

Northwest Interstate Compact
On Low-Level Radioactive Waste Management

P.O. Box 47600. Olympia, Washington 98504-7600. Mike Garner, Executive Director (360) 407-7102

February 18, 2016

Mr. Stephen Baker, Licensing Officer
Office of International Programs
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

RE: EnergySolutions Amendments Requested for IW017 and XW010

Dear Mr. Baker:

I would like to thank Ms. Elizabeth Smiroldo, the U.S. Nuclear Regulatory Commission's (NRC) Acting Chief of Export Controls and Nonproliferation Branch - Office of International Programs, for her January 21, 2016 letter regarding the amendments and extensions to IW017 and XW010 requested by EnergySolutions.

Previously, in 2010-11, EnergySolutions sought a six-year extension to IW017 and XW010 and at that time I provided comments on behalf of the Northwest Compact in a March 2, 2011 letter (attached). These comments remain valid today.

I do have concerns with certain references to residual low-level radioactive waste (LLRW) that can be attributed to EnergySolutions facilities that is included in EnergySolutions' November 2, 2015 letter to yourself. Under the "Waste" heading located on page 7, paragraph two states:

Residual radioactive material from processing the imported material such as floor sweepings, slag, ash, decontaminated solution and abrasives, etc which is attributable to EnergySolutions under its Tennessee radioactive material licenses, as amended from time to time, will be disposed of in accordance with procedures and applicable license conditions and permits. In accordance with EnergySolutions' Tennessee radioactive material license, waste that is considered to be attributable to EnergySolutions under the attribution model approved by Tennessee is also considered by TDRH to be residual waste (secondary waste) generated by EnergySolutions and not its suppliers. Such residual waste is normally disposed of at the EnergySolutions' Clive disposal facility located in Clive, Utah. Any waste that is not considered to be attributable to EnergySolutions will be returned to Canada under the EnergySolutions' Export License (XW010).

The reason this poses a concern for the Northwest Compact is in the 2006-07 time frame one of the LLRW streams the state of Tennessee authorized EnergySolutions' Bear Creek Operation to attribute as its own LLRW was primary hearth ash resulting from the incineration of other generators LLRW. This is unacceptable to the Northwest Compact and such LLRW is not provided access to the region for disposal at EnergySolutions' Clive facility.

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The Northwest Compact and EnergySolutions came to an agreement regarding LLRW that can be attributed to its Bear Creek Operations as residual LLRW generated in conjunction with its incineration process. Mr. Thomas Magette, EnergySolutions' Senior Vice President of Nuclear Regulatory Strategy, provided a copy of this agreement to Ms. Margaret Doane, Director of the NRC's Office of International Programs, in a letter dated March 1, 2011 (attached). This criteria should be used to determine residual LLRW resulting from the Bear Creek Operations incineration process. Doing so ensures the residual LLRW will be eligible for disposal at EnergySolutions' Clive site.

The Northwest Compact has no issue with the current amendments being requested by EnergySolutions provided the following requirements are fulfilled:

1. The attached agreement is used to determine residual LLRW for EnergySolutions' Bear Creek Operations incineration process.
2. All primary hearth ash resulting from incineration of LLRW received from EnergySolutions Canada Inc. (Monserco Limited) is returned to EnergySolutions Canada Inc. The primary hearth ash is not eligible for disposal at EnergySolutions' Clive, UT site.
3. All containers used by EnergySolutions Canada Inc. to ship LLRW to either EnergySolutions' Bear Creek Operation (Duratek Services Inc.) or its two new consignees (Erwin ResinSolutions, LLC and EnergySolutions Services, Inc.) that are not reused or recycled are returned to EnergySolutions Canada Inc. Those containers that are not reused or recycled are not eligible for disposal at EnergySolutions' Clive, UT site.
4. LLRW generated by EnergySolutions' two new consignees as a result of processing Canadian LLRW is not eligible for disposal at EnergySolutions' Clive, UT site.

The Northwest Compact appreciates the opportunity to comment on the license amendments requested by EnergySolutions. Should you have any questions please contact me at (360) 407-7102.

Sincerely,



Mike Garner, Chair/Executive Director
Northwest Interstate Compact

cc: Northwest Compact Committee Members

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8-16-14
DMJ*



March 1, 2011

CD11-0046

Ms. Margaret Doane
Director
Office of International Programs
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Subject: Applications for Revisions to the Expiration Dates of Export License
XW010 and Import License IW017

Dear Ms. Doane:

The purpose of this letter is to provide additional information regarding Duratek's (a subsidiary of EnergySolutions) applications of December 17, 2009 to extend the expiration dates on the subject import and export licenses.

