GROUND WATER QUALITY DISCHARGE PERMIT UGW450005

STATEMENT OF BASIS

Low-Level and 11e.(2) Radioactive Waste Disposal Facility

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Purpose

This Statement of Basis describes proposed changes to Ground Water Quality Discharge Permit No. UGW450005 (hereafter Permit) for the Energy*Solutions'* (hereafter Permittee) commercial Low-Level and 11e.(2) radioactive and mixed waste disposal facility located near Clive, Tooele County, Utah, in Township 1 South, Range 11 West, Section 32, Salt Lake Baseline and Meridian (SLBM). The Permit is issued pursuant to Utah Water Quality Rule, Utah Code Annotated (UCA) R317-6, which requires any persons who construct, install, or operate any new facility or modify an existing or new facility, not permitted by rule under UCA R317-6-6.2, which discharges water or would probably result in a discharge of water, to obtain a Ground Water Quality Discharge Permit. The operation of the Permittee's waste disposal facility includes a process of ongoing assessments to maximize and assure the satisfactory performance of the facility. UCA R317-6 provides for the Permit to be reopened for modification on an as-needed basis. The Utah Division of Radiation Control (hereafter DRC) oversees the Permittee's Ground Water Quality Discharge Permit to ensure compliance with all applicable regulatory requirements. The Permittee has submitted a request to modify the Best Available Technology (BAT) Performance Monitoring Plan (Appendix J) and, BAT Contingency Plan (Appendix K) of the Permit. UAC R317-6 requires that any discharge of water or wastewater be controlled so that it will not migrate into or adversely affect the quality of any water of the State of Utah, this is partly achieved at the Clive site through the use of facility specific permit conditions requiring the use of BAT in the design, construction, and operation of all facilities, and that all facilities are operated according to "Best Management Practices." To maintain facility performance and respond to Permittee requests, changes related to the Permittee's requests to the DRC and ongoing evaluations of the facility are proposed.

Appendices J and K Modifications

Proposed changes to the Permit are related to Permittee's requests, letters dated November 8, 2012 and March 8, 2013 (see Attachment A), to the Director of the DRC (hereafter Director) for approval of modifications to Appendix J and Appendix K of the Permit. Appendix J describes

the BAT inspection requirements of the Clive facility, and Appendix K deals with BAT failures by providing direction regarding contingency and corrective actions required for maintaining or regaining compliance. Implementation of BAT for each facility at the Clive site is required by the Permit and shows environmental compliance in a way that protects public health and safety and the environment. The DRC has reviewed all the submittals pertaining to this request, has pursued unresolved matters with the Permittee, and preformed an assessment of BAT requirements. Proposed changes have the potential of affecting ground water quantity and quality in the vicinity of the Clive site and thus require changes to the Permit. Details of a DRC's review are found in a technical memorandum (see Attachment B). This technical memorandum has the findings of a review of the Permit modification request, "March 8, 2013 EnergySolutions Revised Request for Modification to Appendices J and K," by DRC staff, dated June 19, 2013, and address the effectiveness of each operational component of a facility as it relates to the BAT modifications. A summary of this evaluation and the DRC's conclusions follow below.

The Permittee has developed a BAT program that analyzes the potential impacts of each facility, is supported by a solid understanding of industrial processes; represents a systematic and clear way to ensure groundwater protection; and provides a mechanism to manage contamination with a potential of being discharged directly or indirectly into groundwater. This provides a definable strategy that identifies system failures during inspections and ensures the Permittee's efforts are properly focused at each facility for environmental compliance during facility operations. The Permittee utilizes operational strategies and inspection procedures to ensure the effectiveness of waste handling and decontamination facilities.

