

February 4, 2013

CD13-0033

Rusty Lundberg
Director
Utah Division of Radiation Control
P.O. Box 144850
Salt Lake City, UT, 84114-4850

RECEIVED

FEB 05 2013

DEPARTMENT OF
ENVIRONMENTAL QUALITY

Re: Radioactive Material Licenses UT2300249 and UT2300478; Revised request to amend License and approve revised *Organization*.

Dear Mr. Lundberg:

DRC - 2013 - 001208

In a submittal dated October 24, 2012 (CD12-0275) EnergySolutions requested amendment of License UT2300249 and UT2300478, to reflect changes to our organization. Changes are the result of corporate restructuring intended to facilitate the streamlining of our operations. Enclosed please find a revised submittal to reflect the following changes:

- Delete position of Manager, Transportation and Logistics
- Change title of Lead, Shipping and Receiving to Manager, Shipping and Receiving
- Add title Manager, Container Management

Our October 24, 2012 submittal requested a number of revisions to both Radioactive Material Licenses. These revisions carry forward unchanged, with the exception of UT2300249, Condition 32.A. Condition 32.A should be revised as follows:

32.A. The Licensee's staff shall meet the qualifications as described in ~~Appendix I~~ the current approved Organization Chart (November 7, 2011, rev 23 February 3, 2013, rev 24).

A copy of the Organization Chart is provided in redline/strikeout format. Please contact me at 801-649-2151 any questions regarding this issue.

Sincerely,



Sean McCandless
Manager, Compliance and Permitting

Enclosures

CC: John Hultquist (w/enclosures)

APPENDIX I

I.1 ORGANIZATION

~~EnergySolutions LLC, (EnergySolutions) An Organization Chart is included as Figures 1 through 3, showing by responsibility the major divisions of EnergySolutions regarding management of the Clive Facility. A discussion of the entities shown on the organization chart is provided below:~~

I.1.1 ADMINISTRATION

President and Chief Executive Officer. The President and Chief Executive Officer oversees and provides direction and leadership for the company.

~~**Executive Vice President and General Counsel.** The Executive Vice President and General Counsel oversees and provides direction and leadership for the company. The Executive Vice President and General Counsel's responsibilities include: promulgating company policies that identify a commitment to safety, the importance of compliance with requirements, the employees' responsibility to identify safety concerns to management, quality assurance program requirements, and the need for adherence to company procedures.~~

President of Logistics, Processing and Disposal (LP&D) Group Global Commercial Group. The President of the LP&D Group Global Commercial Group reports to the President and Chief Executive Officer and provides oversight, direction, and leadership for all commercial facilities including the Clive disposal facility logistics, processing and disposal operations.

Senior Vice President, Regulatory Affairs. The Senior Vice President, Regulatory Affairs reports directly to the ~~Executive Vice President and General Counsel~~ Chief Executive Officer, and provides oversight and direction to the Corporate Radiation Safety Officer and Corporate Directors, of, ~~Industrial Health, Radiation Safety, Quality Assurance, and Security.~~

~~**Vice President of EHSQS Global Commercial Group.** The Vice President of EHSQS Global Commercial Group reports directly to the President Global Commercial Group and indirectly to the Senior Vice President, Regulatory Affairs and provides oversight and direction for radiation safety, quality assurance, and health and safety activities.~~

~~**Executive Vice President; US Operations Global Commercial Group.** The Executive Vice President; US Operations Global Commercial Group provides oversight, direction, and leadership for US Global Commercial operations including the Clive Facility.~~

Vice President and General Manager, of Clive Facility. The Vice President and General Manager, Clive Facility of Clive reports to the President of the LP&D Group Executive Vice President; US Operations Global Commercial Group and is responsible for the oversight of site operations including waste acceptance, sampling, management and disposal; laboratory, engineering, environmental compliance, and health physics activities; and carrying out activities efficiently and safely in accordance with design specifications, quality assurance program requirements, and all applicable regulations.

Corporate Director, Radiation Safety Officer. The Corporate Director, Radiation Safety Officer reports to the Senior Vice President, Regulatory Affairs. The Corporate Director, Radiation Safety Officer is responsible for implementation of and compliance with protocols and procedures of the Corporate Radiation Safety Program. The Corporate Director, Radiation Safety Officer ensures that adequate radiation detection instrumentation and equipment is used and that adequate measurements are made to ensure that all applicable standards for personnel exposures to radiation and radioactive materials are satisfied including: airborne radioactivity, surface contamination, internal and external exposures, and effluents.

Corporate Director, Industrial Vice President of Health and Safety. The Corporate Director, Industrial Vice President of Health and Safety reports to the Senior Vice President, Regulatory Affairs and Chief Executive Officer. The Corporate Director, Industrial Vice President of Health and Safety is responsible for implementation of and compliance with protocols and procedures for Safety and Health Management.

