

**Testimony of R Steve Creamer**  
**Chairman and Chief Executive Officer, EnergySolutions**  
**Energy and Air Quality Subcommittee**  
**House Energy and Commerce Committee**  
**May 20, 2008**

Mr. Chairman, Members of the Subcommittee, I am Steve Creamer, Chairman and Chief Executive Officer of EnergySolutions. It is an honor to appear before you today. I would like to acknowledge my home state congressman, Jim Matheson.

EnergySolutions, headquartered in Salt Lake City, Utah, is a nuclear services company with operations throughout the United States and around the world. EnergySolutions is committed to helping the United States achieve energy independence, reduce carbon emissions, and protect the environment. We are a world leader in the safe recycling, processing, transporting and disposal of nuclear material. EnergySolutions believes in "Safety First." Safety for our workers. Safety for the environment. Safety for the communities in which we operate. EnergySolutions has been recognized by OSHA for safety excellence. We transport nuclear materials over 8 million miles per year and we hold the highest rating from the U.S. Department of Transportation.

EnergySolutions provides integrated services and solutions to the nuclear industry, the federal government, doctors, hospitals and research facilities. We specialize in – recycling, processing, disposal, decommissioning, environmental restoration, transportation, and fuel management. We have over 100 Federal and State licenses and permits and we own and operate several state-of-the-art facilities.

In Oak Ridge, Tennessee we have the Bear Creek facility which has one of two metal-melt facilities in the world. This state-of-the-art facility has recycled metals, both domestic and international, for over 12 years. The Bear Creek facility has recycled over 56,000 tons of metals. Of this amount, over 1,000 tons has come from international sources. The recycled metals are used to produce shield blocks for reuse at nuclear facilities and accelerator facilities throughout the world. Shield blocks made at our Bear Creek facility protect the Spallation Neutron Source at the Department of Energy's Oak Ridge National Laboratory in Tennessee. Many of the metals in these shield blocks came from international metals that were recycled in Tennessee.

The Bear Creek facility also has a world-class incinerator and the ability to volume reduce material 200 to 1 so that the amount of waste transported and disposed is minimized.

Low-level radioactive material from nearly all 104 domestic nuclear plants is sent to Bear Creek for processing, with the residual waste disposed at our Clive, Utah facility. We also process material at Bear Creek from the Department of Energy, Department of Defense and the Tennessee Valley Authority.

Our Clive, Utah facility, which has been in operation since 1988, is a privately owned Class A low-level radioactive waste disposal site. Class A low-level waste from international generators has been disposed at Clive for over eight years. Clive has enough capacity to take all of the Class A waste from the 104 domestic nuclear plants, from both on-going operations and the ultimate decommissioning of every plant, and still have approximately 50 million cubic feet of capacity remaining. According to the GAO,

in testimony before Congress in 2004, “disposal availability of class A waste is not a problem in the short or longer term.”<sup>1</sup>

The Clive facility has disposal capacity for at least the next 30 years, assuming future receipts are equal to 2007. This does not take into account that many of the nuclear plants will get license extensions and therefore will delay decommissioning of some of these plants. Nor does it take into account the technical advancements that will take place over the years which will likely reduce the volume of waste to be disposed.

*EnergySolutions* is helping clean up the legacy waste at many of the Department of Energy sites including Moab, Oak Ridge, Paducah, Hanford, Savannah River, Los Alamos and West Valley. *EnergySolutions* was a major part of the team that successfully cleaned up and closed the Rocky Flats and Fernald sites.

*EnergySolutions* is also the leading U.S. company with experience in recycling spent nuclear fuel. We have the exclusive license in North America to the recycling technology that is employed at the Sellafield facility in the United Kingdom. Addressing the issue of spent nuclear fuel management is one of the keys to helping make the nuclear renaissance a reality. Having the capability in the United States to recycle spent fuel is essential to solving the issue of having spent fuel stored at nuclear plants throughout the United States.

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<sup>1</sup> Statement of (Ms) Robin M. Nazzaro, Director Natural Resources and Environment, Before the Committee on Energy and Natural Resources, United States Senate, September 30, 2004, page 15.

Overseas, *EnergySolutions* manages 22 nuclear reactors in the United Kingdom (U.K.), including four plants that generated over 5,000 gigawatt hours of electricity for the U.K. in 2007. Eighteen of these plants are being decommissioned by *EnergySolutions*. We are also exploring opportunities to site low-level waste disposal facilities abroad in order to help other countries address their waste management issues.

The Energy Information Administration is projecting that the world's energy consumption will grow by 57% over the next 20 years. In order to meet the growing energy demand in the United States and around the world a variety of energy sources must be utilized including solar, wind, biofuels and nuclear. We must also increase conservation and energy efficiency.

Nuclear energy is a clean, safe, reliable and non-carbon emitting source of energy. It must play a growing role in meeting our energy demand. *EnergySolutions'* mission is to help the United States achieve energy independence and security. We can help accomplish this by cleaning up the nuclear waste legacy of the past and by helping with the current waste management issues to pave the way for nuclear power to play a greater role in solving the energy crisis that faces us today.

In order for the United States to be a leader in the energy field it must participate and compete on the global stage. In today's global economy there are few barriers to trade in international markets. Oil, copper, and gold are all traded on the world market. Eighty-five percent of the fuel used in U.S. nuclear reactors is imported. Our computers and plastic bottles that we put at the end of our driveways in the recycling bins are recycled overseas. The hazardous waste that is the byproduct of the recycling process stays in

China and other foreign countries for disposal. The waste is not sent back to the United States for disposal.

The United States needs companies like *EnergySolutions* to safely and responsibly manage the recycling, processing and disposal of nuclear material. We should stand ready to provide technical solutions to those countries that are in need. This does not mean that *EnergySolutions*, or any other U.S. company, should be responsible for disposing of the world's nuclear waste.

*EnergySolutions* is committed to maintaining Clive's capacity principally for the domestic nuclear power industry and our other domestic customers. We understand that Clive is a national asset and we will protect it. This is why we offered to self-impose a limit on the disposal of international material to 5 percent of the remaining capacity at Clive. We will not under any circumstance use Clive in a manner that will adversely affect its capacity to fully serve our United States customers, either now or in the future. You have my commitment on this.

Our pending application with the Nuclear Regulatory Commission (NRC) to import low-level nuclear material from Italy, process it at our Bear Creek facility in Tennessee, and dispose of a small amount of residual Class A material at our Clive, Utah facility is consistent with all applicable laws and regulations, consistent with past practices, and consistent with, in limited situations, utilizing our world class facilities to solve complex challenges.

The Italian material – metals, paper, plastics, resins, clothing – is the same type of material that we handle every day from the domestic nuclear industry at our U.S. facilities. Before any material would leave Italy, *EnergySolutions* personnel would subject it to extensive waste characterization to ensure that all of the imported material met the processing and disposition requirements of the Bear Creek and Clive facilities. Only material that met our license requirements would be imported. Since the Clive facility can only handle Class A waste, we would ensure that only material that met the Clive waste acceptance criteria after processing would be imported. According to the NRC regulations, waste is not classified as A, B or C until it is in its final form and packaged for disposal. Once the material was processed at the Bear Creek facility, the residual waste would then be packaged and classified for disposal. The residual waste from the processing at Bear Creek would be LLRW Class A waste that would then be disposed at Clive. All material would be packaged and shipped in accordance with the International Atomic Energy Agency regulations and the requirements of the U.S. Department of Transportation. Approximately one-third of the Italian material is metal that would be recycled and formed into shield blocks. The remaining material would be incinerated and volume reduced. Only around eight percent of the material would be disposed at the Clive facility. This is less than one percent of what we dispose at Clive each year. No material would be disposed in Tennessee. No material would be orphaned in the United States.

American companies designed three of the four nuclear reactors in Italy. Over 80% of the uranium used to make the fuel for these reactors was mined in the United States. Some was mined in Utah and enriched in Kentucky and Ohio. The Italian spent nuclear fuel, which contains 99.998% of the radioactivity, has either been sent to the United Kingdom for recycling or will be sent to France for recycling. No spent fuel will be imported to the United States.

I have full faith in the Nuclear Regulatory Commission and believe that the NRC has the scientific and technical expertise to continue to make decisions on import license applications. I do not think that the NRC should be stripped of this responsibility and therefore do not believe that H.R. 5632 is warranted.

Mr. Chairman, I have spent my whole career cleaning up our environment - everything from the Oak Ridge National Laboratory in Tennessee, to Moab, Utah to Paducah, Kentucky. *EnergySolutions* is committed to continuing to clean up the nuclear legacy of the past and to help the United States achieve energy independence by ensuring a bright future for nuclear power.

I am happy to answer your questions. Thank you.

**Attachments A - I**

### Summary of Testimony of R Steve Creamer

- **EnergySolutions**, headquartered in Salt Lake City, Utah is a nuclear services company that is committed to helping the United States achieve energy independence, reduce carbon emissions, and protect the environment.
- **EnergySolutions** is a world leader in the safe recycling, processing, transporting and disposal of nuclear material.
- **EnergySolutions** believes in "Safety First."
- Our state-of-the-art Bear Creek facility in Tennessee has one of two metal-melt facilities in the world. Bear Creek has recycled over 56,000 tons of metals including international metals.
- The recycled metals are formed into shield blocks which are used in nuclear and accelerator facilities throughout the world.
- Low-level radioactive material from nearly all 104 domestic nuclear plants is sent to Bear Creek for processing with the residual Class A waste disposed at our Clive, Utah facility.
- We also process material from the Departments of Energy and Defense, the Tennessee Valley Authority, hospitals and research facilities.
- The Clive facility, which has been in operation since 1988, has over 30 years of capacity. Clive has capacity to take all of the Class A waste from the 104 domestic nuclear plants and still have approximately 50 million cubic feet of capacity left.
- GAO stated before Congress in 2004 that "disposal availability of class A waste is not a problem in the short or longer term."
- **EnergySolutions** is cleaning up the legacy waste at many of the Department of Energy sites – Moab, Paducah, Oak Ridge, Hanford, Savannah River.
- **EnergySolutions** is a leading U.S. company with experience in recycling spent nuclear fuel.
- A variety of energy sources must be utilized to meet the growing energy demand in the U.S. and abroad including – solar, wind, biofuels and nuclear.
- Nuclear energy is a safe, clean, reliable and non-carbon emitting source of energy.
- **EnergySolutions** safely and responsibly manages the recycling, processing and disposal of nuclear material.
- **EnergySolutions** is committed to maintaining Clive's capacity principally for our domestic customers. This is why we offered to self-impose a limit on the disposal of international material to 5% of Clive's remaining capacity.
- Our pending application with the NRC to import low-level material from Italy is consistent with all applicable laws and regulations.
- The Italian material – metal, paper, clothing – is the same type of material that we handle every day from the domestic nuclear industry at our U.S. facilities.
- Approximately 1/3 of the material would be recycled. The remaining material would be incinerated or volume reduced. Around 8% of the material would be disposed at Clive. No material would be orphaned in the U.S. No material would be disposed in Tennessee.



## Proposed Italian Project Fact Sheet

EnergySolutions, a world leader in the recycling, processing and disposal of nuclear material, is committed to U.S. energy independence, reduced carbon emissions, environmental protection and safety. EnergySolutions provides services that are critical to support nuclear power generation that is key to addressing the threat of global warming.

EnergySolutions employs more than 5,000 dedicated professionals worldwide. Safety is EnergySolutions first priority - safety for our employees, safety for the environment, and safety for our communities. EnergySolutions has been recognized for safety excellence and transports nuclear material safely over 8 million miles per year.

EnergySolutions has a pending application with the Nuclear Regulatory Commission (NRC) to import low-level nuclear material from Italy and process it at the Bear Creek facility in Tennessee and dispose of a small amount of Class A material at the Clive facility in Utah. The NRC granted EnergySolutions a similar import license in 2006. Bear Creek has been processing foreign material for over 12 years.

The NRC issues an import license if it deems that the material would be handled in accordance with its regulations to protect public health, safety and the environment. The Utah Division of Radiation Control informed the NRC on March 26, 2008 that "Utah Radiation Control Rules do not prohibit the disposal of low-level radioactive waste from foreign generators." In a letter dated March 4, 2008, the Tennessee Division of Radiological Health, Department of Environment and Conservation, informed the NRC that the "Division finds no technical reason to prohibit processing of [the] described waste at the Duratek [EnergySolutions] facilities in Tennessee."