In the November 8, 2012 letter (see Attachment A), the Permittee requested approval of proposed modification to Appendix J and Appendix K. Requested changes and justifications are summarized as:

- remove Table 1 of Appendix J, because the Table is redundant with text found in Appendix J and the Permit, providing an opportunity for discrepancies and inconsistencies;

- revise inspection frequency to weekly, or within a business day after precipitation events of greater than 0.1 inches per hours, based on the following factors: long-term monitoring at the Clive site has shown that a majority of BAT failures are associated with storm events, waste volumes have dramatically declined, BAT inspection at other DRC administered facilities have weekly BAT inspections, and proposed inspection frequencies provide that an equivalent level of protection will be maintained;

- updated organization titles and responsibilities to reflect the revised facility organization submitted to DRC on October 24, 2012;

- remove the requirement that a professional engineer perform the annual east side drainage system pressure test, because testing is performed and documented in accordance with ASTM methodology and verified by the DRC;

- reduce Quality Assurance/Quality Control requirements for inspections; because quality assurance reviews should not be regulatory;

- remove a duplicative requirement to construct to approved design, because it is stated elsewhere in the Permit; and

- minor edits throughout to improve clarity and reduce redundancy.

Inspection forms, Attachments 1 through 4 of Appendix J, were revised and Attachments 5 and 6 were removed. Attachment 7 for the DU storage building was incorporated into Attachment 1; therefore, Attachment 7 was removed.

The DRC responded in a letter dated November 26, 2012 (see Attachment C), that the Permittee was proposing major changes to the BAT criteria and that:

- the DRC finds Table 1 useful as a summary of each BAT inspection, and that Table 1 has been in Appendix J for years without causing any consistency problems;

- changing all of the BAT daily inspections to weekly was not appropriate; however, some inspections could be changed to weekly, and while true that a number of BAT failures are associated with large precipitation events, there are BAT failures that are not caused by, or associated with precipitation events;

- organization titles and responsibilities update is fine;

- the annual pressure test of the East Side Drainage System is important, and should be conducted by a professional engineer; however, the DRC had no problem with the Permittee using an in-house professional engineer to conduct the annual test;

- it is inappropriate to reduce Quality Assurance/Quality Control requirements, because errors still are still found on inspection forms, and Quality Assurance/Quality Control is the appropriate way to ensure compliance;

- failure to Construct as pre-Approved needed to stay in Appendix K, because there is not an equivalent statement anywhere else; and

- DRC comments makes many of the minor edits and changes to the inspection forms (Attachments 1 through 7 of Appendix J) not appropriate.

On March 8, 2013 the Permittee resubmitted the proposed modification request (see Attachment A) for procedures found in Appendices J and K of the Permit (EnergySolutions, March 8, 2013). The Permittee's new requested changes are:

- modify Table 1, incorporate the DRC comment to keep Table 1; revise some definitions; modify some BAT inspection frequencies, and requirements; and provide a mechanism for suspending BAT inspections. To reduce duplication within Appendix J, while

retaining the useful features of Table 1, text was retained in Appendix J when it provides a description of the facility design or extended point of compliance and information not suitable for summary in Table 1. The Permittee proposed revised Table 1 states inspection frequency and point of compliance performance criteria, and specifies where each item is documented;

- revise inspection frequencies and associated inspection forms, including a stormwater triggered inspection. The Permittee proposal includes specified daily, storm related, weekly, monthly, and annual inspections;

- adds clarification that an in-house professional engineer can be used to perform the annual pressure test of the East Side Drainage System;

- revise quality assurance requirements to monthly to reflect weekly facility inspections;

- characterize a facility's operational status to provide the mechanism to take facilities off-line:

- add new definitions for container storage compliance, and weekly inspections, re-title the definition for discrepancy relating to pad integrity to surface integrity discrepancy;

- combine the evaporation ponds into a single section to reduce redundancies;

- delete LARW, Class A, and Class A North Collection Lysimeters section, because this is more adequately covered in Appendix C ;

- delete section requiring spare parts be on site; because Appendix K provides timelines for repairs;

- in Appendices J and K, update organization titles and responsibilities to reflect the current situation; and

- incorporate minor edits throughout Appendices J and K to improve clarity and reduce duplication.

