



Denison Mines (USA) Corp.
1050 17th Street, Suite 950
Denver, CO 80265
USA

Tel : 303 628-7798
Fax : 303 389-4125

www.denisonmines.com

February 5, 2009

Mr. Dane Finerfrock, Executive Secretary
Utah Radiation Control Board
Utah Department of Environmental Quality
168 North 1950 West
P.O. Box 144810
Salt Lake City, UT 84114-4810

Dear Mr. Finerfrock:

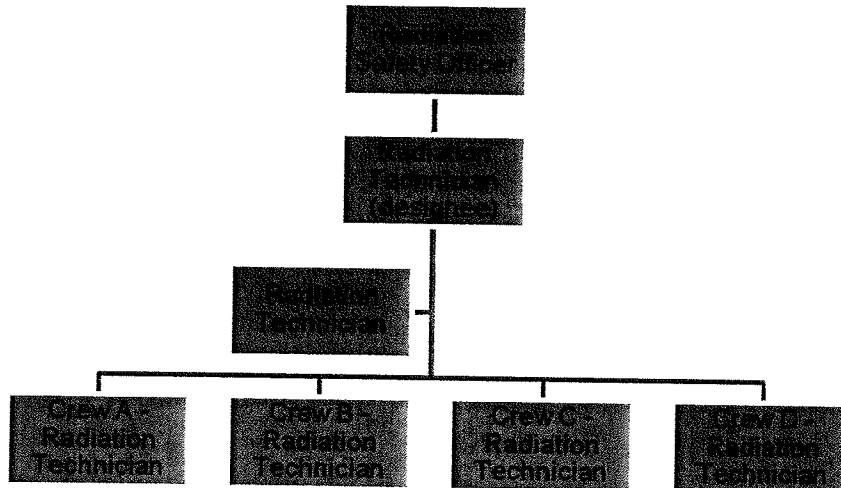
**Re: Interrogatory, Renewal Application for Radioactive Materials License (RML)
No.UT1900479**

In accordance with the Executive Secretary's correspondence of November 24, 2008, and received by Denison Mines (USA) Corp. ("Denison") on November 26, 2008, we have reviewed the first round of Interrogatories pertaining to the White Mesa Mill's (the "Mill's") February 2007 License Renewal Application (the "2007 License Renewal Application") and compiled necessary information in response to the Executive Secretary's request. Accordingly, each Interrogatory is shown in italics below, followed by Denison's response to the question and/or request for information.

- 1. Provide an organizational chart for the Mills Radiation Safety Department. Include the RSO's designee, if the RSO is not available; and the specific responsibilities of staff members.*

Denison Response:

The following is an organizational chart for the Mill's Radiation Safety Department:



The Lead Radiation Technician is responsible for day-to-day radiation monitoring at the Mill and takes a more senior role, under the supervision of the Mill's Radiation Safety Officer ("RSO") in assisting the RSO in implementing the Mill's radiation safety programs. The Lead Radiation Technician will direct and oversee the specific task assignments of the Radiation Technicians, all subject to the overall supervision of the RSO. In addition, Because of the Lead Radiation Technician's experience and aptitude, he or she is also provided more advanced radiation training at the radiation safety officer level.

The Lead Radiation Technician reports to the Mill's RSO, who ensures that the Lead Radiation Technician is doing his or her job in performing such monitoring and in performing his or her role in implementing the Mill's radiation protection programs. The RSO is responsible for ensuring that the Mill's radiation safety programs are adequate to meet all applicable regulatory requirements and to satisfy the requirements of the Mill's licenses and permits and are implemented appropriately.

The Mill's Radiation Technicians assist the RSO and Lead Radiation Technician in ensuring that the Mill's radiation safety programs and requirements are implemented. The Radiation Technician performs specific tasks under the direction of the RSO and Lead Radiation Technician. As the Radiation Technician gains more experience, he or she is given more responsibility in his or her tasks and is subject to less direct supervision by the RSO and Lead Radiation Technician. The Crew Radiation Technicians' responsibilities are mainly limited to release surveys of personnel and equipment out of the Mill's restricted area. As Crew Radiation Technicians gain more experience they may be given additional responsibilities. However, the RSO maintains ultimate responsibility to ensure that the Mill's radiation safety program is properly implemented in accordance with all applicable laws, regulations, permits and licenses. The Lead Radiation Technician and the other Radiation Technicians serve mainly to assist the RSO in performing that function. The levels of responsibility given to the Lead Radiation Technician and each Radiation Technician is commensurate with his or her qualifications and level of experience.

During the absence of the RSO, the Lead Radiation Technician is the RSO's "designee" and will fill in for the RSO on radiation issues. The designee will have the responsibility of oversight of the other Radiation Technicians and any other radiation issues that come up during that time. In order to ensure that non-routine or unusual circumstances are handled appropriately, the RSO is available by telephone or email 24-hours a day when not at the Mill, in order to provide any required guidance to the Lead Radiation Technician. If necessary, in the absence of the RSO, the Radiation Technician will perform certain of the Lead Radiation Technician's routine functions, such as supervising radiation monitoring etc. The Crew Radiation Technicians will continue on their assigned tasks with no additional assignments.

2. *Explain the training program that has been established for the mills Radiation Safety Technicians to qualify them to the NRC Regulatory Guide 8.31 Section 2.4.2 Standard. Also explain, how this training will continue to maintain a level of competence.*

Denison Response:

The training program that has been established for the Mill's Radiation Safety Technicians consists of a number of different stages, as described below:

Familiarization with Applicable SOPs, Permit and License Conditions, and Laws.

For all new trainee employees into the Radiation Safety Department, the trainee must first read and study the Mill's Standard Operating Procedures ("SOPs"), license and permit conditions and rules, regulations and guidance that are applicable to his or her duties and responsibilities.

Side by Side Training. After studying the applicable SOPs, license and permit conditions and rules and regulations, the trainee is paired with an existing Radiation Technician who walks the trainee through the procedures and shows the trainee how to apply the written procedures to day-to-day operations. During this side-by-side training, the trainee will begin performing some tasks under the oversight of the Radiation Technician or other qualified radiation safety personnel.

Radiation Safety Quiz. After radiation safety staff have determined that the employee is confident in the tasks he or she is performing (e.g., scanning) the trainee is given a written examination. The employee must pass the examination with a score of 70% or higher.

Probationary Period. The individual will continue to work on a monitored basis during a probationary period. The duration of the probationary period will vary from individual to individual, and will generally be longer for individuals with less educational background. During this period, the employee will be limited to the performance of certain specified activities. By limiting these activities, the employee will have a better understanding of the activities and will become equipped to perform the activities and operate the required instrumentation. The probationary period will end when senior

radiation safety staff are satisfied that the employee has demonstrated competence in and an aptitude for his or her assigned activities.

Monitoring of Performance on Additional Duties. After the successful completion of the probationary period, the trainee will be given more duties. Each additional duty will also be monitored by radiation safety staff to determine the trainee's competence in the activity before the trainee will be assigned further activities.

Offsite and Specialized Onsite Training. After the successful completion of his or her probationary period, the trainee will be sent offsite to attend a training course. The course curricula will vary. However, concepts of study will include, but not be limited to, basic radiation, instrumentation, effects of radiation, dosimetry, rules and regulations, radiological surveys and documentation. Offsite training will take place every two years, or more frequently when required by changes in policies and procedures. These offsite courses will also be supplemented by specialized training by senior radiation Staff, held on site. This training will include, but not be limited to, radiation work permits ("RWPs") issuance, alternate feed materials, personal protective equipment ("PPE") usage, respiratory protection and basic radiation.

Performance Reviews. Each year the Radiation Department employees will be rated as to their performance during the previous year. If an employee has a deficient rating, that employee will be placed on probation and then re-evaluated after 90 days. If the deficiency is not rectified after 90 days, the employee will be discharged from service.

Satisfaction of Reg Guide 8.31 Requirements. The Lead Radiation Technician will satisfy the qualifications for a Health Physics Technician under Section 2.4.2 of NRC Regulatory Guide 8.31, *Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Recovery Facilities will Be as low as is Reasonably Achievable*, Revision 1, May 2002 ("Reg. Guide 8.31") based on a combination of education and experience. The Lead Radiation Technician will have satisfied the training and experience requirements of Section 2.4.2 of Reg. Guide 8.31 by having gone through the training program set out above for at least one or two years, depending on his or her educational background. During this training period, the Lead Radiation Technician will have been provided a combination of on-the-job training and specialized training in radiation protection applicable to the Mill. In addition, once qualified as a Health Physics Technician in accordance with Section 2.4.2 of Reg. Guide 8.31, the Lead Radiation Technician will take additional training to prepare to become a Radiation Safety Officer in the future, should the need arise.