EnergySolutions recognizes that the Clive facility is a national asset and that our primary commitment is to maintain Clive's capacity principally for the domestic nuclear power industry and our other domestic customers. Clive has enough capacity to dispose of all of the low-level radioactive waste from the eventual decommissioning of the 104 U.S. nuclear reactors and still have abundant capacity, over 50 million cubic feet.

The material would be inspected in Italy by EnergySolutions highly trained personnel to ensure that it would meet the licenses at the Bear Creek and Clive facilities. It would be shipped from Italy to the United States in accordance with the International Atomic Energy Agency regulations and then transported by rail or truck to the Bear Creek processing facility in accordance with the requirements of the U.S. Department of Transportation. The material - metals, paper, plastic, resins - is the same type of material that EnergySolutions processes and disposes each day from the domestic nuclear industry.

Over one-third of the material is metal that would be recycled at Bear Creek in a state-of-the-art facility. The recycled metals would be formed into shield blocks to be reused within the nuclear industry. The remaining material would be processed and volume reduced up to 200 to 1 so that the ultimate amount of material disposed at Clive would be just a small fraction of what is disposed at Clive on an annual basis. No material will be disposed in Tennessee.

Electricity has been produced in Italy by American and British designed nuclear reactors. The fuel for the reactors came mostly from U.S. uranium. Some of it was mined in Utah and enriched in Ohio and Kentucky. The spent nuclear fuel, which contains 99.998% of the radioactivity resulting from the nuclear generation of electricity, will be sent to France for recycling. The low-level material, containing just 0.002% of the radioactivity, would be processed and disposed in the United States.

EnergySolutions recognizes that energy security is essential to our nation's national security. Our nation must reduce its dependence on foreign oil, diversify its energy supply and increase conservation and energy efficiency. Nuclear power is a clean, safe, reliable source of energy that is vital in helping the United States achieve this important national objective.

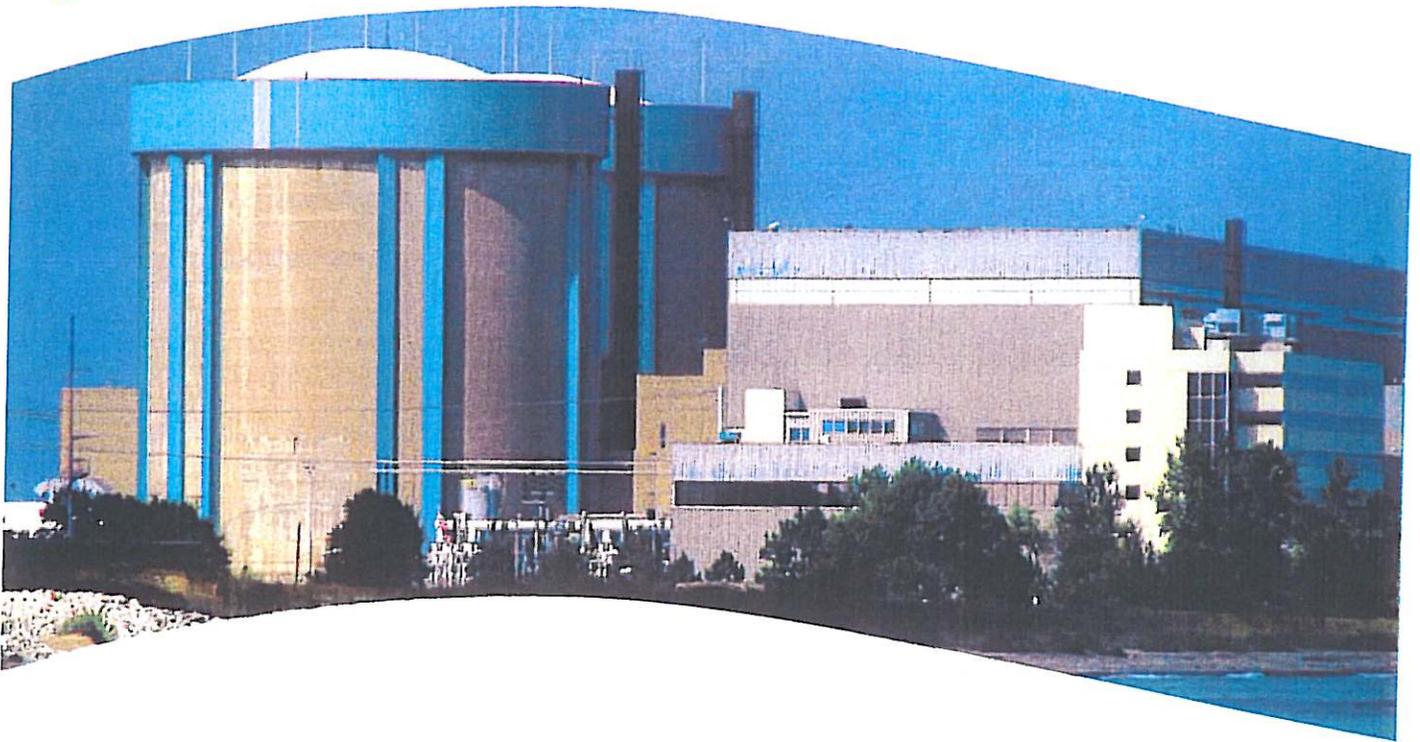
As our nation and the world move to increase the use of nuclear power we must recognize that we are one world. The United States should stand ready to provide technical solutions to other countries. This does not mean that EnergySolutions, or any other U.S. company, will be responsible for disposing of the world's nuclear waste.

EnergySolutions is committed to protecting our environment, our employees and our local communities. We are committed to helping the United States achieve energy security. These are principles from which we will not waiver.



Integrated Services  
And Solutions For The  
Nuclear Energy Industry

**Committed to energy  
independence, reduced carbon  
emissions, environmental  
protection, and safety**



The Energy Information Administration (EIA) is projecting the world energy consumption to grow by 57% over the next 20 years. Even with increased energy efficiency and conservation the world and the United States will see significant energy growth.

In order to meet the growing energy demand, and replace energy generation capacity that reaches the end of its useful life, the United States and the world must increase conservation and efficiency and utilize a variety of energy sources including solar, wind, biofuels and nuclear.

- Nuclear Energy is:
  - Clean
  - Safe
  - Reliable
- Currently nuclear power generates approximately 20% of the electricity in the United States.
- In 2007, the Nuclear Regulatory Commission (NRC) received seven applications for new nuclear plants.
- In order to make the nuclear renaissance a reality, the low-level radioactive waste generated by the nuclear plants must be safely processed and disposed.



In a global economy there are few barriers to trade in international markets.

- Oil, copper, gold, and many different chemicals are traded on the world market
- U.S. electronics/computers are recycled overseas
- U.S. plastic bottles are recycled overseas
- U.S. paper is recycled overseas
- Many medical isotopes are made overseas and are imported into the United States
- 85 percent of the U.S. nuclear fuel is imported

The integration of national economies into an international marketplace requires the United States to compete on the global stage. In order for nuclear power to grow as an alternative energy source, the United States needs global companies like EnergySolutions to safely and responsibly manage the recycling, processing and disposal of nuclear material.



*EnergySolutions*, a world leader in the recycling, processing and disposal of nuclear material, is committed to U.S. energy independence, reduced carbon emissions, environmental protection and safety.

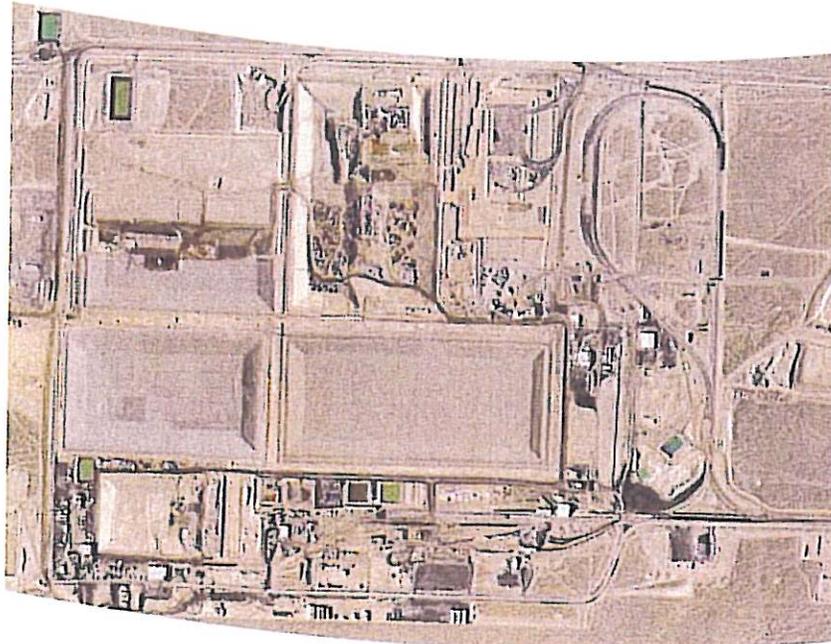
*EnergySolutions* provides integrated services and solutions to the nuclear energy industry, the federal government, doctors, hospitals and research facilities through:

- Recycling
- Processing
- Volume reduction
- Disposal
- Decommissioning
- Environmental restoration
- Transportation
- Quality assurance
- Fuel management
- Operating reactors

*EnergySolutions* – a leader in its field has:

- 20 years of experience in environmental restoration and waste disposal
- 12 years of experience in recycling nuclear materials
- Exceptional safety record – “Safety First”
- State-of-the-art technology
- 125 active Nuclear Regulatory Commission licenses
- Spent fuel management capabilities
- Involved in every reactor decommissioning in the U.S.
- Provides services to every U.S. commercial nuclear utility

*EnergySolutions* works closely with the United States government to assist in the cleanup of legacy Department of Energy sites that were contaminated principally during the weapons production program. *EnergySolutions* also works closely with the federal government on the global threat reduction program and other programs to keep our world safe and to enhance our environment.



“EnergySolutions has no plans to open the gates of Clive for wholesale disposal of the world’s nuclear waste”

-Steve Creamer,  
Chairman and CEO of EnergySolutions.

EnergySolutions has committed that it will not import wholesale amounts of low-level nuclear materials into the United States.

“EnergySolutions has no plans to open the gates of Clive for wholesale disposal of the world’s nuclear waste” said Steve Creamer, Chairman and CEO of EnergySolutions. “As we conduct business in other countries we need to be able to offer solutions that integrate our worldwide capabilities and from time to time that involves recycling or disposing some foreign material at our U.S. facilities. In these limited situations, we bring the use of world class facilities as a solution to complex challenges. This is the nature of global trade. We will not under any circumstance use the facilities in a manner that adversely affects the capacity needs to handle our United States customers now or in the future.”

As the nation and the world move to increase the use of nuclear power we must recognize that we are one world. One that through trade and communications is becoming more connected. The United States government and U.S. companies should stand ready to provide technical solutions to those countries that are in need. This does not mean that EnergySolutions, or any other company in the United States, should be responsible for disposing of the world’s nuclear waste. In fact, EnergySolutions anticipates that most waste can be processed and disposed in the countries of origin.

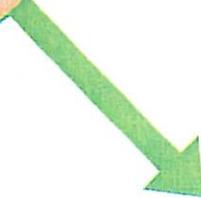
## ITALIAN PROJECT



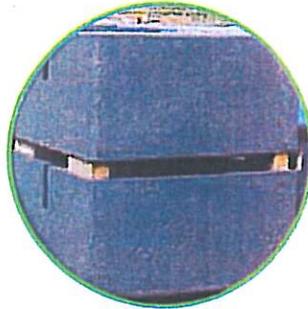
U.S. companies built and provided most of the fuel to Italy's nuclear power plants.



Italian generated electricity



Spent Fuel - 99.998% of radioactivity sent to France for reprocessing



Metal to be melted in Tennessee. Recycled for usage in Japan (0% radioactivity stays in TN)



Low-Level Waste - Some to be processed in Tennessee (<0.002% radioactivity). No disposal in TN. Small residual amount to be disposed of at EnergySolutions Clive facility in Utah.

