

ENERGYSOLUTIONS

October 24, 2012

CD12-0275

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

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DEPARTMENT OF
ENVIRONMENTAL QUALITY

Subject Radioactive Material Licenses UT2300249 and UT2300478, Request to
 amend License and approve revised Appendix I, *Organization*

Dear Mr Lundberg

EnergySolutions LLC, hereby requests amendment of License UT2300249 and UT2300478, to reflect changes to our organization as shown in the proposed revision of Appendix I dated, October 24, 2012. Changes are the result of corporate restructuring intended to facilitate the streamlining of our operations. Changes include the following, with additional changes shown in text of Appendix I

- Change title of Chief Executive Officer to President and Chief Executive Officer
- Delete position of Executive Vice President and General Counsel
- Change title of President, Global Commercial Group to President of Logistics, Processing, and Disposal (LP&D) Group
- Delete position of Vice President of EHSQS Global Commercial Group
- Delete position of Executive Vice President US Operations Global Commercial Group
- Change title of Vice President of Clive to Vice President and General Manager, Clive Facility
- Change title of Corporate Director, Radiation Safety to Corporate Radiation Safety Officer
- Change title of Corporate Director, Industrial Health to Vice President of Health and Safety
- Change title of Corporate Director of Quality Assurance to Director, Corporate QA
- Change title of Director of Compliance and Permitting to Manager, Compliance and Permitting
- Change title of Director of Engineering to Manager, Engineering and Maintenance
- Change title of Construction Quality Control Manager to Lead, QC Embankment Construction
- Change title of Director of LLRW Operations to Manager, Waste Disposal Operations
- Delete position of Director of Mixed Waste Operations
- Delete position of Containerized Waste Facility (CWF) Operations Manager

- Change title of Director of Health Physics to the Manager, Health Physics and Safety (RSO)
- Add position of Manager, Transportation and Logistics
- Delete position of Director of Waste Acceptance

It is requested that the following License Conditions of UT2300249 be amended as follows

21

The Licensee's ~~Director of Health Physics~~ Radiation Safety Officer (RSO) shall review and approve written procedures as stated in License Condition 20 and subsequent changes to the procedures related to waste disposal operations

31

Radiation Safety operations for bulk, containerized and mixed waste, portable gauging device(s), radioactive source(s), and dosimeter calibrator(s)/irradiator(s) shall be conducted by or under the supervision of Rick Chalk, RSO ~~Director of Health Physics~~

32

A The Licensee's staff shall meet the qualifications as described in Appendix I (~~November 7, 2011, rev 23~~ October XX, 2012, rev 24)

B Licensed material in License Conditions 6 C and 6 D shall be used by, or under the supervision and in the physical presence of, the RSO ~~Director of Health Physics~~ or individuals who have been trained in the Licensee's standard operating and emergency procedures and have satisfactorily completed at least one of the following

- 1 The device manufacturer's training course for safe use and handling of portable gauging devices containing licensed material, or
- 11 A portable gauge training program conducted in accordance with the provisions of a specific license issued by the ~~Executive Secretary~~ Director, an Agreement State or the U S Nuclear Regulatory Commission

C Licensed material in License Conditions 6 E through 6 P shall be used by, or under the supervision of, the ~~Director of Health Physics~~ RSO, or individuals designated in writing by the RSO ~~Director of Health Physics~~

D The Licensee shall maintain the organizational independence of the programs that monitor and enforce employee safety, environmental protection, and public safety from programs responsible for production and profitability and other influences or priorities that might compromise quality and radiation safety

E The Licensee shall establish a method for any employee or contractor to anonymously submit questions, concerns, ideas, or other comments regarding

employee safety, environmental protection, and public safety to the Corporate Radiation Safety Officer (CRSO) ~~Director of Health Physics~~. The method shall include documentation of all comments submitted, the Applicant's response to each comment, and a method for communicating the Licensee's response to employees and contractors

39 C

Waste delivered in a shielded transportation cask shall remain in the cask until the waste is approved for disposal and the disposal location is prepared for the shipment. Waste received for disposal in the Containerized Waste Facility shall not be handled, stored or transferred within the contaminated portion of the Restricted Area without the approval of the RSO ~~Director of Health Physics~~