In a May 9, 2013 email (see Attachment D), the Permittee provided information regarding inconsistency based on their review of another facility's permit and determined that the decontamination pads at the other facility (a DRC regulated facility) are inspected weekly and argued that daily inspections at facilities, such as the Rotary Dump, IUF and Box Wash facilities were inconsistent with this, and that BAT performance standards are maintained with weekly inspections. The Permittee also pointed out that BAT performance standards are supported in the body of the Permit. On May 21, 2013 the Permittee submitted a follow-up letter (see Attachment E) to the modification of Appendices J and K request in response to a meeting with the Permittee and DRC staff held on May 8, 2013. The letter restated the request of March 8, 2013 with some additional requests from the May 8, 2013 meeting.

The DRC determined in its June 19, 2013 memorandum (Attachment B) that because BAT is included in the design; materials that are impervious, and amenable to cleaning are used in construction; and preventive maintenance occurs at each facility, the proposed BAT requirements provide assurance during operation that a facility can operate as designed; and the Permittee is conducting some BAT inspections more often than necessary to ensure the protection of groundwater, given the design and construction of the various facilities. The proposed Permit modification will correct this.

Conclusion

The DRC staff's evaluation concludes the proposed changes to the BAT inspection frequencies maintains groundwater protection, with preventive maintenance, free drainage where needed, floors and surfaces being maintained, and BAT still supported in the body of the Permit. The June 19, 2013 memorandum explains that the proposed changes to Appendices J and K provide regulatory compliance with the Permit and ensures all applicable performance objectives and regulatory requirements necessary to grant approval for the Appendices J and K modifications have been satisfied. Ongoing oversight and compliance monitoring and a review of the semi-annual BAT monitoring report will serve to verify compliance with applicable requirements. The DRC has concluded that overall, the modification of the BAT requirements is protective of the environment and public health and safety.

Minor Permit Changes

New Mixed Waste Surface Impoundment

The Permittee's facility receives Class A low-level radioactive waste (LLRW), 11e.(2) byproduct waste, and mixed waste. The first two types of waste contain only a low-level radioactive component. The third type of waste contains both low-level radioactivity and a hazardous waste component. The mixed wastes operations falls within overlapping regulatory jurisdictions and is regulated by both the Utah Division of Solid and Hazardous Waste (DSHW), under a Resource Conservation and Recovery Act (RCRA) Part B Permit; and the DRC, under a LLRW License and the Permit. The DSHW regulates the hazardous waste portion and the DRC regulates the radioactive portion of the waste. The DSHW reviews modification requests and makes the final determination as to whether or not the design specifications of the Mixed Waste disposal embankment is in accordance with regulatory, and the State-issued RCRA Part B Permit requirements. On January 23, 2012 the Permittee requested a Class III modification to its RCRA Part B permit, to add an additional capacity of 850,000 gallons to a new on-site surface impoundment, to receive facility-generated aqueous liquids, including leachate from the Mixed Waste disposal embankment and decontamination liquids, for evaporation. This modification affected Modules I and IV as well as Attachments II-1-6, II-1-15, II-3, II-11, and IV-1 of the RCRA Part B Permit.

The Mixed Waste Surface Impoundment is located in the east central area of Section 32 (Township 1 South, Range 11 West, SLBM) north of the mixed waste operations building and east of the mixed waste disposal embankment. The mixed waste surface impoundment increases

the overall leachate and contact water management capacity of the mixed waste facility. The mixed waste surface impoundment is similar in many substantial respects to the mixed waste evaporation pond and the four other approved evaporation pond designs already constructed, permitted, and in service at the Clive site. The DSHW has reviewed all submittals pertaining to this request. The modification request went through two public comment periods, the first from January 26, 2012 through March 26, 2012, and the second from April 24, 2012 through June 8, 2012; public information/comment meetings were held on February 15, and May 23, 2012 at 7 P.M. in the South Auditorium of the Tooele County Courthouse. After reviewing submitted design and construction documents and comments received during the two comment periods, the DSHW granted authorization to construct the mixed waste surface impoundment in compliance with applicable regulatory requirements.