Corporate Director, Corporate of QA Processing/Disposal. The Director of, Corporate QA Processing/Disposal reports to the Senior Vice President, of EHSQS Global Commercial Group Regulatory Affairs. The Director of, Corporate QA Processing/Disposal is responsible for the implementation of and compliance with the Quality Assurance Program.

From this point, personnel and classes of personnel within EnergySolutions organization will be described in terms of the following departments: Quality Assurance, Compliance and Permitting, Engineering Support, Clive Management, and Radiation Safety, and Contractual Support. Individuals holding the positions listed within this appendix All site employees have the authority to terminate any activities on the site that are deemed to be unsafe. They may also suspend activities until hazard-abatement measures have been performed.

I.1.2 QUALITY ASSURANCE

Quality Assurance Manager. The Quality Assurance Manager reports directly to the Director, ~~Corporate of QA Processing/Disposal~~ regarding quality assurance activities and indirectly to the Vice President and General Manager, ~~of Clive Facility~~ for day to day operations. The Quality Assurance Manager supervises the Construction Quality Assurance Officer (CQAO), and Quality Assurance personnel. The Quality Assurance Manager is responsible for ensuring that the quality assurance requirements outlined in the Quality Assurance Manual are implemented. The Quality Assurance Manager has sufficient authority and autonomy to: implement and direct the Quality Assurance Program (QAP); identify quality problems and initiate, recommend, or provide solutions; and verify implementation of solutions independent of undue influences and responsibilities, such as costs and schedules.

Construction Quality Assurance Officer. The CQAO reports to the Quality Assurance Manager and has authorization to meet with the Director of ~~Manager, Compliance and Permitting~~ as deemed necessary. The CQAO is responsible for ensuring that the construction quality assurance requirements outlined in the Construction Quality Assurance Manuals ~~of the State issued Part (e) B Permit~~ relating to embankment construction are implemented. The CQAO works closely with the ~~Manager, Engineering and Maintenance; Lead, QC Embankment Construction Quality Control Manager; Embankment Construction Manager, and~~ Quality Assurance Manager to ensure that construction specifications are met and documented. EnergySolutions may contract with an independent engineer to perform CQAO duties.

I.1.3 COMPLIANCE AND PERMITTING

Director of ~~Manager, Compliance and Permitting~~. The Director of ~~Manager, Compliance and Permitting~~ reports to the Vice President and General Manager, ~~Clive Facility of Clive~~ for day to day activities and indirectly to the Senior Vice President, Regulatory Affairs for environmental and licensing issues, and is responsible for initiating and maintaining Clive licenses and permits. The Director of ~~Manager, Compliance and Permitting~~ is also responsible for the preparation of ~~regulatory~~ all-reports submitted in accordance with EnergySolutions licenses and permits for the Clive facility. The Director of ~~Manager, Compliance and Permitting~~ oversees the administration of the Groundwater Monitoring Program, the Environmental Monitoring Program, and the Document Control Program. The Director of ~~Manager, Compliance and Permitting~~ shall ~~oversees~~ and facilitates permit and license renewals, modifications, and amendments. The Director of ~~Manager, Compliance and Permitting~~ will set compliance objectives with the Vice President and General Manager, ~~of Clive Facility~~, and the Senior Vice President, Regulatory Affairs. Direction and support will be provided for policy development and site training to assist in ensuring compliance.

Environmental Engineer. The Environmental Engineer reports to the ~~Director of Manager, Compliance and Permitting~~ and is responsible for providing technical

guidance and support to the Site Chemistry Laboratory regarding laboratory methods and procedures. The Environmental Engineer reviews waste analytical data and approves waste for appropriate management based upon that review. The Environmental Engineer provides training and guidance associated with changing laws, regulations and requirements to site personnel. ~~The Environmental Engineer aids the Site Laboratory in developing treatment formulas prior to mixed waste disposal.~~^[2]

Staff Hydrogeologist. The Staff Hydrogeologist reports to the ~~Director of Compliance and Permitting~~ Manager, Compliance and Permitting. The Staff Hydrogeologist is responsible for ensuring that EnergySolutions complies with the applicable requirements for gathering groundwater information and reporting groundwater monitoring results.

Environmental Manager. The Environmental Manager reports to the ~~Manager, Director of Compliance and Permitting~~ Manager. The Environmental Manager is charged with ~~database management and record keeping to documenting~~ all environmental monitoring activities except groundwater at the site, and analysis (in-house or outside) of environmental monitoring samples. The Environmental Manager is responsible for the preparation of all environmental reports, except groundwater.