81

The RSO ~~Director of Health Physics~~ or other qualified person designated by the Director of Health Physics shall be present for and shall observe the receipt, processing, handling, and disposal of each waste package with contact radiation levels in excess of 200 R/hr

84 A v (b)

The analysis of leak test samples shall only be performed by individuals who meet the qualifications of a ~~Health Physics~~ Radiation Safety Technician I or II, as defined by this license. The analysis of leak test samples shall be performed in accordance with the Licensee's renewal application (dated March 1, 2001), and the Licensee's Memo (dated March 11, 2002). Alternatively, tests for leakage and/or contamination, including sample collection and analysis, may be performed by other persons specifically licensed by the ~~Executive Secretary~~ Director, the U S Nuclear Regulatory Commission, or an Agreement State to perform such services

86 B ii

used by individuals who meet the qualifications of a ~~Health Physics~~ Radiation Safety Technician I or II, as defined by this license

It is requested that the following License Conditions of UT2300478 be amended as follows

9 8

The licensee shall have all written SOPs reviewed and approved by the ~~Director of Health Physics (DHP)~~ Radiation Safety Officer (RSO), or designate, qualified by way of specialized radiation protection training equivalent to that required for the ~~DHP~~ RSO as defined in License Condition 9 10, before being implemented and whenever a change in a procedure is proposed. All existing facility SOPs related to operational and non-operational activities shall be reviewed and documented by the ~~DHP~~ RSO on an annual basis

9 10

The Licensee's staff shall meet the qualifications as described in the currently approved Appendix I, *Organization*, of the Radioactive Material License UT 2300249. In addition to the responsibilities and qualifications specified in the licensee's application, the ~~DHP~~ RSO or their designate(s) shall be qualified as specified in Sections 1.2 and 2.4 of the NRC Regulatory Guide 8.31, "Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Mills will be As Low As Reasonably Achievable," as amended. In addition, the ~~DHP~~ RSO shall also receive 40-hours of related health and safety refresher training every two years.

[Applicable UDRC Amendments 2, 5, and 6]

For the purposes of this licensee condition, reference to "uranium mill" or "milling" in the NRC Regulatory Guide 8.31, as amended, shall mean the licensee's facility and authorized activities.

9 13

The licensee shall require a radiation work permit (RWP) for work where the potential for significant exposure to radioactive materials exists and for which no SOP exists. Each RWP shall contain the information specified in Regulatory Guide 8.31, as amended.

The ~~DHP~~ RSO, or designate, qualified by way of special radiation protection training equivalent to that required for the ~~DHP~~ RSO as defined in License Condition 9.10, shall indicate by signature, the review and approval of each RWP, prior to the initiation of the work.

9 15

The licensee shall have qualified individual(s), designated by the ~~DHP~~ RSO and ~~Risk Manager Lead, Safety~~, perform quantitative respirator fit tests on all employees required to wear respirators prior to the initial use of a respirator and annually thereafter. During the annual fit test, the qualified individual(s) performing the test shall ensure that the employee is correctly performing negative pressure fit checks and shall instruct the employee that the fit test is to be performed each time a respirator is donned and prior to entering an area where respirators are required. The licensee shall follow the guidance provided in the NRC Regulatory Guide 8.15 "Acceptable Programs for Respiratory Protection", as amended.

11 3

The licensee shall require that the ~~DHP~~ RSO and the Site Engineer perform and document joint inspections of all work areas at least monthly. The licensee shall correct any deficiency noted during the inspection within 7 working days. The results of the inspections and any necessary corrective actions should be reported in the annual report.

12 3

The licensee shall perform an annual ALARA audit of the radiation safety program which shall be led by the ~~DHP~~ RSO or designate, qualified by way of specialized radiation protection training equivalent to that required for the ~~DHP~~ RSO as defined in License Condition 9 10, in accordance with Section 2 3 3 of NRC Regulatory Guide 8 31, as amended. A report of this audit shall be submitted to corporate headquarters and the Executive Secretary, by March 31st for the previous year. The report shall include detailed summaries of the analytical results of the radiological surveys. In order to evaluate the ALARA objective, the licensee shall, at a minimum, review the following records.

A copy of Appendix I is provided in redline/strikeout format. An electronic copy will be provided via electronic mail. A check in the amount of \$200 00 (No 38216) is enclosed for administrative costs associated with this request. If you have any questions regarding this submittal, please contact me at 801-649-2000.