## FACTS ABOUT ENERGYSOLUTIONS

- EnergySolutions employs more than 5,000 dedicated professionals worldwide.
- EnergySolutions has conducted approximately 51,000 shipments of nuclear material without incident – 300 radioactive shipments per month - averaging nearly 8 million miles per year.
- EnergySolutions processing and disposal capabilities are critical to the nuclear power industry, helping to maintain the U.S. as a leader in the nuclear industry;
  - Processing at the Bear Creek facility in Tennessee can reduce volumes 200 to 1.
  - Bear Creek has 1 of 2 melting facilities in the world.
  - Recycled over 120 million pounds of radiologically contaminated metals for beneficial reuse in the nuclear industry since 1993.
  - The Clive facility in Utah has sufficient capacity for all low-level radioactive waste from the eventual decommissioning of all 104 U.S. reactors. Clive would still have over 50 million cubic feet of capacity.
  - Low-level waste is less radioactive than the material in common smoke detectors.
- EnergySolutions operates in a highly regulated industry. Dozens of audits are conducted by federal and state regulatory agencies and commercial audit entities each year.
- EnergySolutions has imported nuclear material for over 12 years in compliance with all regulatory requirements.
- The Italian import license application is for up to 20,000 tons of low-level nuclear material.
  - Same types of material as from U.S. utilities: metals, resins, papers, etc.
  - Most of the material originates from U.S. technology and fuel.
- The Italian material would only be imported after extensive characterization by EnergySolutions in Italy.
  - Would meet waste acceptance criteria for Bear Creek and Clive facilities.
- The Utah Division of Radiation Control informed the NRC on March 26, 2008 that "Utah Radiation Control Rules do not prohibit the disposal of low-level radioactive waste from foreign generators." In a letter dated March 4, 2008, the Tennessee Division of Radiological Health, Department of Environment and Conservation, informed the NRC that the "Division finds no technical reason to prohibit procession of [the] described waste at the Duratek [EnergySolutions] facilities in Tennessee."

We're Part of The Solution.

CORPORATE HEADQUARTERS  
423 West 300 South, Suite 200  
Salt Lake City, Utah 84101  
Phone (801) 649-2000; Fax (801) 321-0453

General Information: [info@energysolutions.com](mailto:info@energysolutions.com)  
Investor Information: [ir@energysolutions.com](mailto:ir@energysolutions.com)  
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United States | Canada | United Kingdom



**ENERGYSOLUTIONS**

[www.energysolutions.com](http://www.energysolutions.com) NYSE: ES

**Eduardo Sastre**

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**From:** Brooke Smith  
**Sent:** Wednesday, March 26, 2008 3:47 PM  
**To:** Eduardo Sastre  
**Subject:** FW: License Application IW023

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**From:** Dane Finerfrock [mailto:DFINERFROCK@utah.gov]  
**Sent:** Wednesday, March 26, 2008 3:29 PM  
**To:** Stephen Dembek  
**Cc:** Brooke Smith  
**Subject:** License Application IW023

Dear Mr. Dembek:

This refers to your letter dated February 19, 2008. I appreciate the opportunity to comment on the EnergySolutions license application to import radioactive materials, some of which is expected to be disposed of at the EnergySolutions disposal site in Utah as low-level radioactive waste (LLRW).

We are providing the following comments:

- \* The Utah Radiation Control Rules do not prohibit the disposal of low-level radioactive waste from foreign generators.
- \* All LLRW sent to EnergySolutions for disposal must meet the license conditions of the current Radioactive Materials License, #UT2300249, issued by the Utah Division of Radiation Control.
- \* Please be aware that the Utah Radiation Control Board and Utah Governor Jon Huntsman wrote to Commissioner Klein requesting the NRC license deliberations take into account several national policy issues relating to the application.

Please contact me at 801-536-4250 if you have any questions.

Sincerely,

Dane Finerfrock, Director  
Utah Division of Radiation Control



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF RADIOLOGICAL HEALTH  
L&C ANNEX - THIRD FLOOR  
401 CHURCH STREET  
NASHVILLE, TENNESSEE 37243

March 4, 2008

Mr. Stephen Dembek, Branch Chief  
Export Controls and International Organizations  
Office of International Programs  
United States Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Mr. Dembek:

SUBJECT: Applications for NRC Import License IW023 and NRC Export License XW013

This letter acknowledges your letter dated February 19, 2008, with attachments, concerning the import and export license applications from EnergySolutions for the transfer of radioactive waste from Italy to Duratek (EnergySolutions) facilities in Tennessee.

Upon review of this information and the references to the authorizations granted by the Tennessee Radioactive Material Licenses issued to Duratek, the Division finds no ~~technical reason to prohibit the processing~~ of this described waste at Duratek facilities in Tennessee.

Thank you for the opportunity to comment on these applications.

Sincerely,

A handwritten signature in cursive script that reads "Johnny C. Graves".

Johnny C. Graves  
Licensing, Registration, & Planning Manager  
Division of Radiological Health  
Department of Environment and Conservation

11005711  
 ENERGY SOLUTIONS

and

11005710 - XW013

CD07-0304

September 14, 2007

Mr. Scott Moore, Deputy Director  
 Office of International Programs  
 U.S. Nuclear Regulatory Commission  
 Mail Stop O4E21  
 11555 Rockville Pike  
 Rockville, MD 20852

Subject: Applications for  
 1) Specific License to Import Radioactive Material (from Italy)  
 2) Specific License to Export Radioactive Material (to Italy)

Dear Mr. Moore:

EnergySolutions requests a specific license to import potentially radioactively contaminated material from Italy to our licensed disposal facility in Clive, Utah. In conjunction with the request for import authorization, we are also requesting a specific license for return shipment, to the extent necessary, back to Italy.

This license is a generic license to allow the importation of up to 20,000 tons of radioactively contaminated material including metals, graphite, dry activity material such as wood, paper, and plastic, ion exchange resins, and liquids such as aqueous and organic based fluids. The sources of this material are not fully known as of the date of this application but will be limited to Italian facilities authorized to use and possess radioactive material such as reactors, fuel cycle facilities, research facilities, and material licensees or facilities equivalent to US Superfund sites. It is expected that the material to be imported would be generated during various activities such as remediation, decontamination, decommissioning, maintenance, equipment upgrades, and routine operational activities. Some of the material to be imported may be free from contamination, some may only be superficially contaminated, and some may be volumetrically contaminated.

The purpose of the import license is to import contaminated material for disposal at our Utah facility. Intermediate uses include inspections, surveys, sorting, and stabilization (as required) at our licensed Tennessee facilities. The purpose of the export license is to allow Italian waste that cannot be disposed in Utah to be exported back to Italy.

The Form 7 applications, including our referenced facility licenses, are attached. ~~We assume NRC will appropriately delete possession limit information in the interest of materials security prior to making these documents publicly available. In addition, we request that specific facility addresses and personal contact information (Form 7 continuation pages) be deleted prior to releasing these pages for review by the public.~~ We have enclosed a check in the amount of \$19,600 to address the fees for two applications specified in 10 CFR 170.31, Category 15 B., assuming Executive Branch, but not Commission review, is required for each application.

Rec'd 9/17/07  
 RB



If you have any questions or need additional information, please do not hesitate to call me at 801-549-2000.

Sincerely,

A handwritten signature in cursive script that reads "Tye Rogers".

Tye Rogers  
Senior Vice President, Regulatory Affairs  
EnergySolutions

Attachments:

(2) Copies Mr. Moore

- 1) Import Application (Form 7)
- 2) Export Application (Form 7)
- 3) Letter from Utah Division of Radiation Control (CD)
- 4) Licenses (CD)
- 5) Application fee check

cc: Mr. Paul MacMurdy, USNRC OIP (1) copy

Rec'd 9-17-07  
PB

NRC FORM 7  
(E-2005)  
10 CFR 110

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0027

EXPIRES: 06/30/2005

**APPLICATION FOR NRC EXPORT/IMPORT  
LICENSE, AMENDMENT, OR RENEWAL**

(See Instructions on Page 5)

Estimated burden per response to comply with this mandatory collection request: 2.4 hours. This submittal is reviewed to ensure that the applicable statutory, regulatory, and policy considerations are satisfied. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [infocollect@nrc.gov](mailto:infocollect@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOS-10202, (3150-0027), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

**PART A. FOR NRC USE ONLY**

PUBLIC OR  NON-PUBLIC

DATE RECEIVED: **9-17-07**

LICENSE NUMBER: **1W023**

DOCKET NUMBER: **11005-711**

ADAMS ACCESSION NUMBER

**PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, OR RENEWALS**

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

1. NAME AND ADDRESS OF APPLICANT/LICENSEE

EnergySolutions  
423 West 300 South  
Suite 200  
Salt Lake City, Utah 84101

1a. NAME OF APPLICANT'S CONTACT

Mark Ledoux

1b. APPLICANT'S REFERENCE NUMBER

IT-IM-2007-09

1c. PHONE NUMBER

801 649-2152

1d. FAX NUMBER

801 413 5646

1e. E-MAIL ADDRESS

[mledoux@energysolutions.com](mailto:mledoux@energysolutions.com)

2. TYPE OF NRC LICENSE REQUESTED (Check One)

EXPORT

(Parts B, C, E)

IMPORT

(Parts B, D, E)

COMBINED EXPORT/IMPORT

(Parts B, C, D, E)

AMENDMENT/RENEWAL

Existing License Number:

3. CONTRACT NUMBER(S)

-----Not yet issued-----

4. FIRST SHIPMENT DATE

Estimate: spring of 2008

5. LAST SHIPMENT DATE

Not yet determined

6. PROPOSED EXPIRATION DATE

A 5 year license term is requested

**PART C. TO BE COMPLETED FOR EXPORT ONLY OR COMBINED LICENSES, AMENDMENTS, OR RENEWALS**

(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

7. NAME(S) / ADDRESS(ES) OF SUPPLIERS  
AND/OR OTHER PARTIES TO THE EXPORT

N/A - separate Form 7 filed for export

8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE  
FOREIGN CONSIGNEE(S)

---NONE---

9. NAME(S) / ADDRESS(ES) OF ULTIMATE  
FOREIGN CONSIGNEE(S)

N/A

7a. LIST FUNCTIONS PERFORMED/SERVICE PROVIDED

N/A

8a. INTERMEDIATE USE(S)

---NONE---

9a. ULTIMATE END USE(S)

N/A

10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES,  
NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS

N/A - separate Form 7 filed for export

10a. MAX TOTAL VOLUME/  
ELEMENT WGT (KG), OR  
TOTAL ACTIVITY (TBq)

N/A

10b. MAX ENRICHMENT  
OR WGT %

N/A

10c. MAX ISOTOPE  
WGT (KG)

N/A

11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)

-----None-----

*Rec'd 9-17-07  
RB*

NRC FORM 7  
(6-2005)  
10 CFR 110

U.S. NUCLEAR REGULATORY COMMISSION

APPLICATION FOR NRC EXPORT/IMPORT  
LICENSE, AMENDMENT, OR RENEWAL (Continued)

LICENSE NUMBER 230023 DOCKET NUMBER 11005711 ADAMS ACCESSION NUMBER           PUBLIC OR  NON-PUBLIC

PART D. TO BE COMPLETED FOR IMPORT ONLY, OR COMBINED LICENSES, AMENDMENTS, OR RENEWALS  
(If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

12. NAME(S) / ADDRESS(ES) OF FOREIGN SUPPLIERS AND/OR OTHER PARTIES TO IMPORT  
Sogin  
Societa Gestione Impianti Nucleari  
Via Troino, 6 - 00184 Roma  
  
Individual facilities authorized to possess radioactive materials are list on the attached page.

13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE CONSIGNEE(S)  
EnergySolutions' U.S. licensed processing facilities:  
EnergySolutions      EnergySolutions  
1560 Bear Creek Rd      628 Gallaher Rd  
Oak Ridge, TN 37831      Kingston, TN 37763  
  
EnergySolutions  
1790 Dock Street  
Memphis, TN 38113

14. NAME(S) / ADDRESS(ES) OF ULTIMATE CONSIGNEE(S)  
EnergySolutions  
423 West 300 South, Suite 200  
Salt Lake City, UT 84101  
  
The disposal facility is located in Section 32 of Township 1 South and Range 11 West, Tooele County, Utah.

12a. NRC EXPORT LICENSE NUMBER(S) (If applicable)  
Not applicable.

