

STATE OF COLORADO

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Colorado Department
of Public Health
and Environment

October 23, 2006

Attention: Mr. Amory Quinn, President
Cotter Corporation
7800 East Dorado Place, Suite 210
Englewood, CO 80111

Subject: **Notice of Violation**

This letter is a Notice of Violation (NOV) of certain requirements of Title 25, Article 11, CRS, Colorado Radioactive Materials License Number 369-01, and the State of Colorado *Rules and Regulations Pertaining to Radiation Control* 6CCR 1007-1 (the Regulations). The violations were found during a routine inspection of the Cotter Corporation Cañon City Milling Facility (Cotter facility) conducted from August 28 – 31, 2006, by Philip Egidi, James Jarvis and Edgar Ethington of the Hazardous Materials and Waste Management Division (the Division) of the Colorado Department of Public Health and Environment (the Department). Discussions of the violations and items of concern noted during the inspection, along with a recommendation are outlined below.

Violations:

1. The Cotter Corporation (Cotter) Cañon City Milling Facility *Radiation Protection Plan Procedures Manual*, (the Procedures Manual) Procedure RH-050, Bioassay, section 7.3.1 states: “When an individual urine bioassay result indicates a potential uranium concentration greater than 10 µg per liter (microgram per liter), the Radiation Safety Officer (RSO) is to initiate an investigation.”

Contrary to this requirement, numerous urinalysis results greater than the stated action level were noted in the ALARA (As Low As Reasonably Achievable) Committee reports for 2005 and 2006, yet investigations had not been performed as required by the procedure. Cotter self-identified and reported this deficiency at the time of the inspection, and committed to reviewing the bioassay data by or on September 16, 2006.

The RSO shall conduct the necessary investigations and follow up as outlined in RH-050. Cotter is to provide documentation of the reviews to the Department within thirty (30) days of receipt of this NOV.

Cotter shall assure that sufficient resources are available such that the RSO can perform these investigations, as well as other required duties outlined elsewhere in the license and procedures.

2. The Procedures Manual, Procedure RH-210, Personal Radiation Monitors, section 7.2.4 states: “In the event a measurement exceeds the action levels (200 mRem deep dose, shallow dose or extremity dose), the vendor [for badges] will notify the Environmental Coordinator (EC)/RSO, or the Radiation Safety Clerk by telephone who will then inform the EC/RSO and an investigation will be undertaken which will either substantiate the occurrence of measurement or describe the conditions that caused the measurement to be non-representative of the exposure the badge holder actual sustained.”

Contrary to these requirements, measurements exceeding the action levels were not investigated.

Cotter shall ensure that the reports submitted by the vendor are reviewed and investigations undertaken per the procedure. Cotter is to provide documentation of the reviews to the Department within thirty (30) days of receipt of this NOV.

3. License Condition 10.3.1 states: “During any period of active operation, the RSO shall (1) audit quarterly [twelve (12) weeks] the logs and reports of inspections, (2) evaluate the adequacy of implementation of license requirements, and (3) recommend in writing to the mill manager any necessary corrective actions.”

Contrary to these requirements, quarterly audits of the logs and reports of inspections were either not conducted or documented by the RSO for the period of time the inspection addressed (November 2005 – August 2006), which included periods of uranium recovery.

Despite these audits not being accomplished, other indicators show that the RSO is engaged. As part of the stand-down at the facility, the RSO is involved and is recommending corrective actions through the stand-down, re-engineering and readiness review process. The ALARA committee does address some aspects of this requirement as part of its activities (e.g., recommend corrective actions), however a review of those reports did not show that the committee has been tasked with these duties through the RSO, or that they specifically track and implement this LC. Cotter shall assure that sufficient resources are available such that the RSO can perform these investigations, as well as other required duties outlined elsewhere in the license and procedures.

4. License Condition 10.2 requires weekly inspections by the RSO or his designee, and has further reporting requirements.