The mixed waste surface impoundment construction activities were performed in accordance with project construction plans, the engineering design report, and Revision 12 of the Attachment II-9 Construction QA/QC manual. The mixed waste surface impoundment characteristics are defined in Engineering Drawings in Attachment II-11 and Facility Drawings of the State-issued RCRA Part B Permit. Operating requirements are located in Attachment II-1-6, Leachate, Evaporation, and Decontamination Waste Management Plan and inspection requirements are located in Attachment II-3, Site Inspection Plan, of the State-issued RCRA Part B-Permit. DSHW determined all materials, elements, and work required to construct the mixed waste surface impoundment conforms to the Construction QA/QC Plan. Protection of ground water is accomplished through application of BAT Performance Monitoring. The DSHW determined the mixed waste surface impoundments will have no adverse impact on the protection of public health or the environment and approved the surface impoundment for use on March 29, 2013. The DRC will note the location of engineering drawings for the mixed waste surface impoundment in Table 5 and the wastewater management requirements in Part I.E.14.e.

Class A West Containerized Waste Facility (CWF) Modification

The Permittee requested a revised CWF footprint in the Class A West embankment in a letter dated February 22, 2013 (see Attachment F). The CWF is a distinct area within the footprint of the Class A West embankment that is used for the disposal of certain waste packages. These waste packages must meet requirements in UAC R313-15-1009, meet Department of Transportation requirements for Type A package, and have a void space no greater than 15%. The proposed CWF foot print would encompass the current 2005 and 2010 CWF areas, and expand to the north of the 2010 CWF area (all within the footprint of the Class A West embankment). The DRC has reviewed the Permittee submittals and finds the engineering design proposed consistent with the previously approved design basis for CWF disposal and to conform to stormwater management requirements. The new CWF will be located under the top slope of the Class A West embankment and meets CQA/QC Manual specifications. The expanded CWF will be constructed in accordance with the current approved CQA/QC Manual and submitted engineering drawings. Facility construction, waste placement, and water management will continue in accordance with current requirements. The operation of the CWF will be a

continuation of the disposal operations currently taking place. The revised CWF footprint was approved in a July 3, 2013 letter (see Attachment G).

Permit Changes

The Director considers major changes to the Permits to be those that have a potential to affect public health and/or the protection of the environment, or to represent a reduction in monitoring requirements (see UAC R313-17). In accordance with UAC R313-17, such major Permit changes are subject to a public comment period. Other changes that are considered minor in nature by the Director include, but are not limited to, those that: (1) have no significant impact on the protection of public health or the environment, or (2) are more stringent or protective than those already existing in the Permit (UAC R313-17). Both major and minor changes, described below, are proposed in this Permit modification. Proposed changes are shown in the Draft Permit in Attachment H, Appendix J in Attachment I, and Appendix K in Attachment J to this SOB, in underlined/strikeout text. In regards to underline/strikeout text, text underlined in the body of the document is added to the document, and text crossed out (strikeout) is to be removed from the document. Additionally, the Permittee will need to update Appendix J inspection forms (used by the Permittee's staff during inspections) to conform to the proposed BAT requirements found in Appendix J, due to this Permit modification. The changes to Appendices J and K along with those considered below will be integrated into the next Permit modification, which will supersede the previous Permit modification, dated November 26, 2012.

This section describes conditions that are proposed to be changed in the Permit. Proposed changes are shown in the Permit in Attachment H in underlined/strikeout text.

Permit Changes Associated With Addition of the Appendices J and K Modifications

LLRW Waste Management Performance Requirements, Part I.E.10.a.9 – waste materials sent to the Permittee's Clive site for disposal must be properly labeled, and if in containers, the containers must be suitable for transporting and meet DOT requirements. When the Permittee receives waste in disposal containers, the conditions of containers are inspected at the time of waste acceptance, any problems are corrected at that time. Containers in storage are now inspected daily, the proposed modification will allow containers in storage be inspected weekly or monthly depending on the facility. This condition is changed to reflect that containers in storage are inspected according to Appendix J.

Wastewater Management Requirements, Part I.E.14 - The Permittee is required to operate and maintain all wastewater storage, treatment, and disposal facilities in accordance with Best Available Technology (BAT). One of the requirements is to determine the maximum allowable daily leakage volumes by measuring the volume of all fluids pumped from the respective leak detection systems of the 1995, 1997, 2000, Mixed Waste, and Northwest Corner evaporation ponds. The measurement of the volume of fluids pumped from the respective leak detection systems is now measured daily and will continue to be measured daily, but daily is removed

from this condition and replaced with "in accordance with Appendix J of this Permit" to be consistent with other conditions.