13a. LICENSE NUMBER(S) / EXPIRATION DATE(S)  
R-73008-C14 TN RML, exp 3/31/2014  
R-73016-A15 TN RML, exp 1/31/2015  
R-73006-F13 TN RML, exp 6/30/2013  
R-79171-L16 TN RML, exp 12/31/2016  
  
13b. INTERMEDIATE USE(S)  
Inspection, sorting, cutting, sizing, processing in accordance with applicable Tennessee licenses and permits, as amended. Waste disposal from these operations will be conducted in accordance with applicable waste attribution models established under these licenses. Nonconforming materials identified at intermediate facilities may be returned to the original generator.

14a. LICENSE NUMBER(S) / EXPIRATION DATE(S)  
UT 2300249, Utah Radioactive Materials license (timely renewal)  
UT 2300478, Utah By-product (11e.2) Materials license (timely renewal)  
  
14b. INTERMEDIATE USE(S)  
None

15. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES  
This is a request for a generic license to allow the importation of up to approximately 20,000 tons of radioactively contaminated material including metals, graphite waste, dry activity material such as wood, paper, and plastic, liquids such as aqueous and organic based fluids, ion exchange resins (treated and untreated) primarily for processing and/or disposal in accordance with EnergySolutions' existing Utah disposal license. Total volume is estimated to be approximately 1,000,000 cubic feet (assuming a nominal density of 40 pounds per cubic foot)

15a. MAX TOTAL VOLUME/ ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)  
Atomic numbers #3 - 83:  
to 200 TBq,  
  
tritium: to 400 TBq,  
  
U-nat & Depleted U: to 20 TBq (or approx 1.0+6 kg of source material),  
  
Transuranics (except Pu):  
to 20 TBq,  
  
SNM (U and Pu) to 3.5 kilograms, <sup>235</sup>U-equivalent (e.g. 1 g Pu = 1.75 g <sup>235</sup>U)

15b. MAX ENRICHMENT OR WGT %  
Enriched uranium will not exceed 5% <sup>235</sup>U, by weight,

15c. MAX ISOTOPE WGT (KG)  
5 kilograms <sup>235</sup>U-equivalent special nuclear material over the life of the license.

16. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)  
None

PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, OR RENEWALS

17. ADDITIONAL INFORMATION PROVIDED ON PAGES 3, 4, AND/OR ON SEPARATE SHEETS?  YES  NO

17a. COPIES OF RECIPIENTS' AUTHORIZATIONS PROVIDED?  YES  NO

18. CERTIFICATION: I, the applicant's authorized official, hereby certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, and that all information provided is correct to the best of my knowledge.

18a. PRINT NAME AND TITLE OF AUTHORIZED OFFICIAL  
Tye Rogers VP Compliance

18b. SIGNATURE - AUTHORIZED OFFICIAL  
Tye Rogers

18c. DATE  
9/14/07

*Permitting*

*Rec'd 9-17-07  
FB*

APPLICATION FOR NRC EXPORT/IMPORT  
LICENSE, AMENDMENT, OR RENEWAL (Continued)

LICENSE NUMBER <u>10033</u>	DOCKET NUMBER <u>11005711</u>	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
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ADDITIONAL INFORMATION (Reference applicable block numbers from page 1 and/or page 2 for each entry)

Items 12 - Foreign suppliers

TRINO PWR - 260 MWe Westinghouse design Operation start 1964 Shutdown 1987	Trino Power Station Strada Statale 31/bis 13039 Trino (VC)	Davide Galli phone +39 0161 827250 fax +39 0161 805275 email <a href="mailto:galli@sogin.it">galli@sogin.it</a>
CAORSO BWR - 860 MWe AMN-GETSCO Operation start 1978 Shutdown 1986	Caorso Power Station Via E. Fermi 5/A 29012 Caorso (PC)	Renzo Guerzoni phone +39 0523 818306 fax +39 0523 818469 email <a href="mailto:guerzoni@sogin.it">guerzoni@sogin.it</a>
GARIGLIANO BWR - 150 MWe G.E design Operation start 1964 Shutdown 1978	Garigliano Power Station Via Appia, km 160 + 400 81037 S Venditto - Sessa Aurunca (CE)	Severino Alfieri phone +39 0823 055900 fax +39 0823 055934 email <a href="mailto:alfieri@sogin.it">alfieri@sogin.it</a>
LATINA Gas-Graphite - 153 MWe TNPG design Operation start 1963 Shutdown 1986	Latina Power Station Via Macchiagrande, 6 04010 Borgo Sabotino (LT)	Emilio Macchi Phone +39 0773 647201 fax +39 0773 648455 email <a href="mailto:macci@sogin.it">macci@sogin.it</a>
Saluggia fuel research fuel fabrication (undergoing decommissioning)	Saluggia Facility Strada per Crescentino, snc 13040 Saluggia (VC)	Michele Gili phone +39 0161 653385 fax +39 0161 653221 email <a href="mailto:gili@sogin.it">gili@sogin.it</a>
Bosco Marengo Commercial fuel fab facility (undergoing decommissioning)	Bosco Marengo Facility S.S. 35bis dei Giovi, km 15 15062 Bosco Marengo (AL)	Nicola Cantoro phone +39 0131 490223 fax +39 0131 490315 email <a href="mailto:cantoro@sogin.it">cantoro@sogin.it</a>
Casaccia Research including fuel fab (undergoing decommissioning)	Casaccia Research Center Via Anguillarese, 301 00060 Santa Maria di Galeria (RM)	Vittorio Santinelli phone +39 06 99819369 fax +39 06 99819759 Email <a href="mailto:santinelli@sogin.it">santinelli@sogin.it</a>
Trisaia Pilot fuel processing plant (undergoing decommissioning)	Trisaia Facility S.S. 106 Ionica, km 419 + 500 75026 Rotondella (MT)	Tommaso Candelieri phone +39 0835 803221 fax +39 0835 803365

Rec'd 9-17-07  
PB

APPLICATION FOR NRC EXPORT/IMPORT  
LICENSE, AMENDMENT, OR RENEWAL (Continued)

LICENSE NUMBER <i>100033</i>	DOCKET NUMBER <i>1005-11</i>	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
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Item 15 - Description of Radioactive Materials, Sealed Sources, Nuclear Facilities.

Waste to be imported includes operational wastes (resins, filters, miscellaneous Dry Active Wastes (DAW), metals, graphite, sludges) and large components from commercial power reactor and fuel cycle facility decommissioning projects. Metallic wastes may include pressure vessels (steam generators, pressurizers, demineralizers), structural steel, and associated piping and contaminated construction and demolition debris. Scrapped components will be received as radioactive waste and not as reactor, fuel fabrication, or enrichment process equipment. No hazardous wastes (as defined by USEPA in 40 CFR 261.3) or mixed wastes (hazardous and radioactive) are included in the request.

The radioactive materials will be present in the expected waste streams primarily as solid metal oxides distributed as surface contamination, or as dissolved and suspended solids in a liquid matrix (e.g., decontamination solutions, lubricating oils). Some activated materials may also be included in the waste stream. The overall radionuclide composition will include source material, byproduct material, and special nuclear material. Radioactive material content of each shipment will be subject to review and approval prior to shipment to our Tennessee facilities to ensure possession limits are not exceeded.

The generators of these materials are not fully known as of the date of this application but will be limited to Italian facilities authorized by the Italian regulator to use and possess radioactive material such as reactors, fuel cycle facilities, and material licensees or facilities equivalent to US Superfund sites. It is expected that the material to be imported would be generated during various activities such as routine operations (e.g., laboratory and maintenance), remediation, decontamination, and decommissioning.

The Imported material cannot be evaluated for Waste Class (as defined in 10 CFR 61.55) until it has been inspected and appropriate processing work has been completed (e.g., dewatering, solidification, incineration) as the processing work will likely affect the final waste form and Waste Class. Only Class A wastes, as defined in 10 CFR 61.55 and specified by our Utah radioactive materials license will be disposed in Clive. Wastes approved by EnergySolutions for processing will meet Class A requirements following completion of processing. In the unlikely event final waste forms exceed Class A limits and cannot be disposed domestically, they will be returned to the generator under the associated export license.

Most materials will be shipped by truck from the generators' sites in Italy to a suitable port in Italy for subsequent transport by ocean-going vessel to the Ports of Charleston or New Orleans) where it will again be transferred by truck, barge, or rail to the EnergySolutions' Tennessee facilities. Individual shipments will comply with the packaging, labeling, and marking requirements of TS-R-1, Regulations for the Safe Transport of Radioactive Material (IAEA, 2000) or the International Maritime Dangerous Goods Code (IMDG Code), as applicable. No shipments containing Highway Route Controlled quantities of radioactive material are anticipated. Appropriate notifications will be made and controls implemented for shipments that exceed the threshold for Appendix P, Category 2 quantities. Authorization to import quantities of radionuclides that exceed the threshold for Category 1 shipments is not requested at this time.

Processing

At present, many of the waste streams in Italy require additional processing for stabilization prior to long-term storage or shipment to disposal. The combined capabilities of EnergySolutions' Utah and Tennessee facilities are unique and can produce safe, stable waste forms. Examples include incineration, induction melting, decontamination, size reduction, repackaging, and recycling of metals, and advanced resin dewatering techniques. Processing will involve one or more of the following steps:

- a) Imported material will be removed from shipping containers and inspected for items unacceptable for processing at the Tennessee facilities or disposal at the Clive, Utah site. Items with no treatment/disposal options will be returned to the generator (under the export license also requested in this application).
- b) Material will be sorted and surveyed. Material that is not contaminated (i.e., meeting license conditions for unrestricted release) may be released for unrestricted use or otherwise dispositioned in accordance with processes authorized under EnergySolutions' radioactive materials licenses.
- e) Dry, active wastes (DAW) and liquids may also be incinerated for the energy value, used for cooling purposes, or processed for recycling through EnergySolutions' metal melter and fabricated into products for beneficial reuse.
- e) Resins and sludges may be dewatered (e.g., vacuum extraction) or dried to meet disposal site criteria.

Waste

Following inspection and appropriate processing activities, waste materials meeting the Clive disposal Waste Acceptance Criteria will be disposed at Clive, Utah, as customer waste. This is acceptable to the Utah site regulator, (see attached letter).

Residual radioactive material from processing the imported material such as floor sweepings, boilies, slag, ash, decontaminated solution and abrasives, etc that is attributable to EnergySolutions under its Tennessee license, as amended from time to time will be disposed of in accordance with EnergySolutions' procedures and applicable license conditions and permits. Such waste is normally disposed of at Clive, Utah.

Shipments to Clive, Utah, will be by rail or truck, as appropriate for the materials and containers.