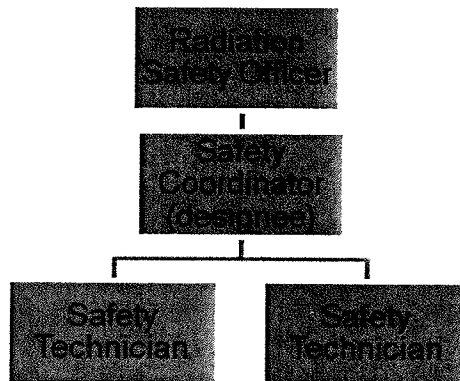
Denison believes that the combination of on-the-job training under the tutelage of experienced radiation safety personnel, combined with offsite specialized training once the trainee has enough practical experience on the job to fully understand such specialized training, provides the best environment for training inexperienced personnel. This has been proven to be a successful method of training new personnel in the Radiation Safety Department at the Mill over the years.

In addition, all radiation safety personnel, not just the RSO and the Lead Radiation Technician, are required to take offsite refresher training on Mill facility health physics every two years, and all radiation safety staff participate in periodic internal training sessions. Denison believes that this combination of internal and offsite training ensures that all radiation safety staff personnel maintain or improve their levels of competence.

3. *According to the Mills Organizational Chart the RSO is also responsible for the Occupational Safety Department. Provide an organizational chart for the Mills Occupational Safety Department. Include the RSO's designee in the Occupational Safety Department, if the RSO is not available, and specific responsibilities of staff members.*

Denison Response:

The following is an organizational chart for the Mills Occupational Safety Department:



The Safety Coordinator is responsible for day-to-day oversight of occupational safety at the Mill. He or she is responsible for ensuring that the Mill's safety programs are implemented and that all occupational safety requirements of applicable regulations are satisfied at the Mill.

The Safety Coordinator reports to the Mill's RSO, who ensures that the Safety Coordinator is doing his or her job in enforcing such safety programs and requirements. The RSO is responsible for ensuring that the Mill's safety programs are adequate to meet all applicable regulatory requirements, and is ultimately responsible for the implementation of the program. In the absence of the Mill's Safety Coordinator, the RSO is responsible for ensuring that the Mill's safety programs and day-to-day requirements are implemented.

The Mill's Safety Technicians assist the Safety Coordinator in ensuring that the Mill's safety programs and requirements are implemented. The Safety Technicians perform specific tasks under the direction of the Safety Coordinator or RSO. As the Safety

Technician gains more experience, he or she is given more responsibility in his or her tasks and is subject to less direct supervision by the Safety Coordinator.

During the absence of the RSO, the Safety Coordinator is the RSO's "designee" and is responsible for all aspects of the Occupational Safety program at the Mill, including the responsibility of oversight of the Safety Technicians and any other occupational safety issues that may come up during that time. In order to ensure that non-routine or unusual circumstances are handled appropriately, the RSO is available by telephone or email 24-hours a day when not at the Mill, in order to provide any required guidance to the Safety Coordinator. In the absence of the RSO, the Safety Technicians will continue on their assigned tasks under the supervision of the Safety Coordinator.

Depending on the qualifications and experience of a particular Safety Coordinator and the qualifications and experience of a particular RSO in occupational safety matters, the relative responsibilities of the Safety Coordinator and RSO may change over time. For example, it is possible in the future that a highly qualified and experienced Safety Coordinator may be given full responsibility for the Mill's occupational safety program and may not report to or be supervised by the RSO on occupational safety matters.

4. *Explain the training program that has been established for the mills Occupation Safety Technicians. Also explain, how this training will continue to maintain a level of competence.*

Denison Response:

The Mill's occupational Safety Technicians are required to meet set minimum educational/experience requirements, on the job training requirements, and specialized training requirements as described below:

Educational/Experience Requirements. The qualifications standards for a Safety Technician are as follows:

- 1) One year of service in an industrial setting in an operational or maintenance position; and
- 2) Either:
 - a. One year of service in the Mill's Safety Department as a trainee, or
 - b. An Associate's degree or higher from an accredited institution.

The Mill's Safety Coordinator and RSO are also required to have met these requirements or the equivalent.

Probationary Training Period. Each new hire in the Safety Department is subject to a probationary period. The length of the probationary period varies from individual to individual and continues until such time as the Safety Coordinator has determined that the individual has the required skills and experience to perform the required tasks.

During the probationary period, the technician in training will work side by side with experienced members of the Safety Department. During this time, the trainee will be expected to read and understand the applicable standards for the site. The Safety Coordinator will verify the technician's comprehension of the rules and requirements prior to presenting the trainee for full technician status. If the trainee is unable to fully understand the rules, regulations, inspections and other items needed by a technician, that employee will either be discharged or the probationary period will be extended until such time as the trainee has demonstrated the required competence.

Offsite Training. After completion of the probationary period, the new technician will attend an offsite training course. These courses will pertain to Occupational Health and Safety issues, and will include but not be limited to, MSHA and OSHA style course work. These offsite training courses will be taken by every Safety Technician initially after the end of the technician's probationary period and thereafter once every two calendar years of service, or more frequently when required by changes in policies and procedures. These trainings will also be supplemented with MSHA's annual informational courses.

Performance Reviews. Each year the Safety Department employees will be rated as to their performance during the previous year. If an employee has a deficient rating, that employee will be placed on probation and then re-evaluated after 90 days. If the deficiency has not been rectified, the employee will be discharged from service as a Safety Technician.

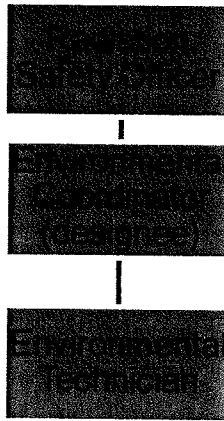
Maintaining Competence. Denison believes that the combination of on-the-job training under the tutelage of experienced occupational safety personnel, combined with offsite specialized training, once the trainee has enough practical experience on the job to fully understand such specialized training, provides the best environment for training inexperienced personnel. This has been proven to be a successful method of training new personnel in the occupational safety department at the Mill over the years.

In addition, all occupational safety personnel, not just the Safety Coordinator, are required to take offsite refresher training every two years, and all occupational safety staff participate in periodic internal training sessions. Denison believes that this combination of internal and offsite training ensures that all occupational safety staff personnel maintain or improve their levels of competence.

5. *According to the Mills Organizational Chart the RSO is also responsible for the Environmental Department. Provide an organizational chart for the Mills Environmental Department. Include the RSOs designee in the Environmental Department, if the RSO is not available, and specific responsibilities of staff members.*

Denison Response:

The following is an organizational chart for the Mill's Environmental Department:



The Environmental Coordinator is responsible for day-to-day environmental monitoring at the Mill and implementation of the Mill's environmental programs, under the supervision of the RSO.

The Environmental Coordinator reports to the Mill's RSO, who ensures that the Environmental Coordinator is doing his or her job in performing such monitoring and implementing such environmental programs. The RSO is also responsible for ensuring that the Mill's environmental programs are adequate to meet all applicable regulatory requirements and to satisfy the requirements of the Mill's licenses and permits. The RSO is ultimately responsible for the implementation of the Mill's environmental program. In the absence of the Mill's Environmental Coordinator, the RSO is responsible for ensuring that the Mill's day to day environmental programs and requirements are implemented.

The Mill's Environmental Technician(s) assist the Environmental Coordinator in ensuring that the Mill's environmental monitoring is performed and that the Mill's environmental programs and requirements are implemented. The Environmental Technician(s) perform specific tasks under the direction of the Environmental Coordinator or RSO. As the Environmental Technician(s) gain more experience, they are given more responsibility in their tasks and are subject to less direct supervision by the Environmental Coordinator.

During the absence of the RSO, the Environmental Coordinator is the RSO's "designee" and is responsible for all aspects of the environmental programs at the Mill, including the responsibility of oversight of the Environmental Technician(s) and any other environmental issues that may come up during that time. In order to ensure that non-routine or unusual circumstances are handled appropriately, the RSO is available by telephone or email 24-hours a day when not at the Mill, in order to provide any required guidance to the Environmental Coordinator. The Environmental Coordinator will also have the responsibility of shipping and receiving of hazardous materials and product in the absence of the RSO. In the absence of the RSO, the Environmental Technician(s) will continue on their assigned tasks under the supervision of the Environmental Coordinator.

Depending on the qualifications and experience of a particular Environmental Coordinator and the qualifications and experience of a particular RSO in environmental matters, the relative responsibilities of the Environmental Coordinator and RSO may change over time. For example, it is possible in the future that a highly qualified and experienced Environmental Coordinator may be given full responsibility for the Mill's environmental program and may not report to or be supervised by the RSO on environmental matters.

6. *Explain the training program that has been established for the mills Environmental Technicians. Also explain, how this training will continue to maintain a level of competence.*

Denison Response:

The qualifications standards for an Environmental Technician are as follows:

- 1) One year of service in an industrial setting, and
- 2) Either:
 - a. One year of service in the Mill's Environmental Department as a trainee, or
 - b. An Associate's degree or higher from an accredited institution.

In addition, the Mill's Environmental Coordinator and RSO are required to have also met these requirements or the equivalent.