Railcar Rollover Facility BAT Performance and Best Management Practice Standards, Part I.E.17 – The Permittee conducts BAT inspections of the railcar rollover facility to ensure the physical integrity of the asphalt ramps and concrete bays. Inspections are documented to ensure compliance with the stormwater management requirements in Part I.E.7 of this Permit. The Railcar Rollover is now inspected daily and annually, the proposed modification to the Railcar Rollover requirements will allow daily, daily when stormwater present, weekly, and annual inspections. Daily is removed from this condition and replaced with "in accordance with Appendix J of this Permit" to be consistent with other conditions.

BAT Compliance Monitoring Points, Part I.F.2.m - The Permittee inspects, samples, analyzes, or otherwise monitors various points of compliance in order to confirm compliance with this Permit. One of these points is the East Side Drainage Project, which requires monitoring to determine the presence or absence of fluids in the leak detection annulus within the secondary piping of all dual-wall wastewater transfer systems. All dual-walled pressurized pipes connected to the East Side Drainage Project, which do not gravity drain to a leak detection port, including both primary and secondary piping, shall be pressure tested annually. This requires a qualified independent Professional Engineer registered in the State of Utah to perform the pressure tests. The proposed modification will allow a qualified Professional Engineer registered in the State of Utah to do the testing. The condition is modified to indicate this.

Containerized Waste Storage Areas: Leakage/Spill Monitoring and BAT Status, Part I.F.12 - The Permittee conducts inspections of the containerized waste storage areas in order to remediate any container leakage or spillage. These inspections are conducted in accordance with Appendix J of this Permit. The containerized waste storage areas now has a daily inspection, the proposed Permit modification will allow daily, daily when stormwater present, and weekly inspections; so daily is removed from this condition.

Evaporation Ponds Monitoring, Part I.F.13.a – the evaporation ponds are monitored in accordance with Appendix J to determine compliance with BAT requirements. The evaporation ponds are now inspected daily to determine compliance with BAT requirements. The proposed Permit modification will still require daily inspections to determine compliance; however, to be consistent, "in accordance with Appendix J of this Permit" is added to this condition and daily removed.

Intermodal Unloading Facility Monitoring, Part I.F.16 -

The Permittee conducts inspections of the unloading pad drainage system, sump, and stormwater drainage pipeline system at the Intermodal Unloading Facility. The Intermodal Unloading Facility now has daily inspections, and an annual inspection. The proposed Permit modification will allow the Intermodal Unloading Facility to have daily, daily when stormwater present, and weekly inspections, and the annual inspection, so daily is removed from this condition.

Box-Washing Facility Monitoring, Part I.F.17 – The Permittee conducts inspections of the Box-Washing Facility for free drainage of floor sumps, a wastewater drainage pipeline, and concrete holding tanks. The Box-Washing Facility is now inspected daily and annually; the proposed Permit modification will allow daily, and weekly inspections, and the annual inspection. Daily is removed from this condition, and "in accordance with currently approved Appendix J of this Permit" is added.

Rail Car Wash Facility Monitoring Part I.F.18 - The Permittee conducts inspections of the Rail Car Wash Facility for free drainage at floor sumps and concrete trench that discharges to the collection tank(s) located within the adjacent equipment/mechanics building. The Rail Car Wash Facility is now inspected daily. The proposed Permit modification will allow the Rail Car Wash Facility to have daily, weekly, and monthly inspections. So, daily is removed from this condition, and in accordance with currently approved Appendix J of this Permit is added.

Railcar Rollover Facility Monitoring Part I.F.19 - The Permittee conducts inspections of the Railcar Rollover Facility for free drainage from the berm to the trough through the settling basin and into the sump, and prevention of ponded water. The Railcar Rollover Facility now has daily inspections and an annual inspection. The proposed Permit modification will allow the Railcar Rollover Facility to have daily, daily when stormwater present, and weekly inspections, and the annual inspection. These inspections will longer be required daily, so daily is removed from this condition, and in accordance with currently approved Appendix J of this Permit is added.

