



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

September 3, 1999

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SUBJECT: ALLEGATION NO. RIII-99-A-0029

Dear []

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This is in reference to our letter to you dated July 9, 1999, which indicated that we had received the information you provided, that it was being evaluated, and that we would provide you with a list of the issues developed during that review. The NRC has completed its review of several of your initial concerns. The enclosure to this letter provides a listing of each of your concerns and its current status.

Thank you for informing us of your concerns. We take our safety responsibilities to the public very seriously and appreciate your willingness to bring these issues to our attention. If you disagree with our conclusions or wish to provide additional information, please contact the Region III Office Allegation Coordinators by writing to the U.S. Nuclear Regulatory Commission, Region III, at 801 Warrenville Road, Suite 255, Lisle, Illinois 60532-4351, or calling the NRC Region III switchboard toll free at (800) 522-3025 or the NRC Safety Hotline at (800) 695-7403. Your cooperation is appreciated.

Sincerely,

Cynthia D. Pederson, Director
Division of Nuclear Materials Safety

Enclosure: As stated

cc w/enclosure: AMS File No. RIII-99-A-0029

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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Act, exemptions 7C
FOIA-2004-0234

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Concern 1:

You believe you were discriminated against (fired) after raising safety concerns to your management and to the NRC. Several examples of the safety concerns you raised were provided.

NRC Conclusion/Status:

The NRC Office of Investigations' investigation is ongoing for this issue.

Concern 2:

Plant staff might have taken lab crucibles home from the plant. The plant staff would clean up the crucibles and take them (the crucibles) home.

NRC Conclusion/Status:

This issue was referred to the licensee and its response was evaluated by the NRC.

The licensee did not substantiate this concern. The licensee did not identify any instance where crucibles were taken home from the plant, nor did they identify any reason why they would be. In November 1998, six crucibles were reported missing from the laboratory. During the licensee's investigation, an individual admitted taking and hiding five of the crucibles after initially denying any involvement. He indicated that the crucibles never left the site and that he took them to test security. The individual returned five of the six crucibles. The sixth crucible was not recovered after an extensive search. This individual was terminated for unauthorized removal of the crucibles. By procedure, any crucibles which are sent offsite are required to be cleaned and surveyed to ensure there is no contamination above release limits.

The NRC evaluation of the licensee response determined that in regards to the unauthorized removal of crucibles, the incident appears to be the act of an employee in a non-managerial position. In addition, the licensee took comprehensive action to investigate and address the issue, including termination of the involved employee. The licensee has procedural controls for preventing the release of contaminated equipment, and five of six missing crucibles were recovered. The likelihood of discovering the sixth crucible at this date is considered to be very small and there is no conclusive evidence that the crucible actually left the site. Based on these considerations, the NRC was unable to substantiate this concern.

Concern 3:

The decontamination area has contaminated trash in the clean trash area and this contaminated trash was not being surveyed prior to disposal to the dump.

NRC Conclusion/Status:

This issue was referred to the licensee and its response was evaluated by the NRC.

The licensee did not substantiate this concern. The licensee verified that items that can be decontaminated are cleaned and surveyed for residual radioactivity. Items that cannot be readily decontaminated in the Hematite facility are packaged for either further processing by a licensed waste processor or disposed of as radioactive waste at a licensed disposal facility. Items are free-released only when the items meet the release criteria specified by the license (SNM-33) and by procedure.

In addition to the NRC's review of the licensee's response, during an NRC inspection the week of April 26, 1999, NRC inspectors conducted a contamination survey in one of the clean dumpsters and no contaminated items were found. Based on inspection results, the NRC was unable to substantiate this concern. No violation of NRC requirements was identified.

Concern 4:

The laundry facility was in the clean area of the plant. Dirty laundry was surveyed prior to washing and identified as contaminated and then was again surveyed after washing. It was still as radiologically hot as it was before washing - one time they replaced all the coveralls but that didn't last long.

The following is an additional example from your March 29, 1999, fax.

"You complained about the laundry room facility being in a clear (clean) area. The dirty laundry was transported in an open container to the laundry room. This should have been a container with a cover. You complained about the washing procedures the operators were using. The clothing was always contaminated even after washing. Operators were in the habit of wearing clothing that was highly contaminated with fixed uranium. The laundry facility has operated without procedures as long as you were employed there. You complained about this to three named individuals. One of the named individuals informed you that he didn't want to create unnecessary procedures because the NRC would hold them accountable. There was also a problem with the operators leaving uranium pellets enriched with U-235 in the clothing pockets. The pellets were always discovered after the washing cycle. This only contributed to higher levels of contamination in the clothing. Laundry room operators would not rewash a load when they found pellets in the pockets."

NRC Conclusion/Status:

This issue was referred to the licensee and its response was evaluated by the NRC.