On November 9, 2010, the U.S. Court of Appeals for the Tenth Circuit reversed a lower court's ruling and ruled that the Northwest Interstate Compact (NWIC) has authority over the Clive Disposal Facility. This is of particular relevance to the subject applications because the NWIC has not authorized the importation of foreign-generated low level radioactive waste (LLW) into the Northwest Compact region. Nonetheless, the NWIC recognizes that the processing of LLW results in the generation of residual waste that is commingled and should be attributed to the processor. This interpretation is consistent with the NRC's definition of residual waste in 10 CFR 20 Appendix G.

EnergySolutions has worked with the NWIC and the State of Utah to define more clearly what may be considered residual waste from incineration of foreign-generated wastes. The attached document identifies and describes these wastes. EnergySolutions has committed to send no wastes arising from the incineration of foreign-generated LLW for disposal at Clive that are not specified as residual wastes in the attachment. NWIC and the State of Utah have agreed that in so doing, EnergySolutions will meet the existing restrictions on the disposal of foreign-generated waste at the Clive facility imposed by the NWIC as stated in NWIC's *Resolution Clarifying the Third Amended Resolution and Order*.

This represents a change from our past practice prior to the decision of the Court of Appeals. If the NRC and or the NWIC believe that this restriction should be included by the NRC on the subject licenses, EnergySolutions has no objection.

Rec'd
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JAN

If you have any questions or need additional information, please contact me at (240) 565-6148 or temagette@energysolutions.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas Magette". The signature is stylized with a large, sweeping initial "T" and "M".

Thomas E. Magette, P.E.
Senior Vice President
Nuclear Regulatory Strategy

Residual Low-Level Radioactive Wastes from Incineration

In processing foreign waste imported into the United States, it is EnergySolutions practice to incinerate the waste in batches, or campaigns, and return the primary hearth ash to the host country. Containers in which foreign LLRW is shipped would also be returned to the host country unless reused or recycled as described later in this document. This is necessary in order to conform to the restrictions on the disposal of foreign-generated waste at the Clive facility imposed by the Northwest Interstate Compact (NWIC) as stated in NWIC's *Resolution Clarifying the Third Amended Resolution and Order*. Defined below are the wastes resulting from incineration that NWIC approves for disposal at the Clive facility.

Waste Attributable to Processor – Prior to initiating a dedicated campaign, extensive manual cleanout of the continuous-feed incinerator at EnergySolutions' Bear Creek facility must be conducted in order to minimize the likelihood of cross contamination from wastes burned in the previous incineration cycle. Cleanout efforts and some other facility activities generate small quantities of material over an extended time period. These materials contain radioactivity commingled as a result of working with wastes from multiple generators. As a result, radioactivity from some waste streams that are incinerated cannot be attributed to a single generator. A comprehensive list of waste streams that cannot be attributed to a single generator and may be attributed to EnergySolutions and are permitted for disposal at the Clive facility by the NWIC is contained in Table 1.

Empty Packaging – Empty packaging from inbound international shipments will be reused for return of customer ash or other material, reused within the EnergySolutions facility, or released for unrestricted use if not contaminated. Metal packaging also may be recycled into metal products for reuse within the nuclear industry.

Large Campaigns – It is possible that in some instances, portions of the wastes listed above may be attributed to and returned to the original generator. The attribution requirements in EnergySolutions' Tennessee Radioactive Materials licenses acknowledge that large incineration campaigns (typically >100,000 pounds) of a single generator's materials can render more of the residual wastes attributable to that generator. EnergySolutions will collect and return such waste when practical; however, all of the wastes described above are acceptable for disposal at EnergySolutions' Clive facility.

Regulatory Basis – Considerations related to attribution of waste generated through the waste preparation and incineration processes as described above are explicitly addressed in EnergySolutions' Tennessee Radioactive Materials Licenses and are derived from information and guidance contained in Schedule RHS 8-33 of Tennessee Regulation 1200-2-5. This rule is the Tennessee equivalent to NRC Regulation 10 CFR 20 Appendix G. Residual waste is defined by both regulators as:

'Residual Waste' means low-level radioactive waste resulting from processing or decontamination activities that cannot be easily separated into distinct batches attributable to specific waste generators. This waste is attributable to the processor or decontamination facility, as applicable.