I.1.4. ENGINEERING SUPPORT

~~Director of Manager, Engineering and Maintenance: Clive.~~ The ~~Director of Manager, Engineering: Clive and Maintenance~~ Director of Manager, Engineering and Maintenance: Clive reports to the Vice President and General Manager, of Clive Facility. The ~~Director of Manager, Engineering and Maintenance: Clive~~ Director of Manager, Engineering and Maintenance: Clive performs or oversees the certification of engineering design drawings, project plans, construction reports, and As-Built Drawings ~~or oversees the production by consultants of engineering design drawings, project plans, construction reports, and As-Built Drawings.~~ The ~~Director of Manager, Engineering and Maintenance: Clive~~ Director of Manager, Engineering and Maintenance: Clive is responsible for overseeing construction activities and project management to ensure work is performed in accordance with schedules and specifications. The ~~Director of Manager, Engineering: Clive and Maintenance~~ Director of Manager, Engineering and Maintenance: Clive provides technical and engineering support for the operation including site layout and design reviews; and approves, with oversight provided by the Quality Assurance Department, those designs and specifications.

Site Engineer. The Site Engineer reports to the ~~Director of Manager, Engineering and Maintenance: Clive~~ Director of Manager, Engineering and Maintenance: Clive and is responsible for overseeing the production, scheduling, and coordination aspects of ~~embankment~~ construction projects, with the exception of QA (which is the responsibility of the Quality Assurance Manager). During cover and liner construction, the Site Engineer will regularly inspect the construction site. The Site Engineer will review proposed design, engineering, or construction changes and submit these changes for review and approval.

~~**Construction Quality Control Manager Lead, QC Embankment Construction.** The Construction QC Manager Lead, QC Embankment Construction reports to the Director of Manager, Engineering and Maintenance: Clive. The Construction QC Manager Lead, QC Embankment Construction is responsible for ensuring that waste placement is performed in accordance with applicable specifications and requirements. The Construction QC Manager Lead, QC Embankment Construction may have direct contact (as needed) with the Quality Assurance Manager.~~

I.1.5 CLIVE MANAGEMENT

~~**Director of LLRW Operations Manager, Waste Disposal Operations.** The Director of LLRW Operations Manager, Waste Disposal Operations reports to the Vice President and General Manager, Clive Facility of Clive and is responsible for the disposal and treatment operations of the LLRW and Mixed Waste Facilities. The Director of LLRW Operations Manager, Waste Disposal Operations works closely with Health Physics, Safety and Health, and Quality Assurance to assure that all aspects of site operations are conducted according to applicable regulations.~~

~~**Director of MW Operations.** The Director of MW Operations reports to the Vice President of Clive and is responsible for the Treatment, Container Handling and Rail operations of the LLRW and Mixed Waste Facilities. The Director of MW Operations works closely with Health Physics, Safety and Health, and Quality Assurance to assure that all aspects of site operations are conducted according to applicable regulations.~~

~~**Containerized Waste Facility (CWF) Operations Manager.** The Containerized Waste Facility Operations Manager reports to the Director of LLRW Operations and is responsible for the day to day management of the Containerized Waste Facility. The CWF Operations Manager works closely with Health Physics, Safety and Health, and Quality Assurance to assure that all aspects of containerized waste management operations are conducted according to safety, radiation, quality assurance program requirements, and in accordance with applicable regulations.~~

~~**Director of Manager, Health Physics (DHP) and Safety (RSO).** The Director of Manager, Health Physics and Safety reports to the Vice President and General Manager, of Clive Facility for day to day activities and indirectly reports to the Corporate Director, Radiation Safety Officer for ALARA and Radiation Safety Program issues. The Director of Manager, Health Physics and Safety meets the position of Radiation Safety Officer (RSO) as defined in UAC R313-12 and is responsible for implementation of and compliance with protocols and procedures of the Radioactive Material Licenses. The Director of Manager, Health Physics and Safety supervises the Health Physics Radiation Safety and Lead, Safety, Lead, and Laboratory, including support staff and works very closely with the Director of LLRW Manager, Disposal Operations and Manager, Transportation and Logistics Shipping and Receiving, and Director of Mixed Waste Operations. The~~

~~Director of~~Manager, Health Physics and Safety is responsible for on-site radiation safety including implementation of, and compliance with the ~~Corporate~~Clive Radiation Protection Program, Safety and Health Program, and associated procedures. The Manager, Health Physics and Safety is responsible for the onsite laboratory and sampling activities. ~~The Director of~~Manager, Health Physics and Safety determines whether adequate radiation instrumentation and equipment are used and whether adequate measurements are made to ensure that all applicable standards for personnel protection against exposure to radiation and radioactive materials are satisfied.

Manager, Shipping and Receiving. The Manager, Shipping and Receiving reports to the Vice President and General Manager, Clive Facility and is responsible for ensuring all shipments received and leaving the site are in compliance with all licenses, permits, and regulations.