Shredder Facility, Part I.F.25 - The Permittee conducts inspections of the Shredder Facility for free drainage from the shredder facility to the seven catchbasins through and to Manhole 1; drainage through a valve to the Rotary Dump Facility Sediment Basin; maintenance of concrete surface integrity, and shredded material removed from the outfeed pad at the end of shift. The Shredder Facility now has daily inspections, and an annual inspection. The proposed Permit modification will allow the Shredder Facility to have daily, daily when stormwater present, and weekly inspections, and the annual inspection. These inspections will no longer be required daily, so daily is removed from this condition.

Rotary Dump Facility, Part I.F.26 - The Permittee conducts inspections of the Rotary Dump Facility for free drainage to the rotary building floor, and to the sediment basin; maintenance of concrete surface integrity; maintaining the water level below the grate within the sediment basin; leak detection systems; maintenance of concrete surface integrity; free drainage from the floor to trenches and from trenches to the sediment tank; and maintaining the water level below the collection trench grates. The Rotary Dump Facility now has daily inspections, and an annual inspection. The proposed Permit modification will allow the Rotary Dump Facility to have daily, weekly, and monthly inspections, and the annual inspection. These inspections will no longer be required daily, so daily is removed from this condition.

Intermodal Container Wash Building, Part I.F.27 - The Permittee conducts inspections of the Intermodal Container Wash Building for free drainage from the bootwashes to the troughs; free drainage from the wash bays to the troughs through to the sediment basin; water level within sediment basin below the grate; and the leak detection system. The Intermodal Container Wash

Building now has daily inspections; the proposed Permit modification will allow the Intermodal Container Wash Building to have daily and weekly inspections. Inspections will no longer be required daily, so daily is removed from this condition.

Decontamination Access Control Building, Part I.F.28 - The Permittee conducts inspections of the Decontamination Access Control Building for free drainage from the bootwash, respirator sink, shower, and the sink next to shower to the wastewater collection tank buried outside the southwest corner of the building; and the leak detection system. The Decontamination Access Control Building now has daily inspections. The proposed Permit modification will allow the Decontamination Access Control Building to have weekly and monthly inspections. Inspections will no longer be required daily, so daily is removed from this condition.

East Side Drainage Project, Part I.F.29 - The Permittee conducts inspections of the East Side Drainage Project for free drainage of stormwater from the catchbasins south of the Intermodal Container Wash Facility, north and south of the Intermodal Unloading Facility and between Tracks 2 and 3 to the 1997 Pond; maintenance of integrity of the dual walled pipe system Pipelines 5 and 5a; and maintenance of the Lift Station. The East Side Drainage Project now has daily inspections, and an annual inspection. The proposed modification will allow the East Side Drainage Project to have daily, weekly, and monthly inspections, and the annual inspection. Inspections will no longer be required daily, so daily is removed from this condition.

DU Storage Building Monitoring, Part I.F.30 - The Permittee conducts inspections of the DU Storage Building for verification of the physical integrity of the building floor, walls, and roof; determination of physical integrity of each DU waste container; and verification of the lack of any water in the building. The building and Asphalt floor are designed to contain leakage. The DU Storage Building now has weekly inspections. The proposed Permit modification will allow the DU Storage Building to have daily when stormwater present, and monthly inspections. These inspections will no longer be required weekly, so weekly is removed from this condition.

Additional Permit Changes

Approved Engineering Design Drawings for Waste/Wastewater Related Facilities, Part I.D.12, Table 5 – Table 5 of the Permit identifies engineering drawings approved by the DRC for the construction of the various facilities. Engineering drawings for the CWF are updated in the Table. The Permittee's Mixed Waste Surface Impoundment engineering drawing and specifications were submitted to the DSHW for review. These have been approved by the Director of DSHW and reference to these are included as part of this Permit modification.

Wastewater Management Requirements, Part I.E.14.e – the Mixed Waste Surface Impoundment is added to the wastewater management requirements, which require the Permittee to operate and maintain the Mixed Waste Surface Impoundment in accordance with the State-issued RCRA Part B Permit.