Probationary Period. During the probationary period, the technician in training will work side by side with an experienced member of the Environmental Department. During this time, the technician in training will be expected to read and understand the applicable rules, regulations, license and permit conditions and applicable SOPs. The Environmental Coordinator will verify the technician's comprehension of these rules and requirements prior to presenting the technician in training for full technician status. If the technician in training is unable to fully understand the rules, regulations, inspections and other items needed by a technician, that employee will either be discharged from the Environmental Department or the probationary period will be extended.

Offsite Training. After the completion of the probationary period, the new technician will attend an offsite training course. These courses will pertain to environmental sampling, equipment maintenance, and or other areas of environmental concern as deemed necessary by the RSO. These offsite training courses will be taken by every Environmental Technician initially after the end of the technician's probationary period and thereafter once every two calendar years of service, or more frequently when required by changes in policies and procedures.

Performance Reviews. Each year the Environmental Department employees will be rated as to their performance during the previous year. If an employee has a deficient rating, that employee will be placed on probation and then reevaluated after 90 days. If

the deficiency is not rectified, the employee will be discharged from service in the department.

Maintaining Competence. Denison believes that the combination of on-the-job training under the tutelage of experienced occupational safety personnel, combined with offsite specialized training, once the trainee has enough practical experience on the job to fully understand such specialized training, provides the best environment for training inexperienced personnel. This has been proven to be a successful method of training new personnel in the environmental department at the Mill over the years.

In addition, all environmental staff are required to take offsite refresher training every two years, and all environmental staff participate in periodic internal training sessions. Denison believes that this combination of internal and offsite training ensures that all environmental staff maintain or improve their levels of competence.

7. *Explain how the RSO can effectively manage the extra Radiation Safety needs and requirements during an emergency if he is also acting as the mills Fire Chief.*

Denison Response:

The RSO/Fire Chief's responsibilities are primarily in preparing for potential emergencies and in coordinating activities during an actual emergency. Denison believes that the RSO is the best qualified person at the site to coordinate activities in the event of an emergency, because of his knowledge of all aspects of safety at the site. Because the RSO/Fire Chief will have established qualified teams to assist in an emergency, he or she will be able to effectively manage all of the radiation and safety needs during an emergency.

The RSO/Fire Chief has a number of responsibilities. The first is to create and train a fire team that is able to act professionally during an emergency event. The RSO/Fire Chief works with the Safety Department and the Safety Coordinator under 30 CFR 56.4330 firefighting, evacuation, and rescue procedures. The RSO/ Fire Chief makes sure that the team or crew has been established, equipped and properly trained every six months.

The RSO/Fire Chief's second responsibility is to ensure that, during an actual emergency, the appropriate crew or team has the available members needed to respond to the emergency. After the team or crew has responded and is in the process of handling the situation, the RSO/Fire Chief's third primary responsibility is to ensure that the Radiation and Safety Departments maintain scene safety. Scene safety includes, but is not limited to, crowd control, outside emergency assistance requests and any decontamination.

As indicated in the Appendix D – Emergency Response Plan, under the Section 5 organizational chart, the RSO/Fire Chief is responsible for the Emergency Response Teams. The key personnel who will be team leaders and assist the RSO/Fire Chief in the event of an emergency are the Safety Coordinator, the Lead Radiation Technician and the

other members of the Radiation Safety Department, who are all trained in their responsibilities in the event of an emergency.

During an emergency situation, the Safety Coordinator will be present and receive direction from the RSO/Fire Chief as to how to proceed. If the RSO is present during the emergency, the Safety Coordinator will act as the Assistant Fire Chief to free up the RSO's time to deal with radiation decontamination or other issues that may arise. If the RSO is not present, the Safety Coordinator will be the acting Fire Chief and the radiation designee will act as the Assistant Chief, but will only deal with radiation related issues.

If the Safety Coordinator is not present, those responsibilities fall to the next senior member of the Safety Department. Scheduled time off at the Mill is worked around the RSO's and Safety Coordinator's time off. At no time will both individuals be given time off, thereby ensuring supervised coverage in the event of an emergency.

One of the Emergency Response Teams includes the Radiation Technicians, led by the Lead Radiation Technician. That team is responsible for decontamination and surveys as needed during an emergency. The Mill has established an emergency call sheet that will require notification throughout the Radiation Safety Department. When an emergency occurs, the RSO/Fire Chief is notified and then the Lead Radiation Technician and/or Crew Radiation Technicians notify the off-shift Radiation Technicians. The Crew Radiation Technicians will maintain scene security until directed by the RSO to do otherwise. When the off-duty Radiation Technicians arrive, they will report immediately to the RSO and receive their instructions.

So, during an emergency, the RSO/Fire Chief works as a coordinator of his subordinates to maintain the proper flow of needs at this critical time. The RSO/Fire Chief is not acting as a fireman or necessarily performing radiation surveys himself, but as a manager of the scene to make sure all required activities are performed.

8. *Explain how the Radiation Safety needs at the mill are being managed if the RSO is responding offsite to a transportation accident.*

Denison Response:

The RSO manages the radiation safety needs at the Mill on a daily basis. He has been provided a staff of Radiation Safety Technicians, and of those technicians, one is the Lead Radiation Safety Technician who serves as a designee for the RSO. If the RSO must report to an offsite location, such as the scene of a transportation accident (or must be offsite for any other reason) the lead Radiation Safety Technician acts as his designee in his absence and has responsibility for radiation safety matters at the Mill. The RSO is equipped with a cell phone for direct contact while offsite should a question or other situation arise that is beyond the capability of the designated personnel.

If the RSO determines that there are more pressing radiation safety needs at the Mill at that time that require his personal attention, then the RSO will send one or more of his

staff to attend to any offsite needs such as a transportation accident. For most transportation to and from the Mill, the transportation contractor is required to have an emergency response/accident plan that usually provides for a qualified offsite contracting party to provide first response to a transportation accident. Mill personnel usually attend the accident site to assist, if necessary, and to provide specialized radiation safety monitoring and clean-up supervision. Radiation safety staff, other than the RSO, are trained to be able to provide such assistance to first responders in the event of an offsite transportation accident.

9. *Describe how the RSO allocated his time for his Radiation Safety, Occupational Safety, Environmental duties and any other duties assigned.*

Denison Response:

As is contemplated by Reg. Guide 8.31 at Section 2.1, “The RSO may be have other safety-related duties, such as responsibility for programs of industrial hygiene and fire safety, but should have no direct production-related responsibility.” The scheduling of the RSO’s time to accommodate these functions is undertaken on a daily basis, and how this time is allocated is directly related to the daily tasks at hand. The RSO is assisted in day-to-day operations by the Lead Radiation Technician, the Environmental Coordinator and the Safety Coordinator. It is the intention of Denison to advance the training of these three subordinate positions over time, but to still maintain the current RSO as the overall manager of the three departments.

Denison believes that it is fortunate at this time to have an RSO who has experience in radiation safety, occupational safety and environmental protection matters and who has the knowledge and experience to oversee all of these departments. Denison believes that this is better than having three separate and compartmentalized departments, each with its own department head. If Denison did not have an RSO with these qualifications, then it would be forced to go to a more compartmentalized structure, but Denison sees this as a disadvantage and not as a first choice given the current personnel.

However, depending on the qualifications and experience of a particular Safety Coordinator and/or Environmental Coordinator, the relative responsibilities of the Safety Coordinator, Environmental Coordinator and RSO may change over time. For example, it is possible in the future that a highly qualified and experienced Safety Coordinator and/or Environmental Coordinator may be given full responsibility for the Mill’s occupational safety program or environmental program, as they case may be, and may not report to or be supervised by the RSO.

10. *The submitted Emergency Response Plan does not sufficiently address all of Staff Emergency Assignments that should be covered. These include but not limited to Radiological Surveys and Assessments, Decontamination of the mills Personnel and Facility, First Aid and etc. Explain how the mill plans on addressing these and other issues in the event of an emergency.*

The Mill's current Emergency Response Plan was intended to comply with the portions of NRC Reg. Guide 3.67 *Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities* that are applicable to a site such as the Mill site in a level of detail that Denison believed was adequate for the Mill site. The Emergency Response Plan does not follow the format, or contain the level of detail on all matters, set out in the Reg. Guide, because it was thought that such detail and format was more suited to a site such as a nuclear power reactor and was overly complicated for a site such as the Mill.

However, Denison has reviewed its Emergency Response Plan against NRC Regulatory Guide 3.67, in light of your questions. We agree that the details cited above could be spelled out in more detail in the Plan. Currently, all assignments are given through the Fire Chief/RSO and he will assign available Radiation Safety Technicians, safety personnel and response teams to functions commensurate with their particular expertise. Given that these assignments are not fully described in the Plan and because a more formal codification of these functional assignments could be set out in the Plan, Denison proposes to re-evaluate its Emergency Response Plan and update the plan in accordance with the general guidelines of NRC Regulatory Guide 3.67. In so doing, Denison will change the format of the Emergency Response Plan to better track the requirements of Reg Guide 3.67, thereby making it easier for the Executive Secretary to determine, and consider, any differences between the provisions of the Mill's Emergency Response Plan and the guidance provided by Reg Guide 3.67. Denison will revise and re-submit its Emergency Response Plan within 60 days after the date of this letter.

