

June 25, 2002

Mr. Martin O'Neill, Director
Safety, Health, and Environmental Affairs
Cabot Corporation
P.O. Box 1608
County Line Road
Boyertown, PA, 19512

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION CONCERNING THE
APPLICATION FOR RENEWAL OF SOURCE MATERIAL LICENSE SMB-920

Dear Mr. O'Neill:

The U.S. Nuclear Regulatory Commission (NRC) received by letter dated April 3, 2002, a request from Cabot Performance Materials for the renewal of NRC Source Material License SMB-920 for the Boyertown, Pennsylvania facility. The staff has determined that additional information is needed, in order to continue with the review.

The license renewal application should have included an updated decommissioning funding plan. Also, the staff determined that an updated Environmental Report (ER) or a supplement to the previous ER must be submitted to be used in preparation of the Environmental Assessment, and that information on current and anticipated facility operations is needed to complete the safety analysis. The specific requests are enclosed, presented as the action needed, followed by the basis for the request. Cabot Corporation should provide the required information within 30 days from the date of this letter, or indicate why a delay is necessary. In accordance with 10 CFR 2.108(a), failure to respond to this request for additional information, may be grounds for denial of the application.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room). If you have any questions, please contact Ms. Elaine S. Brummett, either by telephone at (301) 415-6606, or by e-mail at esb@nrc.gov.

Sincerely,

/RA/

Daniel M. Gillen, Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No. 40-6940
License No. SMB-920

Enclosure: Request for Additional Information
cc: T. Knapp, Cabot

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Safety, Health, and Environmental Affairs
Cabot Corporation
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OFC	FCFB	C	FCFB	C	FCFB		FCFB	
NAME	EBrummett*		JMuszkiewicz*		GJanosko		DGillen	
DATE	6/14/02		6/14/02		6/19/02		6/25/02	

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* see previous

**CABOT CORPORATION
REQUEST FOR ADDITIONAL INFORMATION
RENEWAL OF NRC SOURCE MATERIAL LICENSE SM-920**

1. Decommissioning Funding Plan

The licensee must provide an updated detailed cost estimate for decommissioning and documentation of adequate funds for decommissioning the licensed facility.

According to Office guidance NUREG-1727, Section 15, the renewal application should have included a decommissioning funding plan as described above.

2. Climatology and Meteorology

The licensee should provide updated climatology and meteorology data for the site area.

The climatology and meteorology data described in the ER for the 1994-1996 license renewal accounts for the time period between the years 1972 and 1976. The staff considers this time interval to be of limited value in evaluating the potential impacts of site activities under various climatic conditions (e.g., tornados).

3. Environmental Monitoring Program

The licensee should provide updated ER information regarding: (1) Air Monitoring, (2) Forage Sampling, (3) Surface Water and Sediment Sampling, and (4) Groundwater Monitoring. The licensee should provide tabulated data or summary graphs for the monitoring results mentioned above and required under License Condition 14. The licensee should include the monitoring evaluation such as the possible effects of the nonradiological constituents released to the environment by the facility. For example, the staff considers that the licensee's proposal to discontinue the monitoring of the forage crops for fluoride should be justified (based on releases 1996-2001) because fluoride could have an impact on the biotic resources. Also, the licensee should provide data or any evaluation since June 2001, for the elevated radiation in the MMW3 monitoring well.

The staff considers that changes or trends in monitoring data may have occurred in the last 6 years that staff should consider for the EA. The 1996 EA indicated that the operation of the facility had resulted in elevated fluoride concentration in forage crops growing adjacent to the plant, and the biannual monitoring of both the corn and the grasses since 1988 indicated that the annual average fluoride concentration has exceeded the 40 parts per million reporting level required by the previous license for reporting results to the Pennsylvania Department of Environmental Resources and the NRC. Also, the Cabot RSO report of June 29, 2001, indicated possible reasons for elevated radiation in the MMW3 monitoring well but the effects should have dissipated by this time and possibly another source of the contamination identified.

Enclosure

4. Land Use Survey

The licensee should provide an updated description of land use of adjacent areas, noting any significant changes from the last survey. The suggested adjacent area to be considered is within a 5-mile radius of the site boundary.

An updated land use survey is necessary for the evaluation of the potential environmental impacts due to continued site activities.

5. Air Effluents

The licensee should discuss the benefits and disadvantages of specific monitoring for air effluents released from Building 073.

The licensee relies on air monitoring at the site boundary to determine its unrestricted area air effluents. The staff (see inspection report dated October 23, 2001) is concerned that the air from the baghouse and the Torrit stacks are not being monitored and thus workers or the public within the site boundary may be exposed to elevated air effluents. These releases include small quantities of radioactive material.

6. Groundwater Monitoring Well Locations

The adequacy of the location and screen interval (sampling depth) of the ground water wells, placed to monitor possible contamination from the Mausoleum, should be justified.

The October 23, 2001, inspection report mentioned that the construction of the wells close to the buildings may disrupt the adequate assessment of ground water contamination coming from the Mausoleum. "The environmental assessment for the renewal request will need to address ground water quality relative to potential radiological impacts."

7. Facility or Site Changes

The staff understands that the planned process modification (second stage digester and kiln), mentioned in the 1994-1996 renewal application, was not constructed. This should be documented with any update to the site and operation description that should include the location of the mausoleum and the ground water monitoring wells (if previously provided, please reference). In addition, the update of facility activities should include the amount and radioactivity content of material taken to the landfill, as well as the amount and activity level of radioactive material sent for licensed disposal since 1996.

Any significant changes or planned changes to the facility operation or site must be considered in the staff's evaluation of potential safety and environmental impacts due to continued site activities.

8. Work-area Air Monitoring

A. Lapel Samplers

Cabot indicated in a letter to the NRC dated December 20, 2001, responding to a Notice of Violation, that a technical report evaluating a comparison between lapel and general area sample results would be submitted by April 30, 2002, to justify why lapel sampling had been discontinued. Since the report has not been submitted to date, the licensee should provide the report, including the location and collection frequency of both types of samplers. The licensee should indicate how the report results relate to worker intakes and describe the work-area air sampling program that will be instituted, based on the report.

B. DAC Fractions

The 1996 SER indicated that the 1994 renewal application had an incorrect procedure for calculating the DAC fractions. The licensee agreed to calculate DAC fractions to reflect the presence of uranium and thorium progeny as well as use the ratio of uranium to thorium in the ore mixture. The licensee should indicate if the calculation of DAC fractions meets this commitment.

C. HF Monitors

The 1994-1996 renewal application indicated plans to install continuous area HF monitors for the digestion areas of Building 073. The licensee should indicate what year these monitors were installed, or if not installed, the justification for this lack of action should be provided.

The licensee should document that these safety related commitments were addressed, so that staff can complete the safety analysis.

9. Hazard Identification

The 1994-1996 renewal application indicated plans to install overflow and continuous level indicators on the HF and slurry tanks and the digester. The licensee should indicate if these indicators were installed, and if not, indicate why a safety hazard does not exist.

The NRC must conclude that health and safety issues are adequately addressed in order to renew the license.