ABB
ASEA BROWN BOVERI

August 6, 1990

Charles E. Norelius, Director
Division of Radiation Safety and Safeguards
U. S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Norelius:

As requested by your letter dated June 13, 1990, enclosed is a report on the status of our evaluation and corrective actions taken or planned concerning open items identified in Enclosure 1 of the USNRC Team Inspection Report #70-0036/90002.

Target dates have been indicated for those items which require additional time for completion. We will advise your staff should there be any change in these dates.

Respectfully submitted,

COMBUSTION ENGINEERING, INC.

H. E. Eskridge

H. E. Eskridge
Manager, Nuclear Licensing,
Safety and Accountability

HEE/ear/17063

Enclosure

L-54

AUG 20 1990

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COMBUSTION ENGINEERING, INC. - HEMATITE

STATUS OF OPEN ITEMS SUMMARIZED IN ENCLOSURE I,
INSPECTION REPORT #70-0036/90002

01 Open Item

"Document surveys to show that radioactive material intake for workers who do not receive whole body counts is below the measurement level specified in 10 CFR 20.103 (a)(3)."

Plant operators have been in-vivo counted on at least an annual basis and in some cases more frequently as defined by the Manager of NLS&A in accordance with Regulatory Guide 8.11. Other individuals were included as group representatives or if they were involved in activities where the 10 CFR 20.103 (a)(3) limits could have been exceeded.

Although the analysis of work functions performed and plant area sample levels show that the possibility of exceeding these limits are remote for other workers, we will in the future conduct in-vivo counts on all individuals who frequently enter plant processing areas at least every two years. However, this should not be interpreted as a commitment to count occasional visitors such as inspectors, auditors or secretaries. ~agree

02 Open Item

"Document surveys for jobs not under lapel sampling surveillance; show that airborne concentrations for workers in these areas is below the measurement level specified in 10 CFR 20.103 (a)(3)."

Additional lapel monitoring has been performed to document that airborne exposures in assignments not included in routine lapel monitoring is below the levels specified in 10CFR 20.103 (a)(3). All samples were below the 2 MPC-hour per day limit though somewhat higher than the fixed station concentrations.

03 Open Item

"Develop a procedure to indicate both the routine jobs and specific tasks that require lapel sampling."

Based on the results of the lapel monitoring discussed in Item 02, Material Control Operators will be monitored routinely and we will continue to monitor other jobs periodically to assure the validity of our sampling program.

04 Open Item

"Determine the range of airborne concentrations or the maximum airborne concentration for the continuous air monitor alarm set points that are used."

The ALPHA-6 continuous air monitors (CAMS) are very effective for detecting rapid increases in the concentration of airborne uranium. The alarm is set to alarm at the 1 sigma level and the sensitivity of the instruments varies. This probably results in part from problems in setting the channels for the areas of interest, which in theory, provide a technique for correcting for radon and thoron. Since these levels vary dramatically when thermal inversions occur, it has proven impractical to maintain constant settings. Our problems are purportedly complicated by the use of defective micro-chips (according to Eberline).

The intent of installing the CAM's, however, is not to substitute for the fixed sampling programs as a record of exposures, but to detect containment problems which might occur without detection and warn both the operator and Health Physics of the condition, thereby avoiding overexposures. The CAM's have been an asset in this respect. However, if they alarm constantly, they will be ignored eventually and this requires periodic adjustment making a fixed set point impractical.

05 Open Item

"Monitor employee compliance with exit surveys before leaving the change room; heighten awareness among the workers about change room procedures."

Employee compliance with exit surveys before leaving the change rooms will be monitored by conducting unannounced overcheck surveys after the employees leave the change rooms. The overcheck surveys will be conducted by a Health Physics Technician on a nominal monthly basis. Awareness about change room procedures will also be heightened by emphasis during the annual radiation safety retraining, scheduled for August, 1990.

06 Open Item

"Sample liquid effluents from the storm and sanitary sewer systems at the point where they leave the discharge pipes; report the combined data in semiannual Liquid Effluent report."

In addition to the site dam discharge, both the sanitary and storm sewer discharges are now routinely sampled. The site dam and sanitary sewer data will be combined for the semiannual effluent release report (the storm sewer discharge is upstream of the site dam). Any necessary changes to the license will be discussed with NRC Licensing.

07 Open Item

"Obtain/adopt a recognized procedure for obtaining well water samples."

It is our intent to comply with this request. We understand that such a procedure will be supplied by the NRC.

08 Open Item

"Determine through documented surveys that material/equipment in storage barns is below the licensee's release levels, or perform surveys to establish contamination levels; return any equipment contaminated above

the release level to the restricted area for storage until final disposition; alternatively, petition for license amendment to treat the storage barn as a radiation area in accordance with 10 CFR 20 requirements."

Equipment which may reasonably be suspected to have accessible uranium will be moved from the barn to Building 253, surveyed and cleaned for release or dispositioned for burial. We expect to begin this activity about September 10, 1990, and complete work by the end of 1991.

The inventory of 250-2 shipping containers have been surveyed for accessible uranium and will not be dealt with at this time, though eventually they too will require disassembly.

09 Open Item

"Review the problems associated with filter oxide loading in the performer operations hood; assure that an independent audit is performed to prevent UO_2 buildup behind the filter."

After several assay changes, only a minor accumulation of UO_2 (much less than a kilogram) has been found behind the pre-filters. The assay change procedures will be modified to identify the quantity (weight) on the filters. The pre-filters have contained significant quantities of UO_2. However, the pre-filters collapse when heavily loaded, i.e., when containing less than 10 kg of UO_2 and the need for replacement is obvious long before this happens.

10 Open Item

"Develop engineering controls to mitigate the generation of limestone dust during the changeout of spent scrubber material."

The use of dumpsters for unloading the limestone scrubbers has been demonstrated to mitigate the generation of dust. When procedures have been prepared and NLS&A approval accomplished, the method of unloading and sampling will be changed. This should be complete by the end of the year.

11 Open Item

"Repair/replace the temperature indicator gauge on the scrubber exhaust of No. 1 incinerator."

The temperature gauge has been replaced with a thermocouple.

12 Open Item

"Develop an inspection procedure to identify cracked packing glands. Submit a report of licensee findings (UF_6 release) to NRC-NMSS. Include bioassay/dose assessment data."

After discussion with Martin-Marrietta (Portsmouth), we have concluded that damage of the type encountered should be detectable by visual inspection. The receiving inspection procedure has been revised to require

visual inspection of the packing gland retainer. When in doubt, the packing gland retainer will be replaced.

13 Open Item

"Identify ways to prevent moisture or other foreign material from intruding into an uncovered blender vessel."

When uncovered blenders are open, no moderator, other than poreformer will be permitted on the upper deck (third floor) and the area will be posted for th is interval.

An inner-ceiling and an inner wall prevent rain from entering the building.

After reclosing the blenders, the assay change procedure will require opening the cone valve on each blender to assure that no liquid has accumulated in the blender.

These changes will be completed prior to use of the blenders with SNM.