Manager, Transportation and LogisticsContainer Management. The Manager, Transportation and Logistics-Container Management reports to the Vice President and General Manager, Clive Facility and is responsible for shipping and receiving, decontamination activities, rail logistics, and container storage.

~~Director of~~Waste Acceptance. The ~~Director of~~Waste Acceptance reports to the ~~Vice President of Clive and is responsible for shipping and receiving, the onsite laboratory, and sampling.~~ The Director of Waste Acceptance works closely with the Director of Health Physics and Directors of MW and LLRW Operations to ensure all aspects are conducted according to safety, radiation, quality assurance program requirements, and in accordance with applicable regulations.

Lead, Laboratory Manager. The Lead, Laboratory Manager reports to the ~~Director of Waste Acceptance~~Manager, Health Physics and Safety. The Lead, Laboratory Manager oversees the on-site laboratory and directs the chemical and radiological analysis of samples from shipments and from environmental sampling.

Lead, Shipping and Receiving Manager. The Lead, Shipping and Receiving Manager reports to the ~~Director of Waste Acceptance~~Manager, Transportation and Logistics and is responsible for ensuring all shipments received and leaving the site are in compliance with all licenses, permits, and regulations.

Lead, Safety and Health Manager (Clive). The Lead, Safety and Health Manager (Clive) reports to the ~~Vice President of Clive~~Manager, Health Physics and Safety for day to day activities and indirectly to the Corporate Director, Industrial Health. The Lead, Safety and Health Manager is responsible for developing and managing the Clive Safety and Health (S&H) Program and the Clive Training Program in assuring compliance with all regulatory requirements and guidance.

I.1.6 RADIATION SAFETY

~~**Lead, Health Physics/Assistant Radiation Safety Officer**~~~~Assistant Site Radiation Safety Officer(s) (ASRSO)).~~ The Assistant Site Radiation Safety Officer(s)~~Lead, Health Physics/ARSO (s)~~ reports to the DHPManager, Health Physics and Safety. The ~~Lead, Health Physics/ASRSO(s)~~ are is responsible for managing the health physics team, performing daily site inspections, and observing field operations. The ~~Lead, Health Physics/ASRSO(s)~~ can serve as acting DHPLead, Health Physics and Safety.

~~**Health Physics Radiation Safety Technician I.**~~ Health Physics Radiation Safety Technician I(s) report to the ~~Lead, Health Physics/-ASRSO(s)~~. The ~~Radiation Safety Health Physics Technician I~~ duties and responsibilities include:

- a. Perform workplace evaluation of radiological conditions and provide oversight and guidance in radiation safety for site personnel.
- b. Properly operate and issue radiological counting and detection equipment (scalars and other gross counting equipment friskers, PCMs, dose rate instrumentation, etc) and air sampling equipment.
- c. Properly obtain appropriate radiological measurements and samples to determine radiological status of areas, materials, and equipment.
- d. Promptly, properly, and accurately perform the calculations necessary to determine radiation levels and radioactive contamination levels and concentrations in areas, in soil, on material, on equipment, and in the air.
- e. Promptly, properly, and accurately interpret and document radiological measurements and calculations.
- f. Promptly and effectively interface with other department personnel and site groups to ensure radiological information is readily available for use in decision making.
- g. Properly interpret and implement radiation work permits (RWP) requirements and brief radiological workers on RWP requirements and radiological conditions in the work areas.
- h. Maintain data for a computer-based radiological work permit system to ensure that only properly authorized personnel are permitted access to restricted areas.
- i. Accurately and properly identify and establish area postings.
- j. Properly monitor and control personnel and material access to and egress from radiologically restricted areas.
- k. Monitor and coach radiological workers in good radiological work practices.
- l. Properly calibrate radiological counting and detection equipment (scalars and other gross counting equipment, friskers, PCMs, dose rate instrumentation, etc.), and air sampling equipment.

~~**Radiation Safety Health Physics Technician II(s).**~~ Radiation Safety Health Physics Technician II(s) report to the ASRSO(s). In addition, the ~~Radiation Safety Health Physics Technician II(s)~~ are charged with maintaining and enforcing conformance with Radioactive Material License and regulatory requirements as set

forth in site procedures. The ~~Radiation Safety Health Physics Technician II~~ duties and responsibilities include:

- a. Perform ~~Radiation Safety Health Physics Technician I~~ duties and responsibilities.
- b. Supervise and direct activities of ~~Radiation Safety Health Physics Technician I~~ personnel.
- c. Perform Unrestricted Release surveys on equipment, materials, and vehicles used in the restricted area.
- d. Perform intermittent and continuous health physics coverage for high risk radiological work including High Radiation Area work and/or High Contamination Area work.
- e. Prepare radiation work permits.
- f. Promptly, properly, and accurately ~~r~~Review and approve radiological survey documentation for peers and ~~Radiation Safety Health Physics Technician I(s)~~.
- g. Prepare and/or review and/or walk through site procedures in radiation safety or other areas as requested.
- h. Properly set up, use and control engineering controls (shielding, containments, HEPA vacuums and HEPA ventilation systems, dust suppression, etc.) to minimize occupational and environmental radiation exposure.
- i. Properly implement, supervise and direct personnel decontamination activities and properly document and report the activity.