*Rec'd  
9-17-07 RB*

NRC FORM 7 (5-2006) 10 CFR 110		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB: NO. 3150-0027		EXPIRES: 06/30/2009	
APPLICATION FOR NRC EXPORT/IMPORT LICENSE, AMENDMENT, OR RENEWAL  (See Instructions on Page 5)				Estimated burden per response to comply with this mandatory collection request: 2-4 hours. This submittal is reviewed to ensure that the applicable statutory, regulatory, and policy considerations are satisfied. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F32), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet: e-mail to infocprts@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOE-10202, (3150-0027), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.			
PART A. FOR NRC USE ONLY		<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC		DATE RECEIVED <b>9-17-07</b>			
LICENSE NUMBER <b>XW013</b>		DOCKET NUMBER <b>11005-710</b>		ADAMS ACCESSION NUMBER			
PART B. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, OR RENEWALS (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)							
1. NAME AND ADDRESS OF APPLICANT/LICENSEE EnergySolutions 423 West 300 South Suite 200 Salt Lake City, Utah 84101			1a. NAME OF APPLICANT'S CONTACT Mark Ledoux		1b. APPLICANT'S REFERENCE NUMBER IT-X-2007-09		
			1c. PHONE NUMBER 801 649-2152		1d. FAX NUMBER 801 413 5646		
			1e. E-MAIL ADDRESS mledoux@energysolutions.com				
2. TYPE OF NRC LICENSE REQUESTED (Check One) <input checked="" type="checkbox"/> EXPORT (Parts B, C, E) <input type="checkbox"/> IMPORT (Parts B, D, E) <input type="checkbox"/> COMBINED EXPORT/IMPORT (Parts B, C, D, E) <input type="checkbox"/> AMENDMENT/RENEWAL Existing License Number:							
3. CONTRACT NUMBER(S) -----Not yet issued-----		4. FIRST SHIPMENT DATE Estimate: mid 2008		5. LAST SHIPMENT DATE Up to 1 yr following termination of the associated import license requested		6. PROPOSED EXPIRATION DATE 1 yr following expiration of the requested import license, application reference # IT-IM-2007-09	
PART C. TO BE COMPLETED FOR EXPORT ONLY OR COMBINED LICENSES, AMENDMENTS, OR RENEWALS (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)							
7. NAME(S) / ADDRESS(ES) OF SUPPLIERS AND/OR OTHER PARTIES TO THE EXPORT EnergySolutions 423 West 300 South Suite 200 Salt Lake City, Utah 84101  <u>EnergySolutions' U.S. licensed processing facilities:</u> EnergySolutions    EnergySolutions 1560 Bear Creek Rd    628 Gallaher Rd Oak Ridge, TN 37831    Kingston, TN 37763  EnergySolutions 1790 Dock Street Memphis, TN 38113			8. NAME(S) / ADDRESS(ES) OF INTERMEDIATE FOREIGN CONSIGNEE(S) -----NONE-----			9. NAME(S) / ADDRESS(ES) OF ULTIMATE FOREIGN CONSIGNEE(S) Sogin Societa Gestione Impianti Nucleari Via Troino, 6 - 00184 Roma  Individual facilities authorized to possess radioactive materials are listed on the attached page.	
7a. LIST FUNCTIONS PERFORMED/SERVICE PROVIDED Packaging for transport in accordance with applicable requirements			8a. INTERMEDIATE USE(S) -----NONE-----			9a. ULTIMATE END USE(S) Export authorization is requested as a contingency for return of non-conforming waste.	
10. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES, EQUIPMENT, OR COMPONENTS  The requested export license is being sought to provide a contingency for the return of material imported under the associated import license in the unlikely event that it cannot be dispositioned under the EnergySolutions' Utah and Tennessee radioactive materials licenses (as amended). At this time it is not possible to estimate the quantities, volume, and activity of the materials that will need to be exported. It will be a very small fraction of the quantities which are specified in the associated import application. See continuation page.				10a. MAX TOTAL VOLUME/ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)  The physical mass, volume, and activity values are approximately 10% of the values used in the corresponding import application.		10b. MAX ENRICHMENT OR WGT %  Enriched Uranium is not expected to exceed 5% <sup>235</sup> U by weight.	10c. MAX ISOTOPE WGT (KG)  Exports will be less than 5 kg <sup>235</sup> U over the proposed life of the license.
11. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME) -----None-----							

Rec'd 9-17-07  
RB

APPLICATION FOR NRC EXPORT/IMPORT  
 LICENSE, AMENDMENT, OR RENEWAL (Continued)

LICENSE NUMBER <i>XW013</i>	DOCKET NUMBER <i>11005-710</i>	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
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PART D. TO BE COMPLETED FOR IMPORT ONLY, OR COMBINED LICENSES, AMENDMENTS, OR RENEWALS  
 (If more space is needed to complete any of the items, use Pages 3-4 first, and then attach additional sheets, if necessary.)

12. NAME(S) / ADDRESS(ES) OF FOREIGN SUPPLIERS AND/OR OTHER PARTIES TO IMPORT Sogin Societa Gestione Impianti Nucleari Via Troino, 6 - 00184 Roma  Individual facilities authorized to possess radioactive materials are list on the attached page.	13. NAME(S) / ADDRESS(ES) OF INTERMEDIATE CONSIGNEE(S) <u>EnergySolutions' U.S. licensed processing facilities.</u> EnergySolutions 1560 Bear Creek Rd Oak Ridge, TN 37931  EnergySolutions 1790 Dock Street Memphis, TN 38113	14. NAME(S) / ADDRESS(ES) OF ULTIMATE CONSIGNEE(S) EnergySolutions 423 West 300 South, Suite 200 Salt Lake City, UT 84101  The disposal facility is located in Section 32 of Township 1 South and Range 11 West, Toosle County, Utah.
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12a. NRC EXPORT LICENSE NUMBER(S) (if applicable)  Not applicable.	13a. LICENSE NUMBER(S) / EXPIRATION DATE(S) R-73008-C14 TN RML, exp 3/31/2014 R-73016-A15 TN RML, exp 1/31/2015 R-73006-F13 TN RML, exp 6/30/2013 R-79171-L16 TN RML, exp 12/31/2016	14a. LICENSE NUMBER(S) / EXPIRATION DATE(S) UT 2300249, Utah Radioactive Materials license (timely renewal) UT 2300478, Utah By-product (11e.2) Materials license (timely renewal)
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13b. INTERMEDIATE USE(S) Inspection, sorting, cutting, sizing, processing in accordance with applicable Tennessee licenses and permits. Waste disposal from these operations will be conducted in accordance with applicable waste attribution models established under these licenses. Nonconforming materials identified at intermediate facilities may be returned to the original generator.	14b. INTERMEDIATE USE(S)  None
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15. DESCRIPTION OF RADIOACTIVE MATERIALS, SEALED SOURCES, NUCLEAR FACILITIES  Not applicable to export	15a. MAX TOTAL VOLUME/ ELEMENT WGT (KG), OR TOTAL ACTIVITY (TBq)  Not applicable to export	15b. MAX. ENRICHMENT OR WGT %  Not applicable to export	15c. MAX. ISOTOPE WGT (KG)  Not applicable to export
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16. FOREIGN OBLIGATIONS (BY COUNTRY AND BY PERCENTAGE OF MAXIMUM TOTAL VOLUME)  
 -----None-----

PART E. TO BE COMPLETED FOR ALL LICENSES, AMENDMENTS, OR RENEWALS

17. ADDITIONAL INFORMATION PROVIDED ON PAGES 3, 4, AND/OR ON SEPARATE SHEETS?  <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	17a. COPIES OF RECIPIENTS' AUTHORIZATIONS PROVIDED?  <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
--	--

18. CERTIFICATION: I, the applicant's authorized official, hereby certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, and that all information provided is correct to the best of my knowledge.

18a. PRINT NAME AND TITLE OF AUTHORIZED OFFICIAL <i>Tye Roger VP Compliance Permitting</i>	18b. SIGNATURE - AUTHORIZED OFFICIAL <i>Tye Roger</i>	18c. DATE <i>9/14/07</i>
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*Rec'd 9-17-07  
 RB*

APPLICATION FOR NRC EXPORT/IMPORT  
LICENSE, AMENDMENT, OR RENEWAL (Continued)

LICENSE NUMBER <i>XW013</i>	DOCKET NUMBER <i>11005710</i>	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
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ADDITIONAL INFORMATION (Reference applicable block numbers from page 1 and/or page 2 for each entry)

Items 9 - Foreign Consignees

TRINO PWR - 260 MWe Westinghouse design Operation start 1964 Shutdown 1987	Trino Power Station Strada Statale 31/bis 13039 Trino (VC)	Davide Galli phone +39 0161 827250 fax +39 0161 805275 email <a href="mailto:galli@sogin.it">galli@sogin.it</a>
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CAORSO BWR - 860 MWe AMN-GETSCO Operation start 1978 Shutdown 1986	Caorso Power Station Via E. Fermi 5/A 29012 Caorso (PC)	Renzo Guerzoni phone +39 0523 818306 fax +39 0523 818469 email <a href="mailto:guerzoni@sogin.it">guerzoni@sogin.it</a>
--	---	--

GARIGLIANO BWR - 150 MWe G.E design Operation start 1964 Shutdown 1978	Garigliano Power Station Via Appia, km 160 + 400 81037 S Venditto - Sessa Aurunca (CE)	Severino Alfieri phone + 39 0823 055900 fax +39 0823 055934 email <a href="mailto:alfieri@sogin.it">alfieri@sogin.it</a>
--	--	---

LATINA Gas-Graphite - 153 MWe TNP design Operation start 1963 Shutdown 1986	Latina Power Station Via Macchiagrande, 6 04010 Borgo Sabotino (LT)	Emilio Macci Phone +39 0773 647201 fax +39 0773 648455 email <a href="mailto:macci@sogin.it">macci@sogin.it</a>
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Saluggia fuel research fuel fabrication (undergoing decommissioning)	Saluggia Facility Strada per Crescentino, snc 13040 Saluggia (VC)	Michele Gili phone +39 0161 653385 fax +39 0161 653221 email <a href="mailto:gili@sogin.it">gili@sogin.it</a>
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Bosco Marengo Commercial fuel fab facility (undergoing decommissioning)	Bosco Marengo Facility S.S. 35bis dei Giovi, km 15 15062 Bosco Marengo (AL)	Nicola Cantoro phone +39 0131 490223 fax +39 0131 490315 email <a href="mailto:cantoro@sogin.it">cantoro@sogin.it</a>
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Casaccia Research including fuel fab (undergoing decommissioning)	Casaccia Research Center Via Anguillarese, 301 00060 Santa Maria di Galeria (RM)	Vittorio Santinelli phone +39 06 99819369 fax +39 06 99819759 Email <a href="mailto:santinelli@sogin.it">santinelli@sogin.it</a>
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Trisaia Pilot fuel processing plant (undergoing decommissioning)	Trisaia Facility S.S. 106 Ionica, km 419 + 500 75026 Rotondella (MT)	Tommaso Candelieri phone +39 0835 803221 fax +39 0835 803365
--	--	--

Item 10 - Description of Radioactive Materials, Sealed Sources, Nuclear Facilities, Equipment or Components

EnergySolutions understands that an export license is a requirement for issuance of an import license authorizing receipt of radioactive wastes. This application is submitted in conjunction with an application for an import license for the same facilities (as EnergySolutions' reference # IT-IM-2007-09). We are requesting a generic license to allow the return export of up to approximately 1,000 tons of radioactively contaminated waste material including metals, dry activity material such as wood, paper, and plastic, liquids such as aqueous and organic based fluids, ion exchange resins (treated and untreated). Total volume will not exceed 100,000 cubic feet (assuming a nominal density of 40 pounds per cubic foot). Although not directly applicable to handling in Italy, returned wastes will be classified in accordance with guidance from Part 61 of Title 10.

*Rec'd 9-17-07*  
*FB*

APPLICATION FOR NRC EXPORT/IMPORT  
LICENSE, AMENDMENT, OR RENEWAL (Continued)

LICENSE NUMBER <i>YU013</i>	DOCKET NUMBER <i>11005-710</i>	ADAMS ACCESSION NUMBER	<input checked="" type="checkbox"/> PUBLIC OR <input type="checkbox"/> NON-PUBLIC
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ADDITIONAL INFORMATION (Reference applicable block numbers from page 1 and/or page 2 for each entry)

Item 10, continued

To minimize the potential for return shipments, waste descriptions and data for all candidate wastes will be carefully reviewed by a multi-disciplinary team to ensure compliance with the applicable acceptance criteria of our Tennessee and Utah facilities. Each shipment will be subject to individual review and approval prior to EnergySolutions authorizing import to our facilities.

Maximum activity requested for export is nominally 10% of the activity requested for import in application IT-IM-2007-09 as follows:

1	Atomic numbers #3 - 83	$\leq 20$ TBq,
2	tritium	$\leq 40$ TBq,
3	U-nat & Depleted U:	$\leq 2$ TBq (or approx 1.0+5 kg of source material)
4	Transuranics (except Pu):	$\leq 2$ TBq,
5	SNM (U and Pu)	$\leq 0.35$ kilograms, $^{235}\text{U}$ -equivalent (e.g. 1 g Pu = 1.75 g $^{235}\text{U}$ )

Rec'd 9-17-07  
PB



December 5, 2007

CD07-0383

Mr. Stephen Dembek  
Office of International Programs  
U.S. Nuclear Regulatory Commission  
Mail Stop O4E21  
11555 Rockville Pike  
Rockville, MD 20852

Subject: Response to NRC request for additional information dated November 29, 2007

Dear Mr. Dembek:

In a letter dated November 29, 2007, the U.S. Nuclear Regulatory Commission (NRC) requested additional information regarding EnergySolutions' import/export license application dated September 14, 2007. The following letter provides the information requested.