11. *Provide the inspection procedure that discusses the inspection requirements of the alternate feed material that are stored in containers other than drums from when the mill takes acceptance of the material until they process the material.*

Denison Response:

Attached to this letter as Exhibit A is the Mill's *Containerized Alternate Feedstock Material Storage Procedure*, No. PBL-19, Rev.: No.:R-0, June 19, 2008. That procedure applies to all containerized feedstock material, whether contained in drums or other containers, and provides the inspection requirements from when the Mill takes acceptance of the material until it is processed. Therefore, it applies to super sacks as well as drums.

However, Section 3.1.1 of that procedure states that feedstock materials stored at the defined storage location (i.e. on the ore pad) can be stored in containers or in bulk form and are subject to the routine inspections described by the *White Mesa Mill Tailings Management System Discharge Minimization Technology (DMT) Monitoring Plan* as Section 3.3 a).

So, materials contained in super sacks, drums or any other container off of the Mill's ore pad are subject to specific controls and inspections as set out in PBL-19. However, any alternate feed materials stored, in super sacks or otherwise, on the ore pad are subject to the controls and inspections applicable to bulk materials stored on the ore pad.

At present, there are no alternate feed materials contained in super sacks off of the Mill's ore pad.

12. *Provide the procedure that discusses how alternate feed material that arrives in super sacks, placed on the ore storage pad and is exposed to the wind will be containerized.*

Denison Response:

The purpose of the super sack is to provide containment of the material during transport. While the sacks remain generally intact during off-loading, they can be torn or damaged as they are transferred to storage on the Mill's ore storage pad. Accordingly, super sacks are only stored on the ore pad where bulk material storage is contemplated. Such materials are managed on the ore pad in a manner similar to conventionally mined ores and bulk alternate feed materials, and are subject to the normal procedures applicable to bulk materials stored on the ore pad. These procedures include the airborne dust control measures described in Section 5.1.2 of the Mill's 2007 License Renewal Application and the procedures set out in Section 3 of Tab 3-3. *Tailings Dust Minimization*, in Appendix A to the 2007 License Renewal Application.

In addition to these procedures, and in accordance with the Mill's Approval Order issued by the State of Utah Air Quality Division (the "Air Approval Order"), the Mill has proposed to the Executive Secretary of the State of Utah Air Quality Board an additional work practice dust control program for the control of emissions during the handling and storage of bulk ore material, including transfer from the pad to process (see *White Mesa Mill Work Practice Standards for Control of Fugitive Dust-Ore Receipt and Front-End Loader Operations*, attached as Exhibit B hereto).

At present, FMRI materials are delivered to the Mill in super sacks and are stored in the super sacks on the ore pad. Some of the super sacks have been compromised in the unloading process and while managed on the ore pad. However, those materials are typically hardened and do not contain much in the way of fines that would be overly susceptible to dispersion by wind. The normal dust control measures applicable to bulk materials stored on the ore pad have therefore been considered to be more than adequate for those materials.

13. *Provide the procedure used to determine how and when alternate feed is to be processed through the mill.*

Alternate feed materials are "ores" and are stored on the Mill's ore storage pad, or in containers elsewhere on the site, pending processing, just like conventional ores are stored on the Mill's ore pad pending processing. This is a reality of uranium milling that has been contemplated in Mill design and approvals. Protections are in place, through facility design, license conditions and standard operating procedures, to ensure that any ores stored at the Mill pending processing are managed in a safe manner, with no significant threat to public health, safety or the environment.

The determination as to when a particular alternate feed material will be processed through the Mill will depend on a number of factors specific to each alternate feed material, including, the quantity of the material in stockpile at the site, the rate at which the materials are to be received at the site, the quantity and timing of receipt of other ores or feed materials available for processing at the time, the timing of scheduled Mill runs, the coordination of processing the materials in conjunction with or in logical sequence with other alternate feed materials or conventional ores in order to provide for a Mill run of sufficient duration, the compatibility of the materials with other materials, any process adjustments that must be made in order to process the materials and the extent to which such process adjustments coordinate with other ores being processed or scheduled for processing, economic conditions at the time, the availability of qualified personnel, the availability of tailings capacity, the need to perform maintenance on or make capital improvements to the Mill, etc. All of these factors vary from feed to feed and ore to ore and can change from year to year, depending on the overall status of Mill operations. The Mill has operated on a campaign basis for both conventional ores and alternate feed materials since its start up in 1980, and there can be no certainty in the timing of the start or finish of any particular Mill run. For these reasons, it is not possible to have a set procedure to determine when an alternate feed material or conventional ore is to be processed.

As to how an alternate feed material will be processed through the Mill, this will be determined on a feed-by-feed basis. If an alternate feed material can be processed through the Mill in accordance with existing Mill SOPs, or portions thereof, then no new procedures are required. If minimal changes are required to existing SOPs, and the processing run is short, then these changes can be accommodated through an RWP and/or a Safe Work Permit. If substantial changes are required to existing Mill SOPs in order to process the alternate feed material, and/or the processing run will be of significant length, then the Mill may develop new SOPs for a particular alternate feed material. Examples of such new standard operating procedures are *Heritage Alternate Feed Management* PBL-6 Rev. No.: R-1, Feb 14, 2003; *Potassium Fluoride (KF) Processing*, PBL-5, Rev. No.: R-0, April 20, 2005; *Standard Operating Procedures for Calcine Material Uranium Extraction Process* PBL-17, Rev. No.: R-0, October 25, 2005; and *Standard Operating Procedures for Re-Generation Uranium Extraction Process*, PBL-18, Rev. No.: R-0, April 30, 2007. These new procedures are generally developed through the Mill's Safety and Environmental Review Panel ("SERP") process.

14. *Release Surveys for Ore Trucks: Explain how the survey techniques, the release standards used and documentation of surveys of ore trucks are sufficient to demonstrate regulatory compliance and maintain public health and safety. Explain why surveying techniques such as the use of Large Area Wipes to look for removable contamination are not being used in surveys for release.*

Denison Response:

Denison's release survey procedure for ore trucks is consistent with NRC Regulatory Guide 8.30, *Health Physics Surveys in Uranium Recovery Facilities* ("Reg. Guide 8.30") at Table 2 and Section 2.7, which specifies that "Surface contamination surveys should be conducted before potentially contaminated equipment is released to unrestricted areas. The surface contamination limits listed in Table 2 are recommended".

Section 4.0 of the Mill's *End Dump Trailer Acceptance, Handling and Release*, procedure PBL-9, Rev. No.: R-0, a copy of which is attached to this letter as Exhibit C, provides that:

"All end dump trailers and trucks will be decontaminated after unloading prior to leaving the Mill. Generators or transporters will notify [Denison] whether a specific trailer is to be released for restricted or unrestricted use. Any trailers that are to be released for restricted use will be decontaminated according to the requirements contained in U.S. Department of Transportation (DOT) Part 49 CFR 173.441(b) and 173.443 (copies attached). Any trailers that are to be released for unrestricted use will be decontaminated according to the requirements found in Table 1 of the Nuclear Regulatory Commission's (NRC's) Policy and Guidance Directive FC-85-23, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material" issued May 1987 (copy attached). Trailers requiring repair will be decontaminated for unrestricted release, to facilitate repairs by the transporter at the transporter's own site. Trailers may be repaired without undergoing full decontamination if repaired within the Restricted area of the Mill."

Restricted Release. At the Mill the ore trucks are consigned as "exclusive-use" vehicles for the shipment of Low Specific Activity Material (LSA-1). As such, these vehicles are used for uranium ore shipments only, and their use is restricted accordingly. As exclusive use shipments, the trucks remain marked in accordance with the requirements of the U.S. Department of Transportation ("DOT") until they are no longer used for that purpose, at which time each truck is subjected to a survey for unrestricted release. During the exclusive use arrangement, the interior of the transport trailer is not decontaminated between shipments; however, the trailer must remain closed by means of its protective cover to preclude access and preclude release of material from the interior surface. These exclusive use vehicles are subjected to a restricted release survey until such time that they are no longer shipping uranium ore.

As stated in the excerpt above, any trailers that are to be released from the Mill's restricted area for restricted use will be decontaminated according to the requirements contained in DOT Part 49 CFR 173.441(b) and 173.443. Section 173.443 provides that a

determination of whether or not the applicable release limits have been achieved can be accomplished in one of two ways:

- a) By taking 300 square centimeter swipes in a sufficient number of areas in the most appropriate locations to yield a representative assessment; or
- b) By using other methods of assessment of equal or greater efficiency.