~~Health Physics Technician III(s)~~. ~~Health Physics Technician III(s) report to the ASRSO(s). In addition, the Health Physics Technician III(s) are charged with maintaining and enforcing conformance with Radioactive Material License and regulatory requirements as set forth in site procedures. The Health Physics Technician III duties and responsibilities include:~~

- a. ~~Perform Health Physics Technician II duties and responsibilities.~~
- b. ~~Supervise and direct activities of Health Physics Technician I and Health Physics Technician II personnel.~~

EnergySolutions has access to qualified consultants to assist in the development and implementation of radiological health and safety plans, environmental monitoring programs, and industrial hygiene and safety programs. Consultants may be utilized to review safety, employee training, fire protection systems, and quality assurance programs in addition to continuous operations support. These consultants may be responsible to the Senior Vice President, Regulatory Affairs or the Vice President and General Manager, of Clive Facility.

I.1.7 CONTRACTUAL SUPPORT

Under the direction of EnergySolutions, contractual support may be provided for facility construction, facility operations including waste placement, engineering support, radiation safety, and technical evaluation.

I.1.8 REQUIRED PERSONNEL

One or more Radiation Safety Health Physics Technician II(s) must be on site whenever waste management operations are underway.

I.2 QUALIFICATIONS

This section outlines the minimum qualifications required for the individual positions listed below.

I.2.1 ADMINISTRATION

President and Chief Executive Officer. The President and Chief Executive Officer must have executive business experience.

~~**Executive Vice President and General Counsel.** The Executive Vice President and General Counsel must have executive business experience.~~

~~**President of Logistics, Processing and Disposal (LP&D) Group**~~**President Global Commercial Group.** The President Global Commercial Group of the LP&D Group must have three years managerial experience.

~~**Executive Vice President; US Operations Global Commercial Group.** The Executive Vice President; US Operations Global Commercial Group must have three years managerial experience.~~

Senior Vice President, Regulatory Affairs. The Senior Vice President, Regulatory Affairs must have a bachelor's degree in a science/engineering or related discipline, and five years experience related to management, engineering, quality assurance, and radioactive materials management; or similar related experience.

~~**Vice President of EHSQS Global Commercial Group.** The Vice President EHSQS Global Commercial Group must have three years managerial experience in the quality assurance or health and safety industry.~~

Vice President and General Manager, of Clive Facility. The Vice President of and General Manager, Clive Facility must have a bachelor's degree in a science or engineering discipline or an equivalent combination of training and relevant experience. Two years of relevant experience are generally considered equivalent to 1 year of academic study. The Vice President and General Manager, of Clive Facility must have at least two year's experience related to management, engineering, quality assurance, radioactive materials management; including experience in radiation safety.

Corporate Director, Radiation Safety Officer. The Corporate Director, Radiation Safety Officer must have a bachelor's degree in engineering, chemistry, physics, or a physical

science-related field or an equivalent combination of training and relevant experience in Uranium Recovery facility radiation protection. ~~Two and a minimum of ten years of relevant experience in operational health physics are generally considered equivalent to 1 year of academic study.~~ The ~~Corporate Director, Radiation Safety Officer~~ must also have two years of supervisory experience in uranium mining/milling operations, UMTRA Projects, or NORM disposal operations where handling and/or disposal of low-activity or low-level radioactive materials are involved. Experience must have provided a basis for understanding issues involved with the management of radioactive waste. The ~~Corporate Director, Radiation Safety Officer~~ must also have a thorough understanding of health physics and be able to communicate using technical knowledge.

~~**Corporate Director Vice President, Industrial Health and Safety.**~~ The ~~Corporate Director Vice President, Industrial Health and Safety~~ must have three years managerial experience in the safety and health industry.

~~**NOTE:**~~ for positions listed in I.2.1, Administration, ~~no one individual may assume the duties and responsibilities of more than two positions within the list at one time.~~

I.2.2 QUALITY ASSURANCE

~~**Director, Corporate of QA Processing/Disposal.**~~ The ~~Director, Corporate of QA Processing/Disposal~~ must have a bachelor's degree, preferably in a science or engineering field or a closely associated discipline, or equivalent technical experience; an understanding of general construction techniques; an understanding of laboratory safety, methodology, and general chemistry concepts; and an understanding of industrial health and safety concerns, testing techniques, and ALARA concepts.