The licensee did substantiate this concern. The laundry process primarily removes loose uranium from the material, however, some residual uranium remains in the fabric weave and is detected using radiation survey instruments. Informational type radiation surveys have been performed prior to washing laundry and after washing. Survey results prior to washing and after washing have periodically been equivalent, indicating the contamination is fixed and not removable. Occasionally, protective clothing is replaced, and there have been times when a significant fraction of the clothing population has been replaced. The replacement is typically on an as-needed basis.

The NRC evaluation of the licensee response noted that fixed contamination is present in some protective clothing (primarily shoe covers, lab coats, and coveralls). The clothing is not allowed to leave the controlled area of the site (the laundry facility is located within the controlled area) and is disposed of as contaminated waste when it is replaced. Although contaminated, the contamination is primarily uranium (primarily alpha and beta radiation) which does not generally penetrate undergarments, shoes, clothing, etc., worn under the protective clothing. As such, the dose to employees or visitors wearing the protecting clothing is negligible. In addition, radiation workers and visitors entering the controlled area of the site are required to wear film badges to

monitor the dose received by the individual. Any significant dose from the protective clothing would presumably be measured by the film badge of the individual routinely wearing the clothing. The NRC routinely inspects and reviews the personnel doses received by employees at the site.

During an NRC inspection the week of April 26, 1999, contamination surveys of the laundry facility were performed. All the surveys yielded results below 18 disintegrations per minute per 100 square centimeters (dpm/100cm²) of removable activity which were well below the clear area administrative limit of 200 dpm/100cm². The laundry room was also noted to be on a routine survey program to ensure clear area limits were not exceeded.

As a result of these considerations, the licensee and NRC concluded that the concern was substantiated, but no violation of NRC requirements or risks to the public health and safety resulted from the current practice for laundering protective clothing.

Concern 5:

People eat, drink, and smoke on the contaminated side. This practice was against company policy.

NRC Conclusion/Status:

This issue was referred to the licensee and its response was evaluated by the NRC.

The licensee did substantiate this concern. Operations policy does restrict eating, drinking, and smoking in the contamination control areas of the plant with the following exceptions. Employees are allowed to chew gum, use cough drops or candy providing that they are put in the mouth prior to entering the contamination control area. There are also water drinking fountains within the contamination control area for plant use. On occasion, the licensee has identified drinking containers and personnel smoking have on the contaminated side of the change line. These are infractions of plant policy and if caught, the individuals are disciplined. The licensee continues to exercise supervisory oversight in the change rooms and appropriately deal with infractions of policy.

Through evaluation of the licensee's response, the NRC concluded that although infractions of plant policy have occurred, there are no restrictions in the license on eating or drinking as it pertains to the contamination control area. Thus, no violations of NRC requirements have occurred. The licensee appeared to handle the infractions of plant policy that had been identified appropriately. The inspectors did not witness any instances of smoking or eating in the contaminated areas during the April 1999 inspection. In addition, employees who routinely work in the contamination control area are on a routine bioassay program. Any chronic ingestion problems resulting from individuals chewing gum or candy, smoking, or drinking water in the contamination control area would likely be identified through this program. Historically, the routine bioassays (as well as non-routine, periodic whole-body scans) have not identified significant intakes of uranium through ingestion. Inhalation of uranium from airborne radioactivity is the predominant risk at the facility.

Based on the NRC's evaluation of the licensee's response and the NRC's inspection activities, we were able to substantiate this concern, but concluded that appropriate corrective action had been taken by the licensee when infractions of policy were identified.

Concern 6:

The stack monitoring system, was only being checked once a week and it should have been checked more frequently because ventilation motors were frequently found "burnt-out."

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 7:

The roof heat exchanger that kept powder from being dispersed to the environment was found to be blown out and was not discovered for approximately 3 weeks.

You provided the following clarification of this issue. You stated that during a maintenance activity, uranium powder was visible on the plant roof in the vicinity of four ventilation stacks. The maintenance activity involved the removal of a heat exchanger from the roof. The four ventilation stacks were Stack Nos. 240, 241, 243, and 244.

You were not confident of the source of the powder but felt that the powder may have come from the heat exchanger maintenance activity or from one of the nearby stacks. You speculated that the stack filters could be bypassed, following plugging, due to the untimely changing of the filters by plant staff. However, you had no evidence or indications that the plant staff were not changing the filters in a timely manner.

NRC Conclusion:

The NRC evaluated this additional detail and concluded, assuming the issue was true as stated, it did not constitute a violation of NRC requirements or that plant staff actions were inconsistent with regulatory requirements. Specifically, the NRC noted that the licensee does replace roof heat exchangers which were subject to and identified as contaminated. The licensee explained that the replacement of contaminated heat exchangers were controlled like other types of contaminated equipment replacements. These controls included a Radiation Work Permit for the heat exchanger replacement, securing the area, and required decontaminating activities, including cleaning areas where uranium powder may have accumulated due to problems with the heat exchangers or stacks.