Restricted release surveys for exclusive use vehicles involve a survey of the exterior of the vehicle prior to release on public roadways. This survey occurs after routine decontamination of the vehicle's exterior and is conducted by means of portable alpha detection equipment. The portable meters measure *combined removable and fixed contamination* directly from the monitored surface and, as such, the measurement does not discern removable from fixed contamination. Alternately, the "Large Area Wipes" referred to in paragraph a) above measure only the removable contaminants. resulting performing its release surveys, Denison applies the more restrictive limits applicable to removable contamination to the combined fixed plus removable measurement attained by this particular monitoring method. Using portable alpha detection equipment that measures the combined fixed and removable contamination is therefore "another method" contemplated by paragraph b) above of "equal or greater efficiency", because the Mill applies the removable contamination standard to a combined reading of fixed and removable contamination. If the trailer passes the survey, then the combined fixed and removable contamination levels must be less than the standard for removable contamination, and hence the removable contamination must also be less than that standard.

In applying this more conservative approach, all contamination on the exterior of these vehicles is maintained below 1000 dpm/100 cm², even though the Table 2 limits would allow up to 15,000 dpm/100 cm² on an individual fixed contamination reading and an average fixed reading of up to 5,000 dpm/100 cm² for areas up to 1 m². Denison's practice is conservative in that it limits contaminants to the more restrictive removable limit for all contamination and is therefore ALARA and in compliance with the requirements of 49 CFR 173.443 and the Mills SOPs.

Unrestricted Release. Release surveys for ore trucks that are being released for unrestricted use, include the same procedures as those for restricted release, except that the interior of the ore transport trailer is included in the survey and all DOT markings are removed from the vehicle. The applicable standards are those set out in Table 1 of the NRC Reg. Guide referred to above. Again, since the ore truck will only be released if the combined fixed and removable contamination is less than the standard set out in Table 1 of the Reg. Guide for removable contamination alone, the Mill's approach is ALARA and in compliance with the requirements of the Reg Guide and the Mill's SOPs.

15. *Release Surveys for Intermodals: Explain how the survey techniques, the release standards used and documentation of surveys of Intermodals that contain, may contain or have contained radioactive material are sufficient to demonstrate regulatory compliance and maintain public health and safety. Explain why surveying techniques such as the use*

of Large Area Wipes or Swipes to look for removable contamination are not being used on Intermodals being surveyed for release.

Denison Response:

Intermodal containers are treated in the same fashion as the ‘exclusive use’ ore trucks referred to in Item 14 above.

Section 4.0 of the Mill’s *Intermodal Container Acceptance, Handling and Release*, procedure PBL-2, Rev. No.: R-3 contains similar language to Section 4.0 of the Mill’s *End Dump Trailer Acceptance, Handling and Release* procedure referred to above. A copy of the Mill’s *Intermodal Container Acceptance, Handling and Release* procedure is attached as Exhibit D to this letter.

Please see the discussion in Item 14 for an explanation as to how the survey techniques are sufficient to demonstrate regulatory compliance and maintain public health and safety.

16. *Release Surveys for Product Drums: Explain how the survey techniques, the release standards used and documentation of surveys of Product Drums that contain radioactive material are sufficient to demonstrate regulatory compliance and maintain public health and safety. Explain why surveying techniques such as the use of Large Area Wipe or swipes to look for removable contamination are not being used on all Product Drums being surveyed for release.*

Denison Response:

Product drum surveys are performed in the same fashion as the surveys performed for ‘exclusive use’ ore trucks referred to in Item 14 above, with the additional requirement to perform alpha swipes in certain circumstances. Please see the discussion in Item 14 for an explanation as to how the survey techniques are sufficient to demonstrate regulatory compliance and maintain public health and safety.

The procedures applicable to product drum release surveys are set out in Section 2.7 of the Mill’s *Radiation Protection Manual* for uranium product shipments and in the Mill’s procedure “*Release and Shipping of Vanadium Blackflake*” No. PBL-15 Book 10 for vanadium product shipments.

As with ore trucks and intermodal containers, the procedures require that a survey of total fixed and removable contamination be performed using a hand-held meter. If the measurement for combined fixed and removable alpha exceeds the standard for removable alpha alone, than an alpha swipe must also be performed. To this extent, the procedures are similar to the procedures applicable to the release of ore trucks and intermodal containers, and satisfy the Mill’s ALARA goals and applicable regulatory requirements, for the reasons discussed in Item 14 above. However, in addition to these requirements, the procedures also require that, even if the measurement for combined

fixed and removal alpha contamination does not exceed the standard for removable contamination, a swipe test must be performed on at least 25% of the product drums. This additional test is intended to provide quality assurance that the primary surveying method provides the required outcome.

It is not correct to say that a removable survey will only be performed on 25% of the product drums. As discussed above, if the measurement for total alpha activity exceeds the standard for removable alpha activity on all drums, then a removable survey must also be performed on all drums.

It should be noted that Section 2.8 of Reg Guide 8.30 states that:

“After being filled, yellowcake packages should be washed down to remove surface contamination. Surveys of external surfaces of yellowcake packages prepared for shipment should be carried out before shipment. The surveys conducted should be adequate to ensure that the wash-downs are reducing surface contamination levels to less than Department of Transportation (DOT) limits, *but do not necessarily include a survey of each package*. The bottoms of all barrels should be surveyed to determine the effectiveness of the wash-downs.” [Emphasis added]

17. *Release Surveys for Equipment: Explain how the survey techniques, the release standards used and documentation of surveys of Equipment are sufficient to demonstrate regulatory compliance and maintain public health and safety. Explain why surveying techniques such as the use of Large Area Wipes and swipes to look for removable contamination are to be used on all items being surveyed for release.*

Denison Response:

Release surveys for equipment are performed in a similar fashion as the surveys performed for ‘exclusive use’ ore trucks referred to in Item 14 above, with the additional requirement to perform beta gamma surveys in certain circumstances.

The procedures applicable to equipment release surveys are set out in Section 2.6 of the Mill’s *Radiation Protection Manual*, which is included in the Mill’s 2007 License Renewal Application.

Please see the discussion in Item 14 for an explanation as to how the survey techniques are sufficient to demonstrate regulatory compliance and maintain public health and safety.

18. *Designated Eating Areas within the Restricted Area: Explain the justification of having designated eating areas and the number of eating areas within the restricted area.*

Denison Response:

Reg. Guide 8.30, at Section 2.5, *Surveys for Surface Contamination in Restricted Area*, page 12, contemplates that uranium recovery facilities may designate non-production rooms within the facility's restricted area for eating purposes. In this regard the NRC states: "In rooms where work with uranium is not performed, such as eating rooms, change rooms, control rooms, and offices, a lower level of surface contamination is likely to be present. These areas should be spot checked weekly for removable contamination using smear tests."

In accordance with the NRC's recommendation, designated eating areas in the Mill are spot checked on a weekly basis, and removable contamination is limited to 1000 dpm/100 cm², with an ALARA goal of 200 dpm/100 cm² (one fifth of the limit applied to materials to be released for unrestricted use).

Because it has been observed that these designated areas can be kept within the limits prescribed by the NRC and within Denison's ALARA goal, construction of offsite facilities is unwarranted.

The number of eating areas within the Mill's restricted area is kept to a minimum, in order to minimize the number of locations that require added management to ensure that contamination levels are ALARA and within regulatory limits. The criteria for determining designated eating areas is discussed in the following Item.

19. *Designated Eating Area within the Restricted Area: Define the criteria used for determining designated eating areas within the Restricted Area.*

Denison Response:

Designated eating areas within the restricted area must first fulfill the criterion prescribed by Reg. Guide 8.30 referenced in Item 18 above (i.e. those areas "where work with uranium is not performed"). In addition to this overriding criterion, the Mill requires that each designated eating area be in a location where there is little likelihood of contamination and where controls can be established to ensure that any chance of contamination can be managed in a way that satisfies the Mill's ALARA goals and applicable regulatory requirements.

Section 2.2.2 Policy for Eating-Restricted Area in the Mill's *ALARA Program* lists nine locations that may be designated by the RSO from time to time as eating areas. That list is not intended to be exhaustive, and other areas that meet the foregoing criteria may be designated from time to time by the RSO as eating areas. Which of the possible suitable locations are designated by the RSO at any particular time as eating areas will depend on the operations and activities at the Mill at the time. The RSO will generally designate the minimum number of areas needed to efficiently accommodate the needs of workers at the Mill, without requiring workers to leave the restricted area or venture too far from their

work areas. Because additional effort is required to manage eating areas, any areas that are not needed to accommodate workers will be designated as non-eating areas, until such time as they may be re-designated as eating areas, if the need arises.

Currently, the Mill has established one area in the restricted area that is designated primarily for eating (i.e., the lunch/training room, located on the second floor of the warehouse building). The only other locations in the restricted area where eating may occur at this time are in the supervisors' offices and in the Scalehouse. In addition to these locations in the restricted area, the main office administrative building, which is not located in the Mill's restricted area, is also an eating location. Uranium work is not conducted at any of these locations, and spot surveys confirm that contamination of eating surfaces is being maintained ALARA and within regulatory requirements.

20. *Breathing Zone Sampling Sheet: Explain why the sampling form does not have the name of the individual wearing the air sampler and why the names of the individuals working with the assigned employee are not on the form.*

Denison Response:

Section 1.1.2.6 of the Mill's *Radiation Protection Manual* (Appendix E to the 2007 License Renewal Application) states that the data maintained "on file" includes the "Individual's name, identification number, etc." It does not specifically require that such information be contained on the sampling form itself, nor does it state that the names of the individuals working with the assigned employee must be included on the form.