#### **NRC Question 1**

Although the application for the import license indicates that "No hazardous wastes (as defined by USEPA in 40 CFR 261.3) or mixed wastes (hazardous and radioactive) are included in the request," it also indicates that generators could include "facilities equivalent to US Superfund sites." Please identify which of the sites listed are "equivalent to US Superfund sites" and how you will ensure that no hazardous or mixed wastes will be included.

#### **EnergySolutions Response**

The following sites may be comparable to Superfund sites:

- Saluggia fuel research facility
- Casaccia research facility
- Trisaia pilot fuel reprocessing facility

Before any of the material leaves the host country EnergySolutions would ensure that all of the imported waste will meet the processing and disposition requirements of its licensed facilities in Tennessee and Utah by subjecting the material to extensive waste characterization at the generator site. Our waste acceptance guidance documents have been provided to the customer to clearly communicate acceptable waste forms and activity levels. We have reviewed the extensive characterization data available and have taken the additional step to have sample analyses performed at a U.S. laboratory. EnergySolutions will have qualified personnel on-site working with the customer on characterization, packaging, and inspection at the generator site to ensure that all wastes

imported to the United States meet the requirements of the import license and our licenses for the Bear Creek and Clive facilities. In addition, all material will be packaged and shipped in accordance with the IAEA and U.S. DOT shipping requirements and the NUREG/BR-0204 manifesting guidance.

### **NRC Question 2**

The import application also states "Radioactive material content of each shipment will be subject to review and approval prior to shipment to our Tennessee facilities to ensure possession limits are not exceeded." According to the export application "To minimize the potential for return shipments, waste descriptions and data for all candidate wastes will be carefully reviewed by a multi-disciplinary team to ensure compliance with the applicable acceptance criteria of our Tennessee and Utah facilities. Each shipment will be subject to individual review and approval prior to EnergySolutions authorizing import to our facilities."

Will EnergySolutions employees from Tennessee be part of the multi-disciplinary team that will review and approve the radioactive material content of each shipment? What methods will be employed to review, approve and document the contents of each prospective shipment from Italy to the U.S.? The applicant should describe in detail the process by which the determinations required in 10 CFR 110.32 (c) (5) and (6) will be made prior to radioactive waste leaving Italy in order to ensure a very high probability that the waste can ultimately be disposed of in the U.S. Particular attention should be paid to the waste classification requirements in 10 CFR 61.55 because of uncertainties related to future disposal of Class B and C waste.

### **EnergySolutions Response**

Yes, EnergySolutions employees from Tennessee and Utah will participate in characterizing the material in Italy and will ensure that all of the imported material will meet the license requirements at Bear Creek and Clive. Therefore, none of the imported material will have to be returned to Italy. Attachment 1 provides the procedures that will be followed during these activities.

### **NRC Question 3**

Will most or all material from Italy be shipped directly to one of the Tennessee facilities for inspection, etc? Will any be shipped directly to the Utah facility, and if so, how much (volume and physical/chemical form and waste class)?

**EnergySolutions Response**

All material will be inspected in Italy before importation into the United States and will be transported to the Bear Creek facility in Tennessee. None of the material will be transported directly to the Clive, Utah facility nor will any of the material be dispositioned at the Barnwell facility.

**NRC Question 4**

“Wastes approved by EnergySolutions for processing will meet Class A requirements following completion of processing. In the unlikely event final waste forms exceed Class A limits and cannot be disposed domestically, they will be returned to the generator under the associated export license.” This statement seems to imply that EnergySolutions has the capacity to process most waste from reactor operations which often are classified as Class B and C waste to Class A. If this is the intent, please describe the processes and impacts on waste volume that will be employed for the operational waste (e.g. resins and filter cartridges) with a high probability of originally being classified as higher than Class A.

Although the export license application was filed for contingency purposes, do the foregoing statements mean that Class B and C and possibly Greater Than Class C wastes, which cannot be processed at one of the Tennessee sites to meet Class A requirements, will all be returned from Tennessee only to the generator or is it possible that any such material will be shipped from the Utah facility back to the generator? Is there a possibility that Class B, C and Greater Than Class C wastes will be processed at the Tennessee facilities and returned to Italy in “a more stable waste form?”

**EnergySolutions Response**

EnergySolutions cannot process “most waste from reactor operations ....classified as Class B or Class C waste”. Using routine process controls to limit final ash container dose rates, we can meter flowable Class B or C materials, such as carbon slurry, into the incinerator with the resultant ash being Class A material. EnergySolutions follows the NRC Branch Technical Position on Concentration Averaging for evaluation of final waste forms.

We will thoroughly inspect and characterize the waste in Italy to ensure that all wastes entering into the U.S. meet the requirements of the Bear Creek and Clive facility licenses. No Class B, Class C or GTCC materials will be shipped to Utah. Since all of the imported material will meet our licenses either at Bear Creek or Clive, none of the material will need to be returned to Italy.

**NRC Question 5**

"No shipments containing Highway Route Controlled quantities of radioactive material are anticipated." Who and how will you ensure that there will be no such shipments and what will happen if there are?

**EnergySolutions Response**

Our on-site characterization in Italy will preclude such material from being imported and therefore there will be no shipments containing HRC quantities.

**NRC Question 6**

The statement "Appropriate notifications will be made and controls implemented for shipments that exceed the threshold for Appendix P Category 2 quantities". This seems to imply that ES is anticipating such shipments. If so, please provide assurance that all applicable parties meet the requirements of 10 CFR 110.45 (c)(1).

**EnergySolutions Response**

The characterization work that will be performed in Italy should ensure that we do not receive any Category 2 shipments. However, in the very unlikely event that one is imported, we will follow established procedures and regulatory requirements.

**NRC Question 7**

"Following inspection and appropriate processing activities, waste materials meeting Clive disposal Waste Acceptance Criteria will be disposed at Clive, Utah as customer waste." What is "customer waste?" Further, please indicate the disposition pathway of all waste that does not meet the Clive WAC.

**EnergySolutions Response**

Customer waste is attributable, for purposes of disposal tracking, to the original generator.

All material imported from Italy will either be recycled, incinerated or otherwise processed using U.S. technology at the Bear Creek, TN facility. Only a small fraction of the material imported will be disposed in the U.S. Approximately 33% (by weight) of the material will be recycled. This material is primarily metal that will be melted and formed into shield blocks which will be sold and used throughout the nuclear industry. Approximately 67% (by weight) will be processed at Bear Creek. Only about 8% (by

volume) of the total imported material is estimated to be disposed of at the Clive, Utah facility.

#### **NRC Question 8**

“You propose to import up to 20,000 tons or approximately 1,000,000 cubic feet (assuming a nominal density of 40 pounds per cubic foot) of material contaminated with varying quantities, types and combinations of source, special nuclear and byproduct materials.” Please estimate the maximum total mass and volume of material and the relevant physical and chemical characteristics of the radioactive contaminants that will be disposed of as customer waste.

#### **EnergySolutions Response**

Following is an estimated distribution of materials we expect to receive. All shipments will be conservatively manifested, packaged and shipped to ensure that only materials authorized under our Tennessee and Utah radioactive materials licenses will be imported and received at these facilities. We will conform to applicable IAEA and USDOT shipping requirements, and the NUREG/BR-0204 manifesting guidance. As stated earlier, all materials will be routed through our Bear Creek facility in Tennessee. Material forms are broadly described as metals, dry active waste (DAW) or liquids, as these are the principal physical considerations in packaging, handling, and processing. As these physical quantities are not routinely monitored or tracked, we do not intend these values to be restrictions on individual waste forms. In addition, the physical characteristics have no impact on worker or environmental health and safety. Total mass and radionuclide activity received will be closely monitored relative to authorized values to ensure authorized amounts are not exceeded.

Approximately 7,000 tons, or nominally one-third of the projected total mass to be imported, is expected to be metals. Although we intend to beneficially reuse most of the metals via our licensed shielding fabrication facility in Tennessee, we have included metal as a waste stream rather than importing it separately under the Part 110 General License provisions for the import of resource materials contaminated with incidental quantities of radioactive material (IRM). Radioactive contaminants are expected to be in form of solid metal oxides, principally byproduct material (fission and activation products) originating in light water and gas-cooled power reactor facilities undergoing decommissioning. This material is expected to contain nominally half of the byproduct materials projected in the license application, with only traces of source or special nuclear material (SNM). Structural steel, conduit, tanks, moderator metals, piping and valves are expected to comprise most of the metals. A small metals subset, not expected to exceed a few hundred tons, may originate from commercial fuel fabrication facilities undergoing decommissioning. These metals are expected to contain source material and/or low-enriched uranium and mixed oxide fuel contamination in the form of metal oxides or

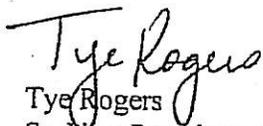
contamination from fired ceramic material. These fuel facility metals are expected to account for a significant fraction of the source material and SNM activity requested in section 15 of the submitted USNRC Form 7, blocks 15a – 15c. Note that in no case will operable reactor components or fuel fabrication equipment be imported for use or transfer for use. The total volume of metals shipped from Italy is expected to be about 200,000 to 300,000 ft<sup>3</sup>.

DAW is expected to account for 5,000 tons of the requested 20,000 tons. This material will include cotton rags and personal protective clothing (PPE), ventilation filters, paper, plastic, wood, and ion exchange resins. This material is expected to account for up to one-half of the requested byproduct material activity, again with only low levels of source material and SNM. The total volume of DAW shipped from Italy is expected to be about 300,000 to 400,000 ft<sup>3</sup>. Approximately 20% of the DAW is expected to originate from fuels-related facilities, and will contain low levels of uranium and mixed oxide fuel contamination in the form of metal oxides (no nitrates or reactive forms are anticipated).

Aqueous liquids, including water/resin mixtures, and organic liquids (primarily non-hazardous electro-hydraulic control fluid [EHC oil] and lubricating oils meeting acceptance criteria) are expected to make up the remainder of the mass to be received and will be primarily contaminated with byproduct material, again with traces of source material and SNM. These are also expected to originate primarily from power reactor facilities undergoing active decommissioning.

We appreciate the opportunity to respond to these questions. If you have any further questions regarding this matter, please contact me at (801) 649-2114.

Sincerely,



Tye Rogers  
Sr. Vice President, Regulatory Affairs

Attachment 1

cc: Brooke Smith and Carlotta Coates



CD08-0014

January 11, 2008

Mr. Stephen Dembek  
Office of International Programs  
U.S. Nuclear Regulatory Commission  
Mail Stop O4E21  
11555 Rockville Pike  
Rockville, MD 20852

Subject: Supplemental Request for Additional Information Regarding License  
Applications: IW023 & XW013

Dear Mr. Dembek

In a letter dated December 20, 2007, the Nuclear Regulatory Commission requested additional information (RAI) regarding EnergySolutions' license application IW023 and XW013. The following letter provides the additional information requested.

NRC Question 1:

In EnergySolutions' December 5, 2007 response to NRC's question 4, EnergySolutions states, "No Class B, Class C or GTCC materials will be shipped to Utah. Since all the imported material will meet our licenses either at Bear Creek or Clive, none of the material will need to be returned to Italy." This response would seem to imply the possibility of long-term storage of Class B, C and GTCC waste at Bear Creek. The possibility of long-term storage is mentioned in the original application as well (Item 15, page 4, Processing section). Please clarify, the type, amount and activity of waste (if any) that will require long-term storage.

EnergySolutions Response:

There will be no long-term storage of Class B, C or GTCC waste at the Bear Creek facility. Long-term storage is not authorized under our Tennessee Radioactive Materials Licenses. Before any material leaves Italy, EnergySolutions will subject it to an extensive waste characterization. EnergySolutions will ensure that all of the imported material will comply with its licenses at either Bear Creek or Clive. The material will be recycled, processed and/or disposed.

NRC Question 2:

In EnergySolutions' December 5, 2007 response to NRC's question 7, EnergySolutions states, "Only about 8% (by volume) of total imported material is estimated to be disposed of at the Clive, Utah facility." This statement appears to contradict a statement in Block 15 in the application that suggests the waste is imported "primarily for processing and/or

ENERGYSOLUTIONS

disposal in accordance with EnergySolutions existing Utah disposal license." Please address this apparent contradiction.