The Director of the DRC is proposing a modification of the Permit at this time to incorporate proposed changes found in the Permit and Appendices J and K (see Attachment H, I, and j for the underlined/strikeout versions of the Permit, Appendix J, and Appendix K, respectively).

Public Comment

There will be a public comment period for this Permit modification, giving the public the opportunity to review and comment on any of the proposed changes to the Permit. The comments received by the DRC during this period will be considered in making a final decision by the Director regarding the Permit changes. Under Utah Code Ann. Section 19-1-301.5, a person who wishes to challenge a Permit Order (permit/license modification/amendment approval) may only raise an issue or argument during an adjudicatory proceeding that was raised during the public comment period and was supported with sufficient information or documentation to enable the Director to fully consider the substance and significance of the issue.

REFERENCES

EnergySolutions, January 23, 2012, EPA ID Number UTD 98258898 Class 3 Modification Request to Construct and Operate a Mixed Waste Surface Impoundment: Letter to Scott T. Anderson, Director of Utah Division of Solid and Hazardous Waste from Timothy L. Orton Environmental Engineer EnergySolutions.

EnergySolutions, October 24, 2012, Radioactive Material Licenses UT2300478, Request to amend License and approve revised Appendix I, Organization: Letter to Rusty Lundberg, Director of Utah Division of Radiation Control from Sean McCandless Manager, Compliance and Permitting EnergySolutions.

EnergySolutions, November 8, 2012, Ground Water Quality Discharge Permit No. UGW 450005 – Request for Modification to Appendix J and K: Letter to Rusty Lundberg, Director of Utah Division of Radiation Control from Sean McCandless Manager, Compliance and Permitting EnergySolutions.

DRC, November 26, 2012, BAT Performance Monitoring Plan (Appendix J) and Contingency Plan (Appendix K) Revisions Dated November 8, 2012, Appendix J and K of Ground Water Quality Discharge Permit No. UGW 450005: Letter to Sean McCandless Manager, Compliance and Permitting EnergySolutions from Rusty Lundberg, Director Utah Division of Radiation Control.

EnergySolutions, February 5, 2013, Ground Water Quality Discharge Permit No. UGW 450005 – Revised Request for Modification to Appendix J and K; Response to DRC November 26, 2012 letter: Letter to Rusty Lundberg, Director, Utah Division of Radiation Control from Sean McCandless Manager, Compliance and Permitting EnergySolutions.

EnergySolutions, February 22, 2013, Ground Water Quality Discharge Permit No. UGW 450005. Request for Modification – Class A West Containerized Waste Facility: Letter to Rusty Lundberg, Director, Utah Division of Radiation Control from Sean McCandless Manager, Compliance and Permitting EnergySolutions.

DSHW, March 29, 2013, Mixed Waste Surface Impoundment Approval, UTD982598898: Letter to Daniel B. Shrum, Senior Vice President, Regulatory Compliance, EnergySolutions from Scott T. Anderson, Director Utah Division of Solid and Hazardous Waste.

EnergySolutions, May 9, 2013, GRAMA Request 120512: email from Sean McCandless of EnergySolutions to Charles Bishop, Phillip Goble, and Dean Henderson of the DRC.

EnergySolutions, May 21, 2013, Ground Water Quality Discharge Permit No. UGW 450005 – Revised Request for Modification to Appendix J and K; Response to DRC Memorandum dated 7 May 2013: Letter to Rusty Lundberg, Director, Utah Division of Radiation Control from Vern C. Rogers Environmental Manager, EnergySolutions.

DRC, June 19, 2013, March 8, 2013 EnergySolutions Revised Request for Modification to Appendix J and K: Memorandum to Phil Goble, DRC Compliance Section Manager from Charles Bishop and Dean Henderson.

DRC, July 3, 2013, Containerized Waste Facility (CWF) Design Drawings – proposed new expanded footprint: Radioactive Material License UT 2300249 and GWQDP UGW450005 Modification: Letter to Sean McCandless Manager, Compliance and Permitting EnergySolutions from Rusty Lundberg, Director Utah Division of Radiation Control.