On the Breathing Zone Sampling Sheet, there is a comment section. In the comment section, the Radiation Technicians have the choice of either indicating the individual's name or other information that will allow Mill radiation safety staff to track the individual wearer or others associated with the sampling event. For example, rather than stating an individual's name, the form may record an RWP number or it may be labeled as to which crew and location was involved in the sampling. In either case, Mill radiation staff is able to use that information to tie back to the individuals involved. To the extent possible, the Mill has deliberately tried to limit the inclusion of names on the forms in the Monthly Radiation folders. Instead, Mill staff has tied numbers to samples that can be tracked to other paperwork where more detailed information, such as names of affected individuals can be found.

If an RWP is referred to on the form, the RWP will indicate the Breathing Zone number which will track to paperwork showing the readings collected. The RWP form will list all parties involved with that air sampling, and each employee will be attributed that direct reading into his or her exposure record.

The Mill has found that by applying this technique, it is possible to manage the information in the Monthly Folders while not creating documentation that is cluttered and confusing.

As for random samplings, such as periodic Breathing Zones during normal activities, it is easy to track the sample results to the individual working in that area without having to assign his or her name to a document. This is because each area will have only one assigned operator to a given circuit during that shift. If a maintenance activity requires a Breathing Zone sample, then that activity will be documented with an RWP or other permits that will contain the information needed to track the names of the affected individuals.

21. *Provide [the] SOP for using the DRY CAL or equivalent for calibrating air sampling equipment.*

Denison Response:

The following has been added to the Mill's *Radiation Protection Manual*:

“3.2.3 Electronic Calibration Method

The electronic primary gas flow calibration is the primary calibration method and does not require corrections to or from standard conditions for temperature and pressure. Personal air samplers are calibrated for the flow rate for the sampling being performed, typically 2 – 4 liters per minute.

The equipment utilized is as follows:

- 1) UltraFlo Primary Gas Flow Calibrator, or equivalent
- 2) Soap solution
- 3) Tubing
- 4) Small screwdriver
- 5) Sample pump

The procedure proceeds as follows:

- 1) Remove the two nipples on the back of the UltraFlo Primary Gas Flow Calibrator.
- 2) Attach the connection tubing from the top nipple to the sample pump.
- 3) Turn calibrator on
- 4) Turn sample pump on
- 5) Press the plunger style button on top of the soap dispensing portion of the device.
- 6) Write down the digital reading from the calibrator device.
- 7) Repeat steps 5 and 6 three times.
- 8) Take an average of the three readings.
- 9) If the sample pump requires adjustment, take the screwdriver and adjust the set screw on the face of the sample pump and then repeat steps 5 through 7.
- 10) After the sample pump is calibrated, document the calibration on the Breathing Zone/Radon Calibration Sheet, in the Radiation department.
- 11) Replace nipple caps on the back on the calibrator.”

22. *Dust Control: Explain the site inspection interval and the standard used to implement dust control measures on the ore pad.*

Denison Response:

The procedures applicable to dust control on the ore pad are described in Section 5.1.2 of the Mill's 2007 License Renewal Application and in Section 3 of Tab 3-3, *Tailings Dust Minimization*, in Appendix A to the 2007 License Renewal Application.

Under these procedures, a daily inspection of the ore stockpile area for dusty conditions will dictate if dust suppression measures are necessary. If dusty conditions are present, the roadways and/or stockpiles will be sprayed with water or stabilized to minimize dusting. If dusting is observed while transferring ore to the Grizzly from either roadways or stockpiles, water applications will be applied to minimize dusting. The number of applications, time of application, and location of application is documented and kept on file in the Radiation Office. Weekly inspections of the stockpile area are conducted to evaluate the effectiveness of dust control measures.

The standards applicable to, and additional procedures used to implement, these dust control measures on the ore pad are set out in Sections 15 through 26 of the Mill's Air Approval Order, under the heading "Roads and Fugitive Dust". Those sections require the Mill to abide by all applicable requirements of R307-205 for fugitive emission and fugitive dust sources. They also require that visible fugitive dust emissions from haul road traffic not exceed 20% opacity and set out detailed procedures for determining opacity. The Air Approval Order also sets limits on drop distances for front-end loaders and truck dumping operations and for the speed of scrapers while loading and dumping.

In recent consultations with the Executive Secretary of the Division of Air Quality, the Mill has proposed an additional work practice dust control program for the control of emissions during the handling and storage of bulk ore material, including transfer from the ore pad to process (see the *White Mesa Mill Work Practice Standards for Control of Fugitive Dust-Ore Receipt and Front-End Loader Operations*, which is attached as Exhibit B to this letter).

23. *Explain why a new employee is not always issued an external monitoring device prior to being allowed to work inside the restricted area.*

Denison Response:

Prior to the May 28, 29, 2008 inspection, the Mill provided every employee an OSL device after they were hired at the Mill. Because it takes some time to order and receive OSL badges, there were circumstances where the new employee's OSL badge was not available until some period of time (up to a few weeks) after the employee started work at the Mill. In those circumstances, for the period of time that the worker did not have his or her own OSL badge, the worker was assigned a dose equal to the highest dose measured for workers in his or her area of the Mill or job description.

However, after the May 28, 29, 2008 inspection, the Mill changed its practice. Now, the Human Resources department at the Mill is required to provide the Radiation Safety Department with the required information for OSL purchase two weeks prior to the training period for new hires. By doing this, the OSL devices are on site when the new hires start their training period.

However, if an emergency hire situation occurs, the new hires are each given a generic extra badge that the Mill maintains on site. These extra badges are maintained in their shipping packages and away from all radiation emitting sources. The badges are also stored at the Mill with control badges to verify that the area of storage is proper. The extra badges will then be issued to the new employees until their permanent badges arrive. Once the permanent badges arrive, the Radiation Department will change out the badges and then send off the extra badges for reading. Any exposure that is recorded on an individual's extra badge is then assigned to that individual's personnel exposure record.

As a result of the foregoing, the statement in Volume 1 Section 6.4.1 Mill external Radiation Monitoring of the 2007 License Renewal Application, which states that an OSL badge or equivalent will be issued to new employees that will be working in the Restricted Area within 30 days of employment is no longer accurate. Section 1.3 of the Mill's *Radiation Protection Manual*, which deals with Beta-Gamma Surveys, does not refer to such a 30-day period.

24. *Explain why external monitoring devices are allowed to be worn on the hard hats of individuals working inside the restricted area.*

Denison Response:

The question as to whether or not it is appropriate for Mill workers to wear their OSL badges on the back of their hardhats, as opposed to on their torsos, was under discussion between the Executive Secretary and Denison for some time. This resulted in tests being performed by Denison to see if there were any significant differences in the dose measurements to workers depending on whether the badge was worn on the torso or on the back of the hardhat. While the results from these tests did not indicate a significant difference, Denison agreed that it would change its practice to require all workers to wear their OSL badges on the torso. This change was implemented on September 12, 2007.

However, although this change has been implemented and training sessions have reflected this change since that date, Section 1.3.1 of the *Radiation Protection Manual* and the *Training Manual* have not been amended to reflect this change. At this time, those procedures are being changed to indicate that all OSL devices must be worn on the torso of the body as required in R313-15-503(1). All employees have been instructed as to the proper location of the individual monitoring device and the associated disciplinary actions for the failure to wear the device in the proper location.

25. *Demonstrate that the Radiation Safety Program covers all of the material that is outlined in NRC Reg. Guide 8.31 Section 2.5 Radiation Safety Training. Explain in detail how this training is documented.*

Denison Response:

The training for all employees, consists of material presented in Appendix J Training Manual Addendum 9: *Radiation Protection* and in the *White Mesa Mill Safety Handbook*. The actual outline of the training is spelled out under the *Training Outline for Newly Hired Employees*. The outline set out in Appendix J *Training Manual* Addendum 9 is the outline for annual refresher training. The breakdown of the training session is attached as Exhibit E to this letter.

The training session begins with the introduction of the Mill, regulatory agencies that govern the Mill's activities, milling process, history of the facility, emergency escape and evacuation procedures, rights of employees and bioassay sampling. During this introduction the staff also introduces the *White Mesa Mill Safety Manual*. In the *White Mesa Mill Safety Manual* starting on page 13, issues with "RADIATION AND YOUR WORK" are discussed.

Topics covered under the White Mesa Mill Safety Manual are as follows:

- 1) What is Radiation?
- 2) Why are we concerned about radiation?
- 3) What are the different types of radiation?
- 4) Posting of specific areas
- 5) Radiation Safety Procedures
- 6) Radiation Work Permits
- 7) Radiation Exposure Monitoring

The next area of coverage is the introduction of the Alpha Survey and importance of a proper frisk. An explanation is given as to why the survey is required. Each employee must demonstrate that he or she understands and can perform a proper survey.