Contrary to these requirements, a review of the records of these inspections for 2006 show that inspections were not conducted at all on numerous weeks, only a few areas a week were inspected in some cases, and inspections were being counted as make up inspections for previously missed weeks. Individuals who are on the ALARA Committee, not the RSO or his designee are doing inspections in rotating areas.

Cotter shall ensure that the RSO or his designee are performing weekly inspections of all functional areas of the plant, and are documenting any deviation from a standard operating procedure, license requirement, or safety practice, including housekeeping practice, affecting radiological safety. These shall be reviewed by management with the employee(s), documented, and corrected.

5. License Condition 11.2 states: “The licensee shall submit a report, within ninety (90) days of completing construction activity describing the construction as-built, including drawings, any deviations from design plans and specifications, and the reasons for any deviations or deficiencies.”

Contrary to these requirements, a final report for the construction and stockpiling of caldesite ore on the new ore pad was not submitted within the required time frame.

Cotter provided the information at the time of the inspection. *No further action is required.*

6. License Condition 22.8.3 calls for sampling of total particulate and condensable matter at the yellowcake stack to be conducted on a semi-annual basis until particulates are properly characterized, or below concern. The licensee shall develop a method to compare sample results to past data to identify outliers.

Contrary to this requirement, the sampling was not conducted when yellowcake was precipitated, dried and packaged prior to going into stand-down. A method to compare sample results to past data was not developed.

The Licensee shall plan to conduct characterization of particulate and condensable matter from the yellowcake stack as required by LC 22.8.3 at the earliest possible opportunity.

7. License Condition 16.4 states: “The licensee shall maintain a record per procedure AD-060 for each employee, signed by supervisor(s) and the RSO, which certifies that in addition to the training specified in Cotter’s Radiation Protection Program Procedures, the employee has completed on-the-job training using an overall operation and maintenance competency checklist and work process competency checklists appropriate to the employees work locations.”

Contrary to these requirements, the competency checklists were not finalized prior to stand-down, and numerous workers records were not reviewed and signed by management in a timely manner.

Cotter shall develop the checklists as part of re-engineering and readiness review. Cotter has acknowledged the lack of administrative review of the records, and has committed to improving its performance in this area. Cotter shall assure that sufficient resources are available such that the RSO can perform these reviews, as well as other required duties outlined elsewhere in the license and procedures.

This is a repeat violation.

8. Section 10.3 of Procedure ER 010 requires, in part, that Emergency Response Exercises/drills will include semi-annual desktop exercises and response drills such as an ammonia release drill or a loss of tank containment drill. The desktop exercise is designed to provide all emergency response personnel with the tools needed to deal with actual emergencies without the mobilization of equipment. Each exercise will be followed by a debriefing session to further the learning experience and modify the plan as necessary.

Contrary to this requirement, no records of table top exercises with emergency response personnel for the inspection period November 2005 through August 2006 were available at the time of the inspection documenting that the table top exercises actually were conducted.

The licensee shall perform and document semi-annual tabletop drills or exercises. The Department notes that the facility is going into a low hazard condition for the standby period, and the probability of a hazardous release or accident is reduced during this period. Nonetheless, the requirement stands to train and exercise for an emergency and to document such training and exercises.

9. License Condition 8.7 states: "The licensee's management and radiation safety officer shall take prompt and appropriate action to correct known deficiencies in the facility's procedures, processes, equipment, and site conditions."

Contrary to this requirement, as noted in the 2006 independent audit, and as noted above, the licensee failed in numerous instances to meet this license condition. One example provided in the 2006 independent audit is tracking of identified items in previous audits to ensure all findings are addressed. The audit report also identified numerous procedures that are deficient. The Department recognizes the amount of effort staff and management have put into program improvements, and those efforts are being continued through the standby and reengineering process. Nonetheless, continued improvements are needed in this area.

The Licensee shall develop sufficient management systems to ensure that corrective actions are being implemented, tracked and addressed in a timely manner, and that operations are safe.

10. License Condition 16.2 states that the RSO shall document employee review of (1) safety procedures applicable to each employee's assignment and (2) provisions of Part 10 of the Regulations.