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Table 1. Waste Attributable to Processor

Item	Description
Mops and rags from process area, equipment, and sorting table decontamination	General material handling, waste inspection or sorting prior to incineration inevitably results in the need to periodically decontaminate the waste sorting table, the conveyor belts, rollers and floor areas.
Floor sweepings	Floor sweepings from contaminated process areas are generally collected in small quantities over an extended time.
Incinerator off-gas system wastes: boiler ash, fly ash, bag house bags, HEPA filters, scrubber salts	These systems cannot be effectively decontaminated for a campaign and have service lives that exceed the length of a dedicated campaign.
Replacement parts for the incinerator: thermocouples, flow meters, pH probes, gaskets, augers, and refractory linings	Parts that become contaminated over long periods of time and must be replaced upon failure
Reusable personal protective equipment: laundered cloth coveralls, hoods, rubber and cut-resistant gloves, respirators, and respirator filters	Most PPE is suitable for multiple uses until wear or slow buildup of contamination renders them waste
Health physics and laboratory wastes	Commingled swipes and process samples: scrubber brine, ash, and refractory
Maintenance and support equipment: reusable contaminated pumps, valves, hoses, hand tools, test and inspection hardware, jacks, hoists, and rebuilt spare parts	Long-life tools and components or support equipment are an integral part of equipment operation.

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Northwest Interstate Compact

On Low-Level Radioactive Waste Management

P.O. Box 47600. Olympia, Washington 98504-7600. (360) 407-7102. Mike Garner, Executive Director

March 2, 2011

Ms. Jenny Wollenweber
Export License Officer
Office of International Programs
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

RE: Extension Requested for Import License IW017 and XW010

Dear Ms. Wollenweber:

I would like to thank Janice Owens, Branch Chief of the U.S. Nuclear Regulatory Commission's Expert Controls and International Organizations, for her January 24, 2011 letter. The letter details the six-year extension that EnergySolutions' Bear Creek facility is seeking for import license IW017 and export license XW010. IW017 would provide for the continued import of low-level radioactive waste (LLRW) from Monserco Limited, located in Canada, for processing at the Bear Creek facility. XW010 would provide for the return of all non-conforming LLRW, as well as other LLRW that does not have an approved disposal option in this country.

As you know, the U.S. Tenth Circuit Court of Appeals issued a ruling in November 2010 regarding the Northwest Compact's appeal of the May 2009 U.S. District Court ruling. The Appeals Court found that the Northwest Compact does have the authority to deny access to out-of-region LLRW for disposal at the Clive facility. EnergySolutions has indicated it will not appeal the decision of the Appeals Court. As a result, the Northwest Compact's Third Amended Resolution and Order and its Resolution Clarifying the Third Amended Resolution and Order remain in effect.

At the May 2008 committee meeting of the Northwest Compact, Utah's representative introduced a Resolution Clarifying the Third Amended Resolution and Order (see attachment.) The resolution was adopted by a unanimous vote of the committee. The purpose of the resolution was to clarify that the Third Amended Resolution and Order serves as an arrangement that provides access to the region to certain out-of-region LLRW generated in unaffiliated states and interstate compacts. It does not address foreign LLRW. A new arrangement would need to be adopted by the committee prior to foreign generated LLRW being provided access to the region for disposal at the Clive facility. This includes foreign generated LLRW that is characterized as domestic generated LLRW by another interstate compact or unaffiliated state.

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The Resolution Clarifying the Third Amended Resolution and Order was adopted by the Northwest Compact committee in May 2008, once it became aware that foreign LLRW associated with IW017 was being imported from Canada, incinerated, and the resulting incinerator ash was then attributed as Bear Creek LLRW and shipped to the Clive facility for disposal as Tennessee LLRW. This change in attribution resulted from an amendment to the Bear Creek operating license issued by the state of Tennessee.

EnergySolutions has discussed the extension request for IW017 and XW010 with representatives of the Northwest Compact and the state of Utah. The company has stated that all primary hearth ash as well as all shipping containers that are not reused or recycled will be shipped back to Monserco Limited in Canada. The company has developed a sheet that attempts to more clearly define that LLRW which would be considered to be residual LLRW and would be eligible for disposal at the Clive facility (see attachment.)

Therefore, the Northwest Compact has no issue with the requested extensions to IW017 and XW010 provided the following conditions are met.

1. All primary hearth ash resulting from incineration of LLRW received from Monserco Limited is returned to Monserco Limited. The primary hearth ash is not eligible for disposal at EnergySolutions' Clive facility.
2. All containers used by Monserco Limited to ship LLRW to the Bear Creek facility that are not reused or recycled are returned to Monserco Limited. Those containers that are not reused or recycled are not eligible for disposal at EnergySolutions' Clive facility.
3. NRC authorizes the extension of XW010 as requested.

Should you have any questions please contact me at (360) 407-7102.

Sincerely,



Mike Garner, Executive Director
Northwest Interstate Compact

cc: Northwest Compact Committee Members