Quality Assurance Manager. The Quality Assurance Manager must have a bachelor's degree, preferably in a science or engineering field or a closely associated discipline, or equivalent technical experience; an understanding of materials testing methods for soil classification and compaction, of surveying methods for establishing the location of point coordinates and elevations, and of general construction techniques; an understanding of laboratory safety, methodology, and general chemistry concepts; and an understanding of industrial health and safety concerns, testing techniques, and ALARA concepts.

Construction Quality Assurance Officer. The CQAO must have a bachelor's degree, preferably in a science or engineering field or a closely associated discipline, or equivalent technical experience; an understanding of materials testing methods for soil classification and compaction, of surveying methods for establishing the location of point coordinates and elevations, and of general construction techniques; an understanding of laboratory safety, methodology, and general chemistry concepts; and an understanding of industrial health and safety concerns, testing

techniques, and ALARA concepts. The CQAO shall be a Utah certified professional engineer.

I.2.3 COMPLIANCE/PERMITTING

~~Director of~~ **Manager, Compliance and Permitting.** The ~~Director of~~ Manager, Compliance and Permitting must have a bachelor's degree in engineering, chemistry, physics, or a physical science-related field; or equivalent experience.

———**Environmental Engineer.** The Environmental Engineer must have a bachelor's degree in engineering, chemistry, physics, or a physical science-related field; and supervisory experience in hazardous waste operations, where handling and/or disposal of hazardous materials is involved.

Staff Hydrogeologist. The Staff Hydrogeologist must have a bachelor's degree in engineering, chemistry, physics, or a physical science-related field; and 2 years of experience related to groundwater monitoring.

Environmental Manager. The Environmental Manager must have a bachelor's degree in engineering, chemistry, physics, or a physical science-related field; or equivalent Environmental Monitoring experience.

I.2.4. ENGINEERING SUPPORT

~~Director of~~ **Manager, Engineering: Clive and Maintenance.** The ~~Director of~~ Manager, Engineering: Clive and Maintenance must have a bachelor's degree in an engineering field and at least four years of experience. The ~~Director of~~ Manager, Engineering: Clive and Maintenance shall be a Utah certified professional engineer.

Site Engineer. The Site Engineer must have a bachelor's degree in an engineering field and at least four years of engineering experience. The Site Engineer should be familiar with embankment construction, soil classification and compaction testing, construction techniques, building codes, and construction surveying.

~~Construction Quality Control Manager~~ **Lead, QC Embankment Construction.** The ~~Construction Quality Control Manager~~ Lead, QC Embankment Construction must have at least two years post high school education with emphasis in science, engineering, and/or mathematics with two years experience in survey methods – OR – a minimum of five years experience in soils testing.

I.2.5 CLIVE MANAGEMENT

~~Director of~~ **LLRW Manager, Waste Disposal Operations.** The ~~Director of~~ LLRW Manager, Waste Disposal Operations must have a minimum of five years experience in landfill construction and operations.

~~**Director of MW Operations.** The Director of MW Operations must have a bachelor's degree in an engineering or science discipline OR two years post high school education with emphasis in sciences, engineering, and/or mathematics, plus a minimum of six years experience in the nuclear/hazardous waste industry.~~

~~**Containerized Waste Facility Operations Manager.** The Containerized Waste Facility Operations Manager must have a minimum of five years experience in landfill construction and operations.~~

~~**Manager, Transportation and Logistics Container Management Director of Waste Acceptance.** The Director Waste Acceptance Manager, Transportation and Logistics Container Management must have a minimum of five years experience in transportation inspection and shipping. In addition, a minimum of two years experience in the nuclear field or a bachelor's degree in chemistry or related field is required. This position requires a strong working background in basic lab chemistry and analytical methods; and a complete working knowledge of hazardous waste regulations.~~

~~**Lead Manager, Shipping and Receiving Manager.** The Manager, Shipping and Receiving Manager must have completed an approved DOT training certification course and have a minimum of two five years experience in transportation inspection and shipping.~~

~~**Director of Manager, Health Physics and Safety (RSO).** The Director of Manager, Health Physics and Safety (RSO) must have a bachelor's degree with an emphasis in health physics, the sciences, engineering, and/or mathematics, or four years of experience in the nuclear field; two years of supervisory experience in uranium mining/milling operations, UMTRA Projects, or NORM disposal operations where handling and/or disposal of low-activity or low-level radioactive materials are involved; a good understanding of radiologic analyses and laboratory quality control techniques; and the ability to learn and understand radiation safety principles and practices. Must have a thorough understanding of health physics and be able to communicate using technical knowledge. The DHP Manager, Health Physics and Safety (RSO) shall also receive 40-hours of related health and safety refresher training every two years.~~

