officer for the license, Mr. Timothy Knapp, and by Mr. Odle. Mr. Odle’s signature on the attached NRC Form 313 is intended to certify CSM’s approval of all the information in this submittal.

We would appreciate your expedited review of this request. Thank you for your timely consideration. Please contact me at (505) 837-6556 if you have any questions regarding this information, and thank you for your assistance in the preliminary review and development stages of this process.

Sincerely,  
Weston Solutions, Inc.

A handwritten signature in blue ink that reads "Robert P. Schoenfelder". The signature is fluid and cursive, with a long horizontal flourish at the end.

Robert P. Schoenfelder, CHP  
Project Manager

RPS/cmb

cc: Timothy Knapp, Cabot Supermetals