Sincerely,



Sean McCandless

for Director of 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 11-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.^[12]

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 ~~Director of Compliance and Permitting~~ Manager, Director of Compliance and Permitting. The Environmental Manager is charged with ~~database management and recordkeeping 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 and Maintenance~~ reports to the Vice President and General Manager, of Clive Facility. ~~The 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~~ 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 and Maintenance~~ 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~~ 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, 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, Transportation and Logistics. The Manager, Transportation and Logistics 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 ~~DHP~~Manager, 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 DHP/Lead, 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

1.2.4. 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

1.2.5 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.**~~**Director of Waste Acceptance.** The Director Waste Acceptance Manager, Transportation and Logistics 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, Shipping and Receiving Manager.**~~ The Lead, Shipping and Receiving Manager must have completed an approved DOT training certification course and have a minimum of two 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.

1.2.6 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/III(s)~~ Radiation Safety Health Physics Technician II/III(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

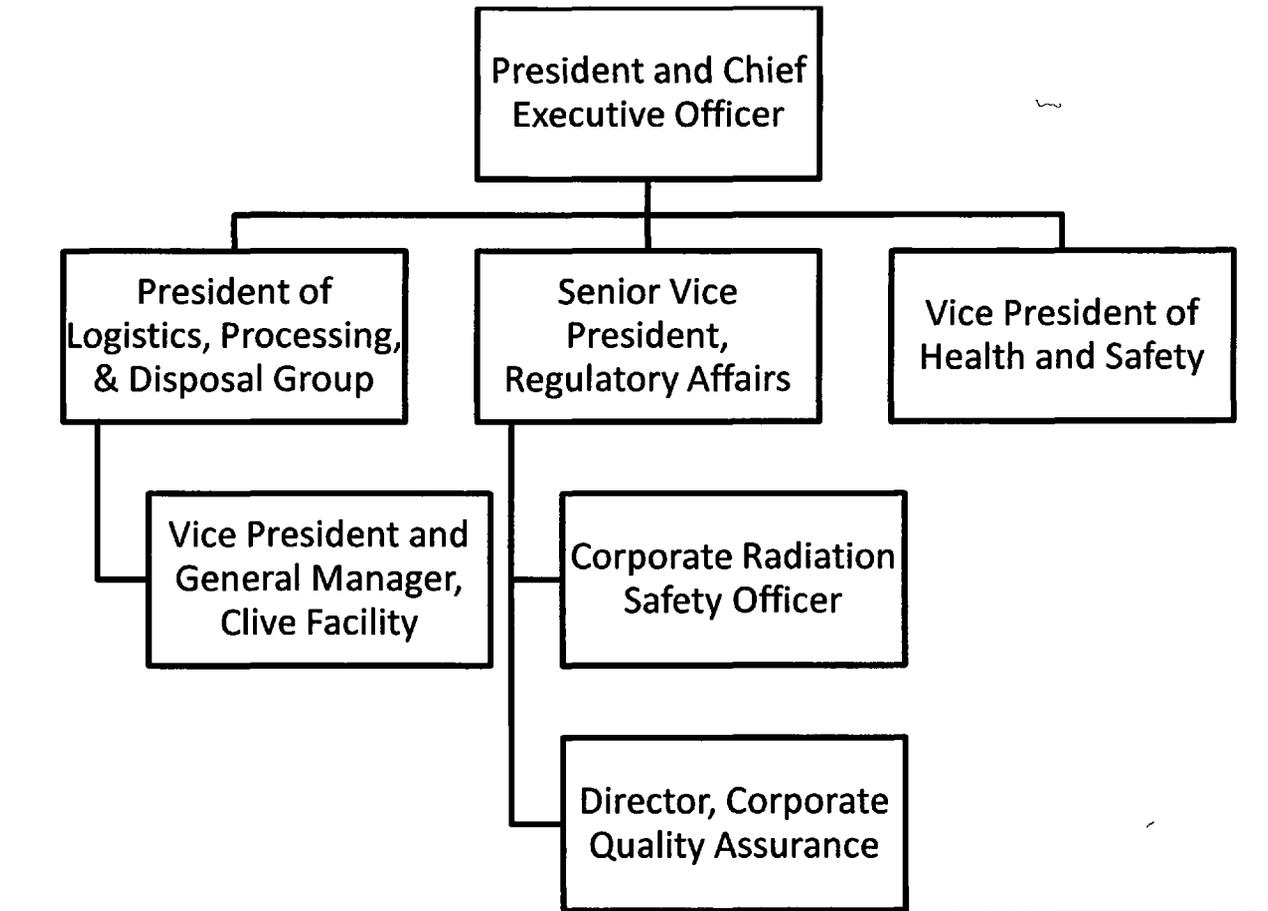


Figure 2 Clive Management

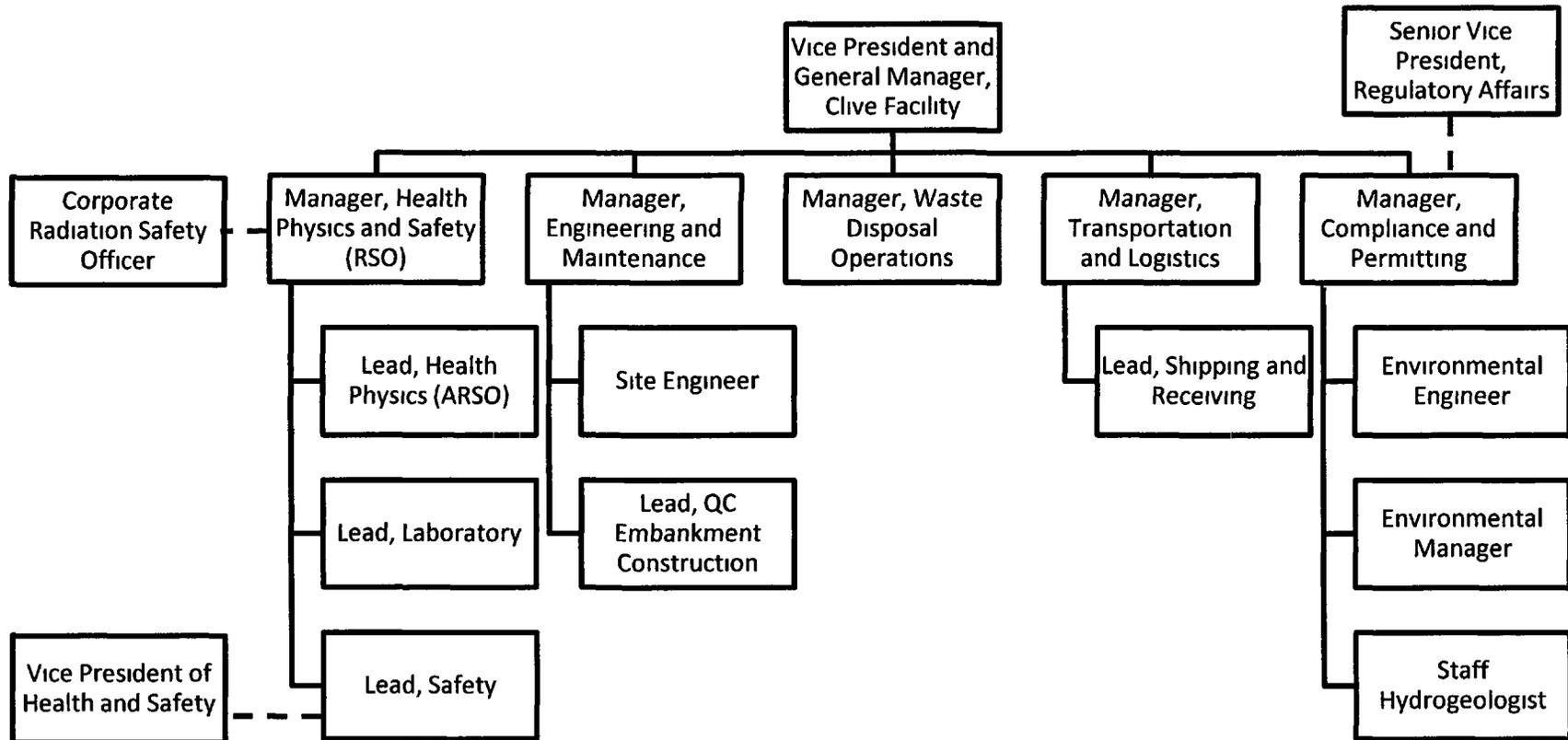


Figure 3 Quality Assurance