~~**Lead, Laboratory Manager.** The Lead, Laboratory Manager must have a bachelor's degree in chemistry or a related field, or at least two years experience in the nuclear field. This position requires a strong working background in basic lab chemistry and analytical methods; and a complete working knowledge of hazardous waste regulations.~~

~~**Lead, Safety and Health Manager (Clive).** The Lead, Safety and Health Manager (Clive) must have 2 years of post-high school education and 2 years of experience in OSHA compliance and training programs; or equivalent experience.~~

I.2.6 RADIATION SAFETY

~~Lead, Health Physics/Assistant Site Radiation Safety Officers(s) ARSO(s).~~ The ~~Lead, Health Physics/ASRSO's(s)~~ must have a bachelor's degree, preferably in health physics, or equivalent training and experience which includes at least four years experience in a radioactive material field, ~~such as waste disposal or nuclear experience;~~ and be able to effectively communicate technical concepts and procedures in both oral and written form. The ~~Assistant Site Radiation Safety Officer(s)~~ ~~Lead Health Physics/ARSO(s)~~ must have the ability to supervise health physics personnel with regards to the radiation protection program.

~~Health Physics Radiation Safety Technician I(s).~~ ~~Radiation Safety Health Physics Technician I(s)~~ must have a high school diploma or equivalent, ability to pass the HP exam, valid driver's license, and be physically able to meet all requirements of the job.

~~Health Physics Radiation Safety Technician II/HH(s).~~ ~~Radiation Safety The Health Physics Technician II/HH(s)~~ must have a high school diploma or equivalent, three years working directly with radioactive material and two years direct ~~H~~health ~~P~~physics experience equivalent to the ~~Radiation Safety HP~~ Technician I level, or an equivalent combination of education and experience, ability to pass the ~~Radiation Safety Technician HP-II~~ exam, valid driver's license, and be physically able to meet all requirements of the job.

I.2.8 CONTRACTUAL SUPPORT

All individuals providing contractual support for radiation safety, quality assurance, facility operations including waste placement must meet the minimum qualifications and receive the necessary training for the positions held.

