

December 31, 2004

Mr. Tim G. Bonzer, Compliance Lead
Radiation Management Unit
Hazardous Materials and Waste Management Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80245-1530

Subject: Notice of Violation - Radioactive Materials License Number Colo. 369-01 regarding findings from CDPHE inspection of September 13-17, 2004, dated December 2, 2004, received December 6, 2004

Dear Mr. Bonzer,

The following information is provided regarding findings by Mr. Jarvis and Mr. Ethington of the Hazardous Materials and Waste Management Division, and Mr. Wallace, a consultant to the Hazardous Materials and Waste Management Division during the site inspection conducted September 13-17, 2004.

The majority of the findings were provided during the exit interview on September 17, 2004. Apparently there was no immediacy or seriousness attached to these findings as the official report was not provided for nearly 90 days. However as you will note in our responses, corrective actions had already been initiated and in some cases, the non-compliance, for example, had already been completed.

The single item characterized as a non-compliance, four items of concern, and seven recommendations from the inspection report are reiterated below followed by our analysis and response.

Inspection Item of Noncompliance:

1. RH 4.28.4 and RH 4.30 of the Regulations require specific radiological postings to be used to identify radiological hazards. Contrary to this at the time of the inspection, it was noted that 4 drums containing radioactive material located at the north end of Vanadium/U processing building were posted with signage indicating the words "caution", the trefoil (radiation) symbol, "drum contents" and date (Refer to Image 1.1 and Image 1.2 of Attachment 1). This posting information is not consistent with the regulations. Containers of radioactive materials require posting as "Caution — Radioactive Material" in accordance with RH 4.30.

Similarly, radiological postings located near the north conveyor entrance of the building previously used for CaF processing, showed postings of "respiratory protection required" and the trefoil symbol (Refer to Image 2.1 and Image 2.2 of Attachment 1). Areas where respiratory protection is required must be posted as an "airborne radioactivity area" in accordance with RH 4.28.4.

The licensee should review all radiological postings to ensure that all postings used for radiological hazards are consistent with the requirements of RH 4.28 and RH 4.30.

This violation is a Severity Level IV and each type of this violation would have an associated civil penalty of \$625.

Cotter Response

The postings for radiological hazards were reviewed, updated or replaced shortly after the closeout meeting for this inspection. The personnel responsible for radiological postings have been instructed as to the specific information required on the postings to be consistent with the requirements listed at RH 4.28 and RH 4.30 of the Colorado Rules and Regulations Pertaining to Radiation Control.

The radiological postings that were in place were effective in instructing and notifying mill personnel of the potential hazards and required precautionary measures even though the wording was not exactly as specified in the regulations.

Inspection Items of concern:

1. An area between one CCD tank and a building has been posted as contaminated for an extended period but has not been cleaned up. Discussions with personnel indicated that the contamination and radiological posting in this area has existed for an extended period. Prompt cleanup or covering of spilled radioactive materials is necessary to minimize the potential for personnel contamination, and additional spread of contamination due to environmental conditions (Refer to Image 3 of Attachment 1).

Cotter Response

This area which is actually between the Primary Thickener and the Grind-Leach Building is posted as a precautionary measure to notify mill personnel of the material spillage. Final cleanup of this area is planned in the near future after nearby modifications to the primary thickener standpipe and relocation of pumps is completed.

In addition to the material cleanup a concrete pad will be installed to allow for containment cleanup and wash down to a containment collection sump if material spillage or leakage should occur.

2. Some records associated with the respiratory protection program did not indicate the date on which the inspection or maintenance activities were conducted. The form used for documenting respirator maintenance (form RH-180A issue 8-19-02) does not include a blank for documenting the date of the maintenance activity. This form requires modification to ensure that the date of respirator maintenance activities is documented. Similarly, records associated with calibration of general area air samplers do not have spaces for the name or signature for personnel performing the calibration. This may lead to questionable data. As a general rule, the licensee should review all procedures and forms used to document the radiation safety program and verify that spaces are provided for the name, signature, and date of the person performing the activity.

Cotter Response

The form used for documenting respirator maintenance (form RH-180A issue 8-19-02) has been approved by CDPHE as part of procedure RH-180. The calibration records pertaining to the general area air samplers included the date of calibration, and were initialed by the technician who performed the calibration even though a specific space was not provided.

Documentation forms associated with the recently approved procedures will be reviewed for improvement and modifications made if necessary. Barring the need for other changes the form will be modified to at least include a space for name, signature and date.

3. Signs and postings used to communicate requirements and information to mill personnel are sometimes vague as to whether they are a requirement or not, or signs are faded, too small to read, or are unclear. Unclear postings may lead personnel, contractors, or visitors into not complying with the requirements resulting in possible contamination spread or present a possible danger to personnel. Efforts must be made to improve all postings to clearly indicate the required actions and information (Refer to Image 4 of Attachment 1).

Cotter Response

The operating procedures manual already includes a mapping of the general, radiological, chemical and fire hazards in the milling facility buildings and areas. Continued efforts are planned using the ALARA committee members during their routine mill inspections to help identify which signage and/or postings are unclear, require replacement, need improvement, and to indicate which signage are requirements or ALARA reminders. The RMU is reminded that NRC Regulatory Guide 8.30 specifically cautions against too much signage in the Introduction wherein it states "If the fence and all entrances are posted and also state the words 'Any area within this UR facility may contain radioactive material' the entire area is posted adequately to meet the requirements in 10 CFR20.1902. Additional posting of each room with 'Radioactive Material' signs is not necessary and later 'The purpose of the signs is to warn workers where additional precautions to avoid radiation exposure are appropriate. Posting all areas in a UR facility with such signs defeats the purpose.'"