EnergySolutions Response:

The imported material will be processed primarily through incineration, volume reduction or other processing methods. A significant amount of the material will be recycled and formed into shield blocks to be reused in the nuclear industry. The remaining material, approximately 8% by volume, will be disposed of at the Clive, Utah facility. More details of the amounts and disposition pathways are provided in response to Question 6.

The initial license application was written to provide flexibility for EnergySolutions to determine the most efficient pathway during material management activities. In response to the NRC first RAI, estimated disposition pathways percentages were provided. These values were best estimates and are not a committed maximum.

NRC Question 3:

In EnergySolutions' December 5, 2007 response to NRC's question 8, EnergySolutions discusses the possible beneficial reuse of 7000 tons of metal as shielding material. EnergySolutions should provide some indication regarding the domestic market for the types and quantities of shielding that can be remanufactured from waste steel and moderator metals. Please identify any detailed information in the response to this request for which EnergySolutions requires confidentiality.

EnergySolutions Response:

The company's current customer for shield blocks is in Japan. The existing contract is to fabricate 500 shield blocks (approximately 10 tons each). The company has an option under the contract to provide up to 350 additional blocks. The company anticipates using imported material from Italy to fulfill this contract. In addition, the company is exploring opportunities domestically for the shield blocks and may use some of the shield blocks in-house.

NRC Question 4:

Throughout the original application and responses provided on December 5, 2007, there seems to be an implication that some waste that may otherwise be classified as class B or C can and will be processed to meet the Clive, Utah waste acceptance criteria (WAC). If this is the case, it suggests an increase in the volume of waste to be disposed of. Please clarify EnergySolutions intentions and likely volume impact regarding processing of Class B and C waste to meet the Clive WAC.



ENERGYSOLUTIONS

EnergySolutions Response:

EnergySolutions will receive and process the material in accordance with our Tennessee Radioactive Materials License. Processing at Bear Creek does not increase waste volumes and EnergySolutions will ensure that the material destined for disposal at Clive will meet the WAC.

The material that will be received at Bear Creek will be extensively characterized prior to its importation but not classified for disposal. Those materials destined for incineration and metal melting are not received in final form for disposal and therefore waste classification at this point in the process would be premature. Please refer to the March 27, 1995 Federal Register (page 15652) for discussion of manifesting to incineration facilities. Incinerator ash is arguably a new waste stream (a processor residual waste, as defined by specific licensing actions), as it is physically, chemically, and radiologically modified, relative to the input stream. The same considerations are applicable to slag and waste products resulting from metal melting activities.

Processing activities are performed in accordance with our Tennessee and Utah Radioactive Materials licenses. Routine operations at Bear Creek typically include adjusting mixtures of materials to achieve efficient processing. These adjustments include managing thermal properties (i.e.; BTU content) of feed material for incineration and blending of metals to achieve desired molten metal bath chemistry for metals casting work. We also meter higher activity materials into our processes along with lower activity materials to control secondary waste and cast product dose rates, with resultant control over radionuclide concentrations. Such processing does not increase waste volumes.

NRC Question 5:

The application and December 5, 2007 responses are fairly consistent in identifying three major waste streams: 7000 tons of metal, 5000 tons of DAW, and 8000 tons of liquid, or wet, waste. (An average density of 40 pounds per cubic foot is used to estimate volume although these three waste streams individually differ significantly from that average density.) The material also indicates three distinct disposition pathways for the waste: recycle/reuse, disposal, and long-term storage. With the exception of metals, it is less clear with regard to the approximate percentage of each waste stream that ends up in each disposition pathway. Please provide clarification as to the likely disposition pathway of each major waste stream.

EnergySolutions Response:

In our December 5, 2007 letter, we estimated that approximately 33%, by weight, of the material will be recycled. Approximately 67% of the material, by weight, (metals, graphite, resins, DAW and liquids) will be processed using incineration, drying processes (drying ovens), and compaction for dewatering and volume reduction at the Bear Creek facility and of that amount, approximately 8%, by volume, will be disposed at the Clive



facility (metals, graphite, resins and DAW). Further processing details are provided in response to Question 6. As stated in Question 2, these values were best estimates and are not a committed maximum.

#### NRC Question 6:

Please describe the disposition of all Italian waste, including that which normally would be ascribed to the Bear Creek facility after processing. There are some conventions used in waste processing whereby the identity of the original generator disappears during processing because the waste becomes commingled (during incineration, e.g.). Please estimate the amount and method of Italian waste that will be dispositioned, including that which would normally be ascribed to the Bear Creek facility.

#### EnergySolutions Response

The following provides the estimated disposition paths and amounts for each of the different waste types. These values are best estimates and are not a committed maximum.

#### METAL

Most of the metal material will be recycled using the metal-melt process. This represents approximately 33-40% (by weight) of the Italy material. Negligible residual volumes result from this process that would need to be disposed at the Clive facility. None of the recycled metals will be released for unrestricted use. It will be beneficially reused within the nuclear industry.

Metals that are not suitable for recycling (copper, aluminum and etc.) will be volume reduced (by more than a factor of 4) by supercompaction or metal baler and transported to the Clive facility for disposal. This represents approximately 20-27% (by weight) of all the Italy material. The residual waste produced through this process that will be disposed at the Clive facility is approximately 3-5% (by volume) of all the Italy material. This value may decrease if more metal is found to be suitable for recycling.

#### GRAPHITE

The graphite will be repackaged and transported to Clive for disposal. This represents approximately 15% (by weight) of all the Italy material. The residual waste produced through this process that will be disposed at the Clive facility is approximately 3% (by volume) of all the Italy material.

#### RESINS

The resins will be incinerated or repackaged at Bear Creek facility and resultant waste will be disposed at the Clive facility. This represents approximately 5% (by weight) of all the Italy material. The residual waste produced through this process that will be disposed at the Clive facility is approximately 0.5% (by volume) of all the Italy material.



DAW

The DAW will be processed through incineration which will reduce the volume by more than a factor of 200. This represents approximately 15% (by weight) of all the Italy material. The residual waste produced through this process that will be disposed at the Clive facility is approximately 0.2% (by volume) of all the Italy material.

LIQUIDS

The liquids will be incinerated and negligible residual waste results that would need further disposal. This represents approximately 5% (by weight) of the Italy material.

NRC Question 7:

Please clarify whether any material that originates in Italy and imported into the United States will be disposed of in municipal landfills (non-NRC/non-Agreement State regulated) in the United States.

EnergySolutions Response:

None of the material imported from Italy by EnergySolutions will be disposed of in municipal landfills in the United States. Furthermore, none of the material will be disposed of at the Barnwell facility in South Carolina nor will any of the material be disposed of at the Bear Creek facility in Tennessee.

Please contact me at (801) 649-2114 should you have any questions concerning this matter.

Sincerely,

A handwritten signature in black ink that reads "Tye Rogers". The signature is written in a cursive style with a large initial "T".

Tye Rogers  
Sr. Vice President, Regulatory Affairs

cc: Brooke Smith and Carlotta Coates



United States Nuclear Regulatory Commission

Washington, DC 20555

Import License

Pursuant to the Atomic Energy Act of 1954, as amended, and Title 10, Code of Federal Regulations, Chapter 1, Part 110, a license is hereby issued to the licensee designated below authorizing the import of nuclear materials and/or facilities into the United States of America in accordance with the statements and representations made by the licensee in the application referenced below. This license is subject to all applicable rules, regulations, and orders of the United States Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

NRC License Number: IW017

Expiration Date: June 30, 2011

Application Date / Reference Number:

Letter Dtd April 10, 2006 w/ Attachment 1

U.S. Licensee/Receiving Facility:

Duratek Services, Inc.  
Bear Creek Operations  
1560 Bear Creek Road  
Oak Ridge, TN 37831-2530

Attn: Phillip Gianutsos

Quantity and Type: Class A Radioactive Waste consisting of source, special nuclear and byproduct materials in varying combinations as surface or volumetric contaminants. The total quantity of special nuclear material (U-235 equivalent with enrichment levels at or below 5% by weight) authorized for import shall not exceed 350 grams over the duration of this license. The total combined activity level for all other radionuclide contaminants shall not exceed 108 TBq over the duration of this license. The specific quantity of each radionuclide authorized for import shall not exceed the individual levels specified for each radionuclide identified in the import license application over the duration of this license, nor licensee's domestic possession limits. Contaminated materials to be imported will consist of up to 3,500 tons of ferrous and/or non-ferrous metals, 2,000 tons of dry activity material (e.g., wood, paper, and plastic), and 500 tons of liquids (e.g., aqueous and organic based fluids). There may be numerous import shipments over the duration of this license; however no one shipment will exceed 10 CFR Part 110, Appendix P, Table I, Category 2; and no one shipment will exceed 10% of licensee's domestic possession limits.

Point of Origin: Monserco Limited, Brampton, Ontario, Canada

End Use: As authorized by licensee's domestic licenses, any materials imported under this license will be: recycled for beneficial reuse; decontaminated and appropriately released for authorized uses; conditionally released to authorized RCRA Subtitle D landfills; or otherwise used as described in the application for this license. Materials imported under this license that do not conform to specifications in the application, that are not released or processed in accordance with the licensee's domestic licenses, or that are wastes not deemed to be licensee's waste under its domestic licenses, will be returned to Canada under NRC Export License XW010.

Authorized For the U.S. Nuclear Regulatory Commission By:

Name: Janice Dunn Lee, Director  
Office of International Programs

Signature:

Date of Issuance: October 10, 2006

License Condition: This NRC license authorizes import only. Licensee is responsible for compliance with any and all additional Federal and State requirements that apply.



# Duratek™

1560 Bear Creek Road  
Oak Ridge, Tennessee 37831  
phone 865-481-0222 fax 865-482-7206  
www.duratekinc.com

April 10, 2006

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

**Subject:** Applications for 1) Specific License to Import Radioactive Material  
2) Specific License to Export Radioactive Material

Dear Ms. Doane:

Duratek requests a specific license to import potentially radioactively contaminated metal from Canada to Duratek's facility in Oak Ridge, Tennessee for processing under Duratek's Tennessee licenses. Duratek also requests a specific license to authorize the export of radioactive waste generated from this processing to the extent necessary back to Canada.

This license is a generic license to allow the importation of up to 6000 tons of radioactively contaminated material including metals, dry activity material such as wood, paper, and plastic, and liquids such as aqueous and organic based fluids. The sources of this material are not fully known as of the date of this application but will be limited to Canadian facilities authorized by Canada to use and possess radioactive material such as reactors, fuel cycle facilities, and material licensees or facilities equivalent to US Superfund sites. It is expected that the material to be imported would be generated during various activities such as remediation, decontamination, decommissioning, maintenance, equipment upgrades, and routine operational activities. Some of the material to be imported will be free from contamination, some may only be superficially contaminated, and some may be volumetrically contaminated.

The purpose of the import license is to import potentially contaminated material for beneficial reuse by 1) recycling metals for reuse as much of the metal as possible; 2) incinerating liquids and dry activity material to generate energy (i.e., steam) to use in Duratek's operations; and 3) using liquids for cooling purposes in Duratek's operations. Some decontamination work maybe involved. The purpose of the export license is to allow waste that is attributable to Canadian sources under this import license to be exported back to Canada.



# Duratek™

1560 Bear Creek Road  
Oak Ridge, Tennessee 37831  
phone 865-481-0222 fax 865-482-7206  
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April 10, 2006

Ms. Margaret Doane  
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U.S. Nuclear Regulatory Commission  
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This license is a generic license to allow the importation of up to 6000 tons of radioactively contaminated material including metals, dry activity material such as wood, paper, and plastic, and liquids such as aqueous and organic based fluids. The sources of this material are not fully known as of the date of this application but will be limited to Canadian facilities authorized by Canada to use and possess radioactive material such as reactors, fuel cycle facilities, and material licensees or facilities equivalent to US Superfund sites. It is expected that the material to be imported would be generated during various activities such as remediation, decontamination, decommissioning, maintenance, equipment upgrades, and routine operational activities. Some of the material to be imported will be free from contamination, some may only be superficially contaminated, and some may be volumetrically contaminated.

The purpose of the import license is to import potentially contaminated material for beneficial reuse by 1) recycling metals for reuse as much of the metal as possible; 2) incinerating liquids and dry activity material to generate energy (i.e., steam) to use in Duratek's operations; and 3) using liquids for cooling purposes in Duratek's operations. Some decontamination work maybe involved. The purpose of the export license is to allow waste that is attributable to Canadian sources under this import license to be exported back to Canada.