Figure 1: Administration

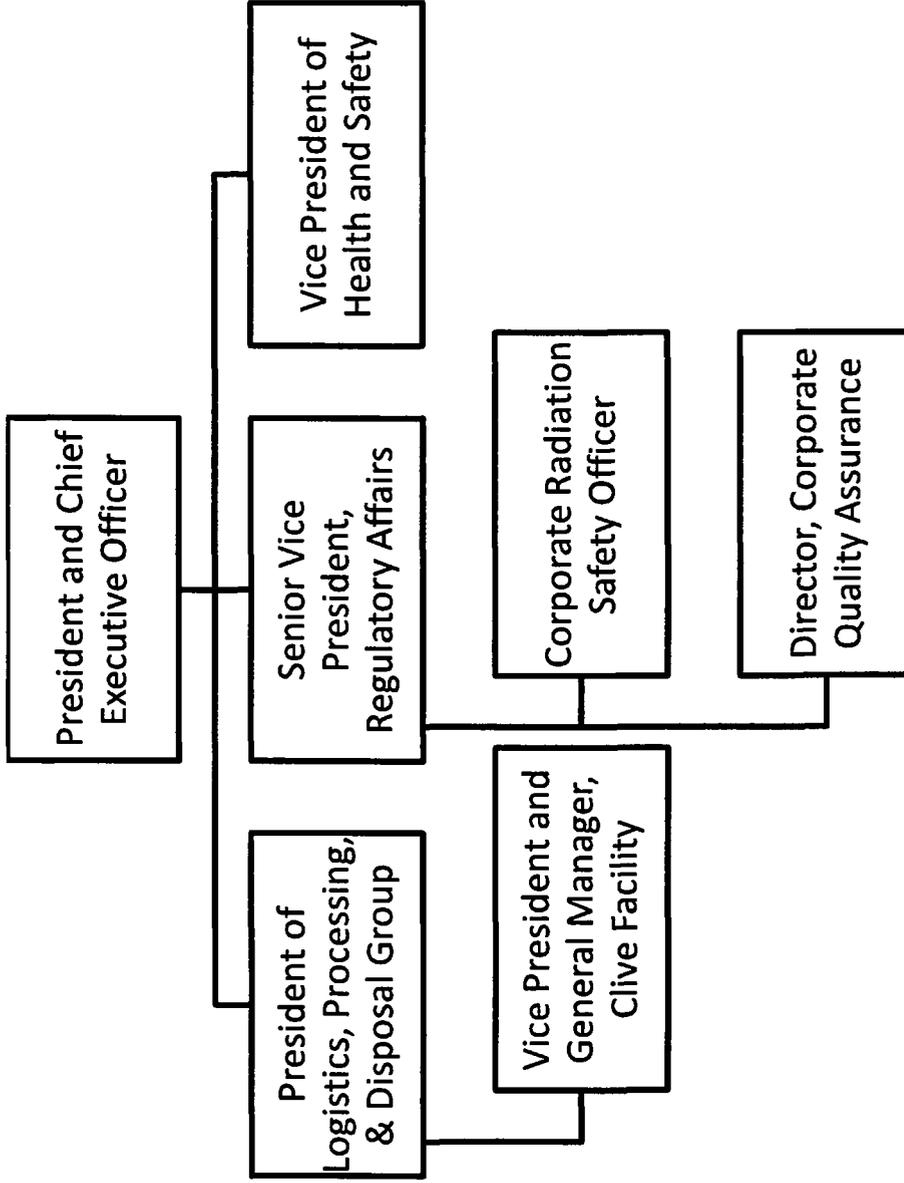


Figure 2: Clive Management

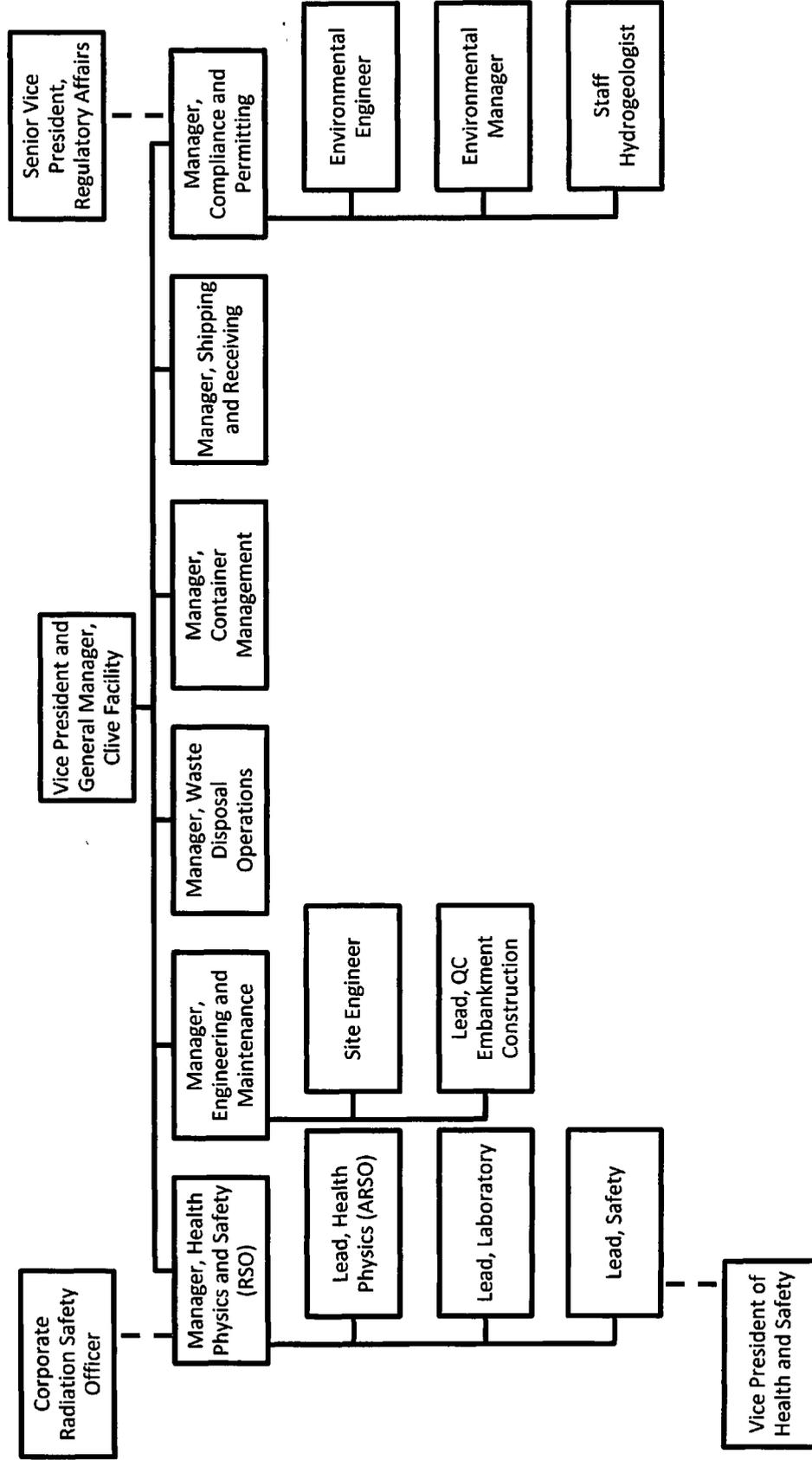


Figure 3: Quality Assurance