A video is then shown: *Practical Radiation Safety*. This video covers health effects of radiation, benefits of radiation, types of radiation and an explanation of internal and external dose. The video also discusses PPE usage for the different kinds of radiation, natural sources of radiation, dose limits for the public and occupationally exposed individuals, ALARA and precautions to reduce dose.

After the video there is a general discussion about the following:

- 1) Radiation – such as health effects of radiation, benefits of radiation, types of radiation, and explanation of internal and external dose, including pathways to exposure;
- 2) Different alternate feed materials and the makeup and exposure potential with each;

- 3) Designated eating, drinking and smoking areas;
- 4) Exposure limits mandated by NRC;
- 5) The Radiation Department's responsibility and how Radiation Safety Staff measures radiation and monitor exposures;
- 6) Annual reporting to each employee on exposures received;
- 7) Requests for previous exposure history from other sites;
- 8) DAC and radiation postings;
- 9) Importance of Bioassays samples;
- 10) RWP's;
- 11) ALARA;
- 12) The employee's responsibility with regard to radiation protection;
- 13) Restricted Area and a proper alpha frisk;
- 14) OSL's;
- 15) TEDE;
- 16) Ways to reduce exposure – time, distance and shielding;
- 17) The importance of the exposure time sheets;
- 18) The use and types of PPE (i.e. respiratory protection, cleanliness, eating areas); and
- 19) If applicable, discussion with any women regarding the Radiation Exposure to Pregnant Women Training.

During the training, there are several forms that are used to document the process. Those forms are:

- 1) Attendance sheet to document that an individual was in the class;
- 2) Previous exposure history request for employees that worked at other sites having exposure monitoring;
- 3) Sign off sheet for women on the Radiation Exposure to Pregnant Women Employees;
- 4) Sign off sheet for Personal Alpha Monitoring scan training; and
- 5) Radiation Protection Quiz.

Throughout the training sessions, oral questions are posed to each employee to verify that the employees are understanding topics

Other topics referred to in Section 2.5 of Reg. Guide 8.31 under the heading *Facility-Provided Protection*, such as ventilation systems and effluent controls, cleanliness of the work place, features designed for radiation safety for process equipment, security and access control to designated areas, electronic data gathering and storage, and automated processes, to the extent not covered above, are included in other topics covered during the 24-hour training session for new-hires, of which the radiation training is a part.

Denison is confident that its current training program covers all of the topics required under Reg. Guide 8.31 and provides thorough training for its employees in order to ensure their safety and the safety of the public and the environment. However, Denison agrees that the Mill's radiation safety training program is currently not structured so as to

allow for an easy comparison of the topics covered and the requirements of Reg. Guide 8.31. Therefore, Denison will rewrite the Mill's radiation safety training program so that the topics covered line up better with the topics outlined in Section 2.5 of Reg. Guide 8.31, to allow for a more direct comparison of the training program to those requirements. Denison will submit the revised training program to the Executive Secretary for review within 90 days after the date of this letter.

26. *Demonstrate that the Respiratory Protection Program covers all of the material that is outlined in NRC Reg. Guide 8.15 Section 5.2 Training.*

Denison Response:

The Mill's Respiratory Protection training program is intended to cover all of the material that is outlined in NRC Reg. Guide 8.15 Section 5.2 *Training*. In the following paragraphs, the seven bullet points set forth in Section 5.2 of Reg. Guide 8.15 are reproduced, followed by a statement that indicates which paragraphs of the 2007 License Renewal Application Appendix J: *Training Program Addendum 10: Respiratory Program*, address these bullet points:

- “Be informed of the hazard to which the respirator wearer may be exposed, the effects of contaminants on the wearer if the respirator is not worn properly, and the capabilities and limitations of each device that may be used.”

This information is contained in Items B and D of Appendix J, Addendum 10.

- “Be shown how spectacle adapters, communications equipment, and other equipment that will be used directly in conjunction with the respirator are to be attached and operated properly.”

At the Mill, we only use the spectacle adapters. During training, the use of spectacle kits is only mentioned for those needing eye wear. Once an individual has presented a prescription for eye wear, Denison will purchase the kit for them. When the spectacle kit arrives on site, the Safety Department will instruct the wearer individually and go over the proper maintenance, care and installation of the spectacle kit before the employee is allowed to leave with the device.

- “Be able to demonstrate competency in donning, using, and removing each type of respiratory protective device that may be used.”

This information is contained in Items D and E (2) of Appendix J, Addendum 10.

- “Be instructed in how to inspect each type of respiratory device that may be used and be instructed to perform such an inspection before donning any device.”

This information is contained in Items D and E of Appendix J, Addendum 10.

- “Be instructed in how to perform a user seal check on face-sealing devices and be instructed to perform this user seal check each time this type of device is donned.”

This information is contained in Item E of Appendix J, Addendum 10.

- “Be informed that any respirator user may leave the work area at any time for relief from respirator use in the event of equipment malfunction, physical or psychological distress, procedural or communications failure, significant deterioration of operating conditions, or any other condition that might necessitate such relief.”

This information is contained in Item G of Appendix J, Addendum 10.

- “Be advised that in case of respirator malfunction or wearer distress, the respirator may be removed as the respirator user exits the airborne contamination area.”

This information is contained in Item G of Appendix J, Addendum 10.

Denison is confident that the topics required under Reg. Guide 8.15 are covered by the Mill’s respiratory training program, as summarized in Appendix J of the 2007 License Renewal Application. However, Denison agrees that the Mill’s respiratory protection training program is currently not structured so as to allow for an easy comparison of the topics covered and the requirements of Reg. Guide 8.15. Therefore, Denison will rewrite the Mill’s respiratory protection training program so that the topics covered line up better with the topics outlined in Section 5.2 of Reg. Guide 8.15, to allow for a more direct comparison of the training program to those requirements. Denison will submit the revised training program to the Executive Secretary for review within 120 days after the date of this letter.

The summary of respiratory protection training program set out in Section 2.3 of the Mill’s Respiratory Protection Program included as Appendix L to the 2007 License Renewal Application will also be amended accordingly to reflect the changes to the respiratory protection training program.

27. *Explain what is considered a passing score for tests (i.e. Radiation Safety, Respiratory Protection, standard Operating Procedure, etc.). Explain what is done when an employee fails a test. Explain how many times an employee is allowed to fail a test before they are not allow[ed] to perform the task. Explain in detail how this testing is documented.*

Denison Response:

At the Mill, a passing score on any written test or examination is 70% or higher. Anything less than that is considered a fail.

If an employee fails a test, the employee must be re-trained on the subject matter of the test. The employee is authorized to take the examination only three times. If the examination is failed for the third time, the employee will be discharged.

In special circumstances, if an employee cannot read or is unable to understand the test questions in English, the test can be administered orally to the individual. Responses are gathered from the oral examination on the test sheet and the employee will make his or her mark. The same pass/fail criteria will apply in these circumstances. A passing score is 70%, and if the employee fails three times he or she is discharged from service.

Each employee must demonstrate that he or she is able to don, use and remove each type of respiratory device that may be used at the Mill. This demonstration is performed in front of the trainer, and is a pass/fail situation. No written statement is required for this demonstration. If the instructor does not feel the employee has successfully performed these steps, the employee is sent to another instructor for remedial assistance.

All tests taken, including failed examinations are maintained in the appropriate employee records. Examinations administered by the Radiation and Safety Departments are maintained in the records housed in those Departments. All SOP examinations, or other examinations required for an employee's assigned operational duties, are maintained in the records housed in the various other departments that administered the examinations. These records are maintained throughout the employee's tenure at the Mill.

Training is given to employees on each applicable SOP. This training is documented by the signed acknowledgement of the employee that he or she attended the training session and understands the subject matter. These acknowledgment sheets are also signed by the supervisor that administered the training session. These sign off sheets on the SOPs are completed by operations personnel on all circuits. Disciplinary action will be taken against any employee who fails to gain the understanding of an SOP/circuit prior to engaging in activities that are covered by the SOP. This documentation is maintained in the Mill Superintendent's office.

28. *Provide a complete list and copies of all operating procedures used at the mill. Explain how employees are trained on the procedures they use. Explain where procedures are kept and how employees have access to the procedures that they use.*

Denison Response:

Attached to this letter as Exhibit E is a list of all standard operating procedures at the Mill. The list also indicates where copies of each procedure are maintained at various locations around the Mill. The locations are determined based on the needs of employees and supervisors to have ready access to the various procedures. Only procedures that are relevant to the particular locations are located at or near those locations. All supervisors have access to the procedures. Operators have access to the SOPs that pertain to their jobs.

As mentioned in Item 27, training is given to employees on each applicable SOP. This training is documented by the signed acknowledgement of the employee that he or she attended the training session and understands the subject matter. These acknowledgment sheets are also signed by the supervisor that administered the training session. These sign off sheets on the SOPs are required by operations on all circuits. Disciplinary action will be taken against any employee who fails to gain the understanding of an SOP/circuit prior to engaging in activities that are covered by the relevant SOP. This documentation is maintained in the Mill Superintendent's office.