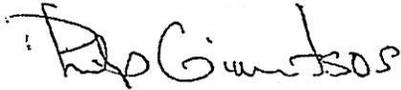
Applications for -- 1) Specific License to Import Radioactive Material  
2) Specific License to Export Radioactive Material

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The applications are attached in Attachments 1, 2, and 3. We assume NRC will appropriately delete possession limit information in the interest of materials security prior to making these documents publicly available. We are enclosing a check in the amount of \$15,000 to address the fees for two applications specified in 10 CFR 170.31, Category 15 B., assuming Executive Branch, but not Commission review, is required for each application.

If you have any questions or need additional information, please do not hesitate to call me at 865-220-1478.

Respectfully submitted,



Philip Gianutsos, CHP  
Radiation Safety Officer  
Duratek Services, Inc.

Attachments:

- 1) Import Application
- 2) Export Application (Form 7)
- 3) Addendum to Export Application



# United States Nuclear Regulatory Commission

Washington, DC 20555

## Import License

Pursuant to the Atomic Energy Act of 1954, as amended, and Title 10, Code of Federal Regulations, Chapter 1, Part 110, a license is hereby issued to the licensee designated below authorizing the import of nuclear materials and/or facilities into the United States of America in accordance with the statements and representations made by the licensee in the application referenced below. This license is subject to all applicable rules, regulations, and orders of the United States Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

**NRC License Number:** IW018

**Expiration Date:** December 31, 2009

**Application Date / Reference Number:**

May 1, 2006

**U.S. Import Licensee:**

AREVA NP, Inc.  
3315 Old Forest Road  
Lynchburg, VA 24501

Attn: Gayle Elliott

**Quantity and Type:** (1) Up to 457 kilograms of compactable dry activity wastes (DAW), such as rubber gloves, cotton protective clothing, and cloth rags contaminated with decontamination residue in the form of corrosion activation products and mixed fission products resulting from the physical decontamination of reactor coolant pump internals, which were exported to France from the Surry Nuclear Power Station in Virginia. The total activity of the DAW, which is characterized as Class A and Class C radioactive waste in the United States, shall not exceed .07 TBq. (2) Up to 88 kilograms of resins contaminated with decontamination residue from chemical decontamination of the reactor coolant pump internals. The total activity level of the resins, or Class C radioactive waste shall not exceed 0.21 TBq.

**Supplier:** Class A and C radioactive waste is to be returned to the U.S. from:

Somanu  
Z.A.C. de Grevaux les Guides  
59600 Maubeuge, France

**U.S. Receiving Facilities:**

EnergySolutions Processing Facility (Duratek)  
1560 Bear Creek Road  
Oak Ridge, Tennessee 37831

**End Use:** The imported waste will be shipped to the EnergySolutions Processing Facility (Duratek) in Oak Ridge, Tennessee where it will be consolidated and thermally treated thereby converting all of it to Class A waste. The waste will then be shipped to the EnergySolutions disposal site in Clive, Utah for final disposal.

**Authorized For the U.S. Nuclear Regulatory Commission By:**

**Name:** Scott Moore  
**Title:** Deputy Director  
Office of International Programs

**Signature:**

**Date of Issuance:** December 14, 2007

**License Condition:** This NRC license authorizes import only. Licensee is responsible for compliance with any and all additional Federal and State requirements that apply.

October 24, 2007

Mr. Michael Garner, Executive Director  
Northwest Interstate Compact on  
Low-Level Radioactive Waste Management  
Department of Ecology  
State of Washington  
P.O. Box 47600  
Olympia, WA 98504-7600

SUBJECT: APPLICATION FOR NRC IMPORT LICENSE (IW018)

Dear Mr. Garner:

Enclosed for your consideration is an application for a license (IW018), received by the U.S. Nuclear Regulatory Commission (NRC) from AREVA NP Inc. (AREVA), concerning imports of U.S.-origin radioactive waste from France. The license will allow for the import, transport, processing and disposal of up to 457.0 kilograms of dry Class A waste contaminated with various radionuclides and up to 88.0 kilograms of Class C contaminated resins. The waste was generated as a result of the French decontamination and restoration of portions of an U.S.-owned Reactor Coolant Pump (RCP).

AREVA will consolidate and thermally treat its RCP-related waste at Duratek in Tennessee (converting it all to Class A), and transport the Class A material to the EnergySolutions site in Clive, Utah for disposal.

Public Notice that the NRC received this application was published in the Federal Register on August 1, 2006. In addition, the NRC forwarded AREVA's request to the U.S. Department of State on June 2, 2006, for assistance in notifying the Government of France of the transactions proposed. The NRC also requested the State Department's views as to whether approving the license would be consistent with the guidelines in the Joint Convention on the Safety of Spent Fuel Management and Safety of Radioactive Waste Management.

We are also forwarding a copy of this request to the Southeast Compact Commission and the States of Tennessee and Utah for their consideration.

It would be greatly appreciated if within two weeks of the date of this letter, you could respond with any comments you may have concerning the import request, or if necessary, provide an estimate of how much additional time may be required to complete your review and provide a written response to the NRC.

M. Garner

-2-

We also welcome your response by e-mail or telefax, and request that you refer to NRC license application IW018 in your response. Please send your response to Paul MacMurdy's email address (phm1@nrc.gov) or to our office telefax number at (301) 415-2395. If you respond by e-mail, please send a copy of your email response to Mr. Stephen Dembek (sxd@nrc.gov).

Should you have questions or require additional information, please feel free to contact me at (301) 415-2342 or Mr. MacMurdy at (301) 415-1690.

Sincerely,

*/RA/*

Stephen Dembek, Branch Chief  
Export Controls and International Organizations  
Office of International Programs

Docket No.: 11005628

Enclosures:

1. Appl. Letter Dated 05/01/06
2. Letter to State Dept. Dated 06/02/06
3. Federal Register Notice Dated 07/11/06

cc w/enclosures:

G. Kim, NRC/OGC  
J. Davis, NRC/FSME  
J. Kennedy, NRC/FSME  
J. Shaffner, NRC/FSME

We also welcome your response by e-mail or telefax, and request that you refer to NRC license application IW018 in your response. Please send your response to Paul MacMurdy's email address (phm1@nrc.gov) or to our office telefax number at (301) 415-2395. If you respond by e-mail, please send a copy of your email response to Mr. Stephen Dembek (sxd@nrc.gov).

Should you have questions or require additional information, please feel free to contact me at (301) 415-2342 or Mr. MacMurdy at (301) 415-1690.

Sincerely,

/RA/

Stephen Dembek, Branch Chief  
Export Controls and International Organizations  
Office of International Programs

Docket No.: 11005628

Enclosures:

- 1. Appl. Letter Dated 05/01/06
- 2. Letter to State Dept. Dated 06/02/06
- 3. Federal Register Notice Dated 07/11/06

cc w/enclosures:

- G. Kim, NRC/OGC
- J. Davis, NRC/FSME
- J. Kennedy, NRC/FSME
- J. Shaffner, NRC/FSME

DOCUMENT NAME: S:\Imports - States-Compacts\IW018 Ltr to M Garner-NWCompact.wpd

**ADAMS ACCESSION NOS.:**

TEMPLATE NO.: OIP-004

Package No.: ML072950090

Letter No.: ML072990305

Enclosure 1 No.: ML061500142

Enclosure 2 No.: ML061500421

Enclosure 3 No.: ML061910006

\* See previous concurrence

Publicly Available       Non-Publicly Available       Sensitive       Non-Sensitive

OFFICE	OIP	OIP	BC:OIP
NAME	R Barnes	J Owens *	S Dembek
DATE	10-23-07	10/24/07	10/24/07

OFFICIAL RECORD COPY

**From:** "Garner, Mike (ECY)" <JAMG461@ECY.WA.GOV>  
**To:** <sxd@nrc.gov>  
**Date:** 11/16/2007 1:45:39 PM  
**Subject:** AREVA Import License Application (IW018)

Steve: The Northwest Interstate Compact has no issue with AREVA's import license application (IW018). Have a nice weekend and a good holiday –  
Mike

**CC:** "Goldstein, Larry (ECY)" <lgo1461@ECY.WA.GOV>

**Mail Envelope Properties** (473DE546.913 : 19 : 26899)

**Subject:** AREVA Import License Application (IW018)  
**Creation Date** 11/16/2007 1:45:10 PM  
**From:** "Garner, Mike (ECY)" <JAMG461@ECY.WA.GOV>  
**Created By:** JAMG461@ECY.WA.GOV

**Recipients**

nrc.gov  
OWGWPO03.HQGWDO01  
SXD (Stephen Dembek)

ECY.WA.GOV  
lgol461 CC (Larry (ECY) Goldstein)

**Post Office**

OWGWPO03.HQGWDO01

**Route**

nrc.gov  
ECY.WA.GOV

**Files**

Files	Size
MESSAGE	152
TEXT.htm	546
Mime.822	2736

**Date & Time**

11/16/2007 1:45:10 PM

**Options**

**Expiration Date:** None  
**Priority:** Standard  
**ReplyRequested:** No  
**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard



## United States Nuclear Regulatory Commission

Washington, D.C. 20555

### Import License

Pursuant to the Atomic Energy Act of 1954, as amended, and Title 10, Code of Federal Regulations, Chapter 1, Part 110, a license is hereby issued to the licensee designated below authorizing the import of nuclear materials and/or facilities into the United States of America in accordance with the statements and representations made by the licensee in the application referenced below. This license is subject to all applicable rules, regulations, and orders of the United States Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

**NRC License Number:** IW022

**Expiration Date:** August 30, 2012

**Application Date / Reference Number:**

May 16, 2007 and August 8, 2007 Letters

**U.S. Licensee/Receiving Facility:**

Perma-Fix Northwest, Inc.  
2025 Battelle Boulevard  
Richland, WA 99354

Contact: Curt Cannon

**Quantity and Type:** Class A radioactive waste consisting of up to 5,500 tons of material contaminated with various radionuclides in varying combinations. The material includes: metals, wood, paper, concrete, cloth, rubber, plastic, liquids, and animal carcasses and animal-human waste from research and medical facilities. Given that there will be numerous shipments, the total combined activity levels for all of the radioactive contaminants on the materials imported under this license will not at any time exceed the licensee's domestic possession limits. Likewise, no one shipment will exceed 10 CFR Part 110, Appendix P, Table I, Category 2 thresholds.

**Point of Origin:** Atomic Energy of Canada Limited - Chalk River Laboratories

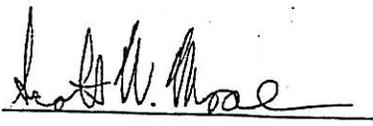
**End Use:** Recycling for beneficial reuse and processing for volume reduction via thermal and non-thermal treatment. Liquids to be recycled. Non-conforming materials and/or radioactive waste attributed to the Canadian supplier will be returned to Canada per the appropriate NRC export license (Ref. XW012).

**Authorized For the U.S. Nuclear Regulatory Commission By:**

Name: Scott W. Moore

Title: Deputy Director

Office of International Programs

Signature: 

**Date of Issuance:**

September 25, 2007

**License Condition:** This NRC license authorizes import only. The licensee is responsible for complying with all applicable federal and state government requirements.

August 7, 2007

Mr. Michael Garner, Executive Director  
Northwest Interstate Compact on  
Low-Level Radioactive Waste Management  
Department of Ecology  
State of Washington  
P.O. Box 47600  
Olympia, WA 98504

VIA TELEFAX: 360-407-7152

SUBJECT: APPLICATIONS FOR NRC IMPORT LICENSE (IW022) AND EXPORT  
LICENSE (XW012)

Dear Mr. Garner:

Enclosed for your consideration is a letter dated May 15, 2007 which contains two applications from Pacific EcoSolutions/Perma-Fix Environmental Services, Inc. (renamed Perma-Fix Northwest, Inc. effective June 1, 2007) for U.S. Nuclear Regulatory Commission (NRC) licenses to import and export Canadian-origin radioactive waste. As the enclosed May 15, 2007 letter-applications initially were incomplete, they officially became NRC license applications (IW022 and XW012) on June 18, 2007.

Perma-Fix Northwest, Inc. is seeking an NRC license to import a maximum