Contrary to this requirement, Cotter has *not* trained each employee on the safety procedures applicable to their work assignment, nor can Cotter provide documentation that Part 10 of the

Regulations were a topic in training classes conducted in 2005 and 2006. Cotter self-reported this deficiency, which was confirmed at the time of inspection. The period of this inspection (November 2005 through August 2006) includes the time frame where significant safety violations occurred (addressed previously).

Training classes will be conducted weekly. Training of all personnel shall be complete by January 31, 2007. The requirements of this LC shall be incorporated into the training and review programs during stand-down, and as part of the readiness review process prior to resumption of activities at the mill. Documentation of employee review of procedures applicable to each employee's assignment under radiation work permits (RWPs) can be in the form of a sign off sheet signed by both the RSO and the employees.

In addition to the violations noted above, the following *Items of Concern* are noted.

1. Paperwork for a shipment of yellowcake in January 2006 had an incorrect proper shipping name (PSN) on the bill of lading. "RQ" needs to be in the PSN, not in the additional information lower on the form.
2. The licensee should track significant quantities of materials going into the impoundment from site activities in the RadTrack database. For example, the semi-annual report notes that about 1200 tons of caldesite cleanup materials went to the impoundment for disposal. This is not currently reflected in the database. This may be cause for a future violation if not addressed.
3. Cotter has planned on disposition residual reagents and organic solutions as part of stand-down to reduce hazard conditions. Acids, bases, and organic solutions still were on site at the time of the inspection. Winterization of the safety systems will need to be maintained in areas where these materials remain until they are disposition.
4. License Condition 13.2 states that all written plans, manuals, and procedures shall be evaluated by the RSO for ALARA considerations. Several managers were involved in making changes to these documents and some of these changes submitted to CDPHE in December 2005 had not yet been reviewed by the RSO for ALARA considerations. Cotter self-reported this deficiency and committed to finishing the reviews by September 29, 2006. Cotter is to provide the results of those reviews within thirty (30) days of receipt of this NOV.
5. MSHA's Hazard Communication (HAZCOM) for the Mining Industry (30 CFR Part 47) requires container labeling to notify workers of hazards in the work place, which may go beyond what the Department requires under Nuclear Regulatory Commission (USNRC) guidance and regulation. As noted in the 2006 independent audit, and as discussed by Department staff in the past, Cotter should implement the requirements of the HAZCOM rule at the facility.

6. Upper management should ensure that sufficient resources are available for the RSO and his staff to perform all required functions.
7. Consideration should be given to lowering gamma exposure rates from residual radioactive material at the site of the abandoned ore pad (#1) adjacent to the main gate and golf course.

Recommendation:

- A. Upper management should be familiar with the Cotter Corporate Policy statement, and revise as appropriate. A copy was given to the new President at the time of the inspection.

It should be noted that most of the issues cited above pertain to the period prior to the licensee putting the mill into a standby mode. The Department recognizes a very dedicated effort to documenting and reducing the hazard conditions at the facility.

Your written response shall be submitted within thirty (30) days of receipt of this letter and must include: (1) a detailed description of the corrective actions which have been taken to achieve compliance; (2) plans to achieve compliance with the requirements which cannot be remedied within thirty (30) days; and (3) other relevant information. Any proposed compliance schedules or plans to achieve full compliance after thirty (30) days must specifically include implementation deadlines for each of the key components of the plan. Failure to meet these deadlines will provide the Department a basis, without further notice, to institute proceedings for suspension, revocation or modification of your license, as provided in RH 3.23 of the Regulations.

As required by RH 10.2 of the Regulations, this notice must be posted so as to permit individuals engaged in licensed activities to observe it on the way to or from any particular licensed activity location to which the document applies. Any acknowledgment to this report by the licensee shall be posted within five (5) working days after dispatched by the licensee. Such documents shall remain posted for a minimum of five (5) working days or until actions correcting the violations have been completed, whichever is later.

If you have any questions concerning this letter, please contact Mr. Phil Egidi of this Division at (970) 248-7162.



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