Also enclosed with this letter as Exhibits C and D are copies of the following SOPs, that are referred to in the 2007 License Renewal Application or the Appendices thereto:

- *End Dump Trailer Acceptance, Handling and Release*, PBL-9, Rev No R-0; and
- *Intermodal Container Acceptance, Handling and Release*, PBL-2, Rev No R-3.

These SOPs, along with the SOPs appended to the 2007 License Renewal Application, relate to or have provisions that relate to radiation safety, environmental protection, release of materials and other matters specifically directed toward maintenance of public health, safety and protection of the environment. They should properly have been included with the 2007 License Renewal Application. However, the remainder of the procedures referred to in the attached list relate to Mill operations and should not be considered part of the 2007 License Renewal Application. They are not intended to be a part of the public record, but are maintained at the Mill for inspection by the Executive Secretary (see also the discussion in Item 36 below). As a result, copies of those SOPs are not included with this letter.

29. *Define an occasional respirator user and the infrequent respirator user. Explain why respirators are not issued as needed and turned in at the completion of the day or assignment.*

Denison Response:

After the completion of the inspection conducted on May 28, 29, 2008, Denison changed its policy regarding respiratory protection. The Mill no longer recognizes the concepts of occasional user and infrequent user.

As a result, there is now no difference between an individual who wears a respirator for five minutes or one who wears a respirator for four hours. All respirators are required to be issued only when needed and must be turned in at the end of the day. A training session was performed where all employees were trained on this new policy and signed off on the procedure.

As a result of these changes to Mill procedures, when an individual needs respiratory protection, he or she must now be issued a numbered respirator by the Radiation/Safety

Department. The Radiation/Safety Staff will then perform a visual inspection of the employee to make sure that the employee is clean shaven and will also perform a smoke test on the individual. The respirator information is then documented on the Respirator Issuance Log. When the respirator is returned, the Respirator Issuance Log is updated showing the return of the device. Morning and afternoon checks are performed on the log to make sure respirators are being returned. If a device is not returned, the Radiation Technicians will seek out the device and the employee. Repeated failure to return the device will cause the employee to face disciplinary action.

30. *Provide the procedure for performing a quantitative fit test.*

Denison Response:

The following has been added to the Mill's *Respiratory Protection Program*:

“2.4 Fit Testing

Frequency – annually for every employee who is required to wear a respiratory protective device.

Quantitative fit testing will be performed using the FitTester 3000, or equivalent.

- a. Quantitative fit testing measurements will be performed as follows on the Fit Tester 3000, or equivalent:
 - 1) Input the employee's name, style of respirator and size
 - 2) Select “perform fit test” – the computer program will then walk you through a series of five tests.
 - 3) During the testing program, the computer will evaluate the employee
 - 4) If there is a failure during any test, the employee will adjust the respirator and try again.
 - 5) If after several attempts to pass a test and the employee still fails, try a different size respirator
 - 6) Once the employee passes each of the five tests, a document will be printed certifying the successful completion of the examination
 - 7) The document will then be signed by both the employee and the facilitator of the examination
 - 8) The document will then be filed with the employee's other safety documents in the Radiation Safety Department”

31. *If a respirator user is allowed to keep their respirator longer than a day, explain the mills procedure to check if respirator users are clean shaven.*

Denison Response:

Please refer to Item 29. Employees are no longer allowed to have a respirator for more than one day.

32. *Provide examples of the forms used to document the Mills Respiratory Protection Program.*

Denison Response:

See attached Exhibit G, which contains examples of the forms used to document the Mill's respiratory protection program.

33. *Explain why swipe samples are not taken on respirators to evaluate removable alpha contamination.*

Denison Response:

Section 2.3.3.1 of the Mill's *Radiation Protection Manual* currently requires that respirators are monitored using a sensitive alpha meter.

However, Denison agrees that it would be an improvement to perform removable surveys on cleaned respirators. Therefore, a removable survey on all respirators being cleaned will be performed. Changes to Book 14 – *Respiratory Protection Program*, under 2.9.1 and Book 9 – *Radiation Protection Manual*, under 2.3.3.1 will be made to mirror NRC Reg. Guide 8.30 Section 2.10.

34. *Explain how the respirator technician, who issue[s] respirators, knows if someone has met all of the prerequisites (i.e. fit test, respirator training, and medical clearance) and is authorized to wear a respirator.*

Denison Response:

It is the practice of Denison that all new hire employees must receive medical clearance prior to attending new hire orientation. If an employee is not able to obtain medical clearance, for health reasons, then Denison will make a determination if that individual is suitable for a position that does not require the use of a respirator. As part of new hire orientation, every employee who is to work in the Mill process (i.e. maintenance, operation, utility, and radiation/safety) must also be fitted prior to proceeding to the on-the-job portion of the orientation.

The fit test given during the orientation is a quantitative test and will determine the size of the device the employee needs to wear. This information is located in the Radiation/Safety Department personnel files and can be accessed by the technician to determine the proper size.

At the beginning of each year, and on initial hire, spirometry examinations are gathered on all employees who could potentially need to don a respirator. Also, at the beginning of each year, annual fit testing is performed on all employees.

So, during the year, if an employee needs a respirator, the technician knows that the employee has been cleared for use of the device. Office personnel, such as administrative assistants are not authorized to wear respiratory protection because they are not classified as individuals authorized to work in areas that could require the donning of such a device.

If there is any change in the status of any employee, that information is relayed to the Radiation/Safety Staff and that individual is blocked from being allowed to use such a device until the change in status has been addressed.

35. *Explain how the Chain of Custodies for air monitoring and environmental monitoring are being kept as part of your record keeping system.*

Denison Response:

All Chain-of-Custody (COC) forms consist of a three part color coded document. The white copy is the original form and accompanies the samples throughout the process. It is returned by the laboratory to the Mill, with all signatures, along with the final analytical report from the laboratory. The yellow copy accompanies the samples but is maintained by the contract laboratory for its records. The pink copy does not accompany the shipment. It is maintained by the Mill for its records, to indicate collection and shipment of the sample.

The COC records for a sampling event are maintained in a yearly file in the Mill department that was responsible for the sampling event. At the end of the year, the files are transferred from the responsible department to the Radiation/Safety Department for longer term storage.

36. *Provide all revisions to procedures and programs that have been added or revised since February 2007 License renewal application was submitted. Also provide all procedures and programs that were not included with the February 2007 License renewal application.*

Denison Response:

As mentioned in Item 28 above, Denison does not consider all of its standard operating procedures to be a part of the 2007 License Renewal Application. Only those standard operating procedures included with the 2007 License Renewal Application, together with the two standard operating procedures included with this letter as Exhibits C and D should be considered to form part of the 2007 License Renewal Application (the latter two standard operating procedures include provisions that relate to the release of equipment from the site and are referred to in other procedures included with the application, and should properly have been included with the application. Their omission was an oversight on the part of Denison). The remainder of the standard operating procedures, however, relate to Mill operations, are not part of the public record, and are maintained at the Mill for inspection at any time by the Executive Secretary.

It is a requirement of the Mill's *Safety and Environmental Review Panel*, No.: PBL-1 Rev. No.: R-4 procedure that the Mill's SERP may make changes to procedures presented in the license renewal application, provided certain conditions are satisfied and steps followed. Section 5.0 (3) of that procedure requires the Mill to submit an annual SERP report to the Executive Secretary within 60 days after the end of each calendar year, together with any pages of the license renewal application that have been changed by any SERP actions throughout the year. The annual SERP report for 2008 is due to be filed with the Executive Secretary on or before March 2, 2009. Denison proposes to provide the Executive Secretary with any revisions to the standard operating procedures that are included with the 2007 License Renewal Application that were made during 2008, at that time. Any such changes made in 2007 would have been included with the annual SERP report for 2007.

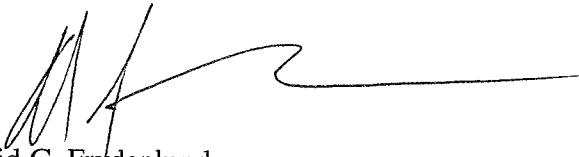
This is one reason why Denison does not consider all of the Mill's operational SOPs to be a part of the 2007 License Renewal Application. It would be impractical, and Denison believes of little benefit to the Executive Secretary, for Denison to submit every change to every procedure to the Executive Secretary every year. While it makes sense for the Executive Secretary to have annual updates to the key SOPs that have health, safety or environmental protection implications, it is not realistic for the Executive Secretary to try to have an up-to-date copy of every Mill procedure. The Mill cannot keep a full set of its SOPs up-to-date with the Executive Secretary. For the operational procedures, and all other SOPs, up-to-date copies are maintained at the Mill on a real-time basis and are available for inspection at any time by the Executive Secretary.

If you should have any questions or require additional information, please contact the undersigned.

Yours very truly,

DENISON MINES (USA) CORP.

By:



David C. Frydenlund
Vice President, Regulatory Affairs and Counsel

cc: Ron F. Hochstein
Harold R. Roberts
Steven D. Landau
David E. Turk