This Item of Concern (IOC) also relates to Recommendation 2 below. In that regard, upgrading of chemical and radiological postings is already underway.

4. During the inspection, movement and relocation of drums from the product storage building was observed. Four (4) drums located on pallets were moved by forklift with the drums secured to the forklift with only a small, inadequate rope. Industrial safety requirements would indicate that movement of four 55 gallon drums weighing in excess of 900 lbs. each require more secure transport. Inadequate securing of drums during transport may result in personnel injury, loss or damage to the drums, and possible personnel, equipment, and site radiological contamination (Refer to Image 5 of Attachment 1).

Cotter Response

The Utility Crew foreman performs an evaluation and instructs the personnel involved with this task of the necessary requirements to safely secure material being moved or transported. Depending on the specific situation, additional straps, use of a drum transport trailer or different forklift may be utilized.

It should be noted that these drums were molybdenum product and the average weight of the drums was 454 pounds and not 900 pounds as indicated by the inspector and that the rope was utilized to merely prevent the drum from tipping and not to hold the entire weight of the drum.

Inspection Recommendations:

1. Radiological instrumentation used for personnel self-survey exiting the mill site should be provided to mill personnel so that they are easy to use and they facilitate the required surveys. Instrumentation should be mounted to promote easy hand and foot monitoring or provide instruments with probe cables that are sufficiently long to reach the necessary survey locations.

Cotter Response

Longer detector cables will be obtained and installed on the instruments during recalibration of the

instruments by the manufacturer. This should allow easier use by the employees in performing the required contamination surveys. Other improvements to the survey trailer will be made as time allows.

2. Establish and implement a written risk based graded process for identifying areas having the most significant radiological hazards in the mill buildings and site. Use this approach to establish and apply access controls so that personnel are alerted – through postings and boundary controls - to those areas which present the greatest hazards so that appropriate radiological and non-radiological safety actions may be taken, including use of protective equipment, notification requirements, and Radiological Work Permit (RWP) requirements.

Cotter Response

Mill personnel are instructed of the radiological and non-radiological hazards at the facility during routine employee training sessions and also included in the mill operations manuals and procedures. Please also see the response to IOC #3 above.

3. Consideration should be given to establish one or more centrally located survey stations within the main mill building area for operations personnel to utilize when exiting mill process buildings. This will provide a first level of defense for contamination control from the personnel having the greatest risk of contamination spread, and may permit use of reduced survey requirements prior to final exit from the site.

Cotter Response

The evaluation for a supplemental personnel contamination survey station in the central mill facility complex is ongoing. The portable decon/survey trailer that was utilized during calcium fluoride material processing is available. We are also preparing a recently purchased modular for use as a central lunchroom/training room.

4. Emergency response drills, training, and exercises need to involve more diversity in the scenarios presented and should require more consistent involvement in key mill management personnel. (Note — this item was not specifically identified at the time of the inspection closeout meeting, but was observed during more in-depth review of inspection notes.)

Cotter Response

Emergency response drills involve personnel as described in the various emergency plans. The Mill Shift foremen are directly involved as incident commanders and other key personnel as necessary. Response drills have primarily focused on ammonia release. Future drills will involve all milling facility personnel.

5. The use of a single plastic bucket for collection of larger volume samples at residential wells located offsite of the Cotter Mill property should be discontinued. The use of a single bucket with minimal rinsing between sampling events can lead to cross contamination of samples and questionable data reliability. Laboratory or similarly appropriate sample containers should be taken directly to the well head for sample collection. Alternatively, and only where residents insist, water samples can be drawn directly from the end of the hose and into sample containers.

Cotter Response

Water samples are collected as specified in the approved water quality monitoring procedure EV-040. Samples are collected as close to the well head when possible, but due to the various types of water

pumps at residential locations a sampling bucket or container is required for collection of the sample. A dedicated laboratory type stainless steel sampling bucket is now being used for the sample collection.

6. The use of a water sampling "fish" for surface water sampling activities should include disposable sampling containers and use of a rinsing process with anionic and cationic detergents and multiple rinsing with deionized water between sampling locations. This cleaning process will help to eliminate bias in lower level environmental samples that may result in questionable data reliability.

Cotter Response

Surface water samples are collected following the protocol specified in the approved monitoring procedures EV-090 and EV-040.

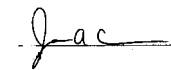
7. During sampling of well and surface water it was observed that no sampling equipment blank samples are being obtained. It is strongly recommended that a program of equipment blank samples be obtained at a rate of one equipment blank per sampling day or one equipment blank per 20 samples, whichever is greater. This type of program will aid in maintaining defensible data and provides baseline values for comparison.

Cotter Response

Equipment QA/QC blanks are collected each day when sample collection is being performed as specified in the approved procedure EV-040. The auditor was not inside the sampling camper when this sample was obtained.

If you have questions regarding this response please contact me at (719) 275-7413

Sincerely,



Jim Cain
Environmental Coordinator/
Radiation Safety Officer

cc: Mr. Pat Mutz
Mr. Steve Landau
Mr. Steve Tarlton