In addition, you may refer to NRC Inspection Reports 070-00036/98-203 and 070-00036/98004 for a discussion of nuclear criticality safety issues and health physics issues associated with heat exchanger maintenance. The NRC has concluded that the licensee's corrective actions to issues identified in these reports were appropriate. Therefore, no additional action is warranted on this issue and we consider it closed.

Concern 8:

You discovered that the production operators were not following their procedures. You also found out that production supervisors would on occasion tell the operators to violate the procedure if it was necessary to get the production out. This was a violation that almost all the operators were guilty of. Operators in the Erbia Department and the Pellet Plant would fill out their batch records ahead of time, even before the batch had been run. You complained about this to two named individuals. Nothing was ever done.

"Shortly after hiring in at ABB, you found out the operators would not listen to Health Physics technicians (HPs). When you inquired as to why they would not listen to HP's, you were told the production supervisors taught their people not to listen to the HP Department because the HP Department would only slow down production. You complained about this to one of the named individuals. No action was ever taken."

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 9:

Operators not turning on their lapel monitors during their work hours resulted in low lapel sample results and caused the plant's yearly dose record to be faulty. The yearly record for the last five and a half years should be a lot higher.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 10:

Operators were not being truthful in signing out the lapel monitors. This caused a lot of trouble because the HP technicians were not able to assign the dose to anyone. A lot of high samples were unassignable. This was a problem because the people were not being assigned their proper dose and the yearly dose records that the NRC gets were not accurate. Over a 2 year period, the site accumulated a large box full of unassignable samples. There was several hundred samples in question. You complained about this to three named individuals. Nothing was ever done until you reported it to an NRC auditor. One of the named individuals started working on the situation the very next day. But what about all of those unassignable samples that were ultimately thrown away?

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 11:

You complained that certain health physics (HP) technicians did not follow the HP procedures. This included a named HP technician who is now the HP supervisor. You complained to two other named individuals. Nothing was ever done.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 12:

You complained about the lack of a portal monitor for personnel to go through before exiting the plant. Management said it was too costly. There were friskers in place in the locker rooms. However, very few of the operators used them.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 13:

You complained about employees carrying books and magazines and newspapers to the contaminated side. When they were finished with the books, they took them back over on the clean side without frisking them. This was reported to three named individuals. Nothing was ever done about it.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 14:

You complained that the laundry room operators were adding water to the hot (contaminated) laundry water samples that were ultimately flushed into the Joachim Creek that bordered ABB's property. Nothing was ever done about this.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 15:

You complained about the fact that HP technicians quit checking operators' hands while they were in the cafeteria. A large percentage of employees would not wash their hands before coming into the cafeteria to eat. When we made our surveys, they were hot (contaminated) a lot of times. Your idea was to check the employees' hands at least once a shift. Nothing was ever done about this situation.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 16:

You complained about certain HP technicians not following the proper procedures while running daily efficiencies and source checks on the Tennelec counting systems and the Canberra counting system. You also complained that a named individual, a former HP, trained you to use water in the planchets to run the backgrounds for the Tennelec counting systems. Nothing was ever done about this.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 17:

You complained about the floors always being dirty and over the contamination limits in the Pellet plant and Erbia and the Red Room and Green Room and decon area. Supervisors were throwing cleanup sheets in the trash instead of getting the floors cleaned. Nothing was ever done about this.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 18:

You complained about trash not being frisked before going into the trash container. Trash items were checked on day shift, but when someone wanted to throw something away on the back shifts, they didn't check with the HP Department. You found numerous items in the trash that were well over the limit. You proposed to keep a log of trash items being thrown away in the clean trash. Nothing was ever done about this.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 19:

You complained about the Shipping and Receiving Supervisor releasing radioactive shipments which had not been surveyed by Health Physics. On several occasions, shipments that were released by the supervisor had to be recalled after they had left company property. This happened more than once. It also displayed a blatant disregard for the role of the Health Physics Department.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 20:

You complained about the policy that a named individual made where the named individual allowed some contractors unescorted access into the plant. This action was made to help the production departments. It was also made to help reduce the amount of money spent on hiring escorts. The problem with contractors being unescorted was that the contractors were caught smoking in contaminated areas, working in areas where they should not be because of high contamination. They were also caught in contamination areas without the proper protective clothing. It was not a good idea to allow contractors to have a free run of the plant.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 21:

You complained about the staff in the HP Department not receiving proper training. You completed training at a named institution (the International School of High Tech Services in Annapolis Maryland), and had almost three years experience before coming to Hematite. The other HP technicians have no schooling in the HP field except what they have learned at the plant. When you first came to ABB-CE Hematite, they had a program in place for training HP technicians. They were sent to a special school in Oak Ridge, Tennessee. When a named individual came aboard, he stopped that program. There was only one training session held at ABB-CE the entire time you were there.

NRC Conclusion/Status:

This issue remains under review by the NRC.

Concern 22:

The security force is weak because of the shortage of personnel. Each shift needs two security guards.

NRC Conclusion/Status:

This issue was evaluated by the NRC. The Physical Security Plan for the site requires that one guard or equivalently trained individual be onsite at all times to ensure security is maintained. This level of staffing has been reviewed and approved by the NRC during the licensing of the Hematite facility. While additional guards may enhance the flexibility of the security force at the site, there is no NRC requirement for more than one security guard to be present. As a result, we concluded that a violation of NRC requirements had not occurred. No additional action is warranted for this issue and we consider it closed.

INFORMATION YOU RAISED THAT WAS OUTSIDE THE NRC'S JURISDICTION

You identified six items that are either outside of the NRC's regulatory jurisdiction or did not involve issues which violated or potentially violated NRC requirements. The resolution of these issues is provided at the conclusion of the listing.

Item 1 (Facsimile Item 14)

"I complained about the management's policy of having a massive cleanup effort just before NRC inspection. My idea was that we should work clean all the time. This was not the way management looked at it. Nothing was ever done about this problem."

While it is true that the NRC promotes good housekeeping at its licensees facilities, there are no specific requirements in the ABB-CE license which mandate what level of housekeeping the facility must maintain. The health and safety of the workers is assured if the NRC regulations and license requirements are met.

Item 2 (Facsimile Item 17)

"I complained about the plant generating unnecessary radioactive waste. Items were taken into the contaminated areas in boxes and cartons as well as other containers. There was a lot of unnecessary rad waste. I complained about this over a period of four years and nothing was ever done about it. Where I worked at other nuclear power plants, no unnecessary paper and wood products were ever brought into the contaminated areas."

While the NRC promotes waste minimization efforts at its licensees' facilities, there are no specific limitations in the ABB-CE license on amount or type of radioactive waste that may be accumulated or stored at the site as long as it is properly controlled.

Item 3 (Facsimile Item 18)

"I complained about the unusually large inventories of contaminated filter media. The company's policy was to tear out the filter media at times and store it in barrels in trailers located behind the plant. The fact is that the company did not have a plan to get rid of this type waste. They couldn't burn it and couldn't afford to send it to burial. So they just hold on to it until they don't have anyplace to put it."

While the NRC promotes waste minimization efforts at its licensees' facilities, there are no specific limitations in the ABB-CE license on amount or type of radioactive waste that may be accumulated or stored at the site as long as it is properly controlled.

Item 4 (Facsimile Item 23)

"I complained because the HP staff was grossly undermanned. The technicians were always caught up doing the administrative part of the job that the Pellet plant and other uranium handling operations were neglected by the HP department. The Pellet plant was where the HP staff was needed most. Management from a named individual on down didn't want the HP staff to be out in the plant. Their idea was that we slowed down production. My suggestion was that the company hire a secretary on each shift to do the administrative work in the office. This

would free the technicians to do the plant work, which I deemed more important than the office work. The lack of HP control in the plant caused a lot of problems including operators doing whatever they wanted to. Most of the time at Hematite, the HP technicians spend more time in the office than they do on the floor. My idea of hiring secretaries was shot down by two other named individuals because they didn't want women working in Health Physics."

Manning level is outside NRC jurisdiction. However, HP performance will be continue to be evaluated during routine NRC inspections.

Item 5 (Facsimile Item 24)

I complained when a named individual terminated another named individual and cut the job he was doing as site instructor. I feel like the training at ABB took a definite nose dive when the training specialist was eliminated. With the cuts ABB had made, it left very little time for instruction in radiation training, HP training, etc."

Although there are training requirements for identified in the license for nuclear criticality safety and radiation protection, there are no specific requirements in the license for a site instructor.

Item 6 (Facsimile Item 25)

"I complained about a named individual's chronic absenteeism problem. I feel like that if the NRC wanted a supervisor for Health Physics, that supervisor should be on the job the greatest part of the time. The named individual was gone more than he was on the job. This left the HP technicians to supervise themselves. In every other plant that I worked in, each shift had its own supervisor. I feel like that ABB's policy of one supervisor is not adequate. Another named individual made the statement several times that he wanted to go down to three technicians and cut the supervisor job out completely."

Absenteeism is outside NRC jurisdiction. However, HP performance will be continue to be evaluated during routine NRC inspections.

NRC Conclusion/Status:

Based upon our review of each of these facsimile items we have determined that they do not fall under NRC jurisdiction or constitute activities which are allowed under the NRC license. This is not a finding that these issues do not have merit, rather it is a recognition of the regulatory limits of the NRC. The NRC staff plans no further follow-up on these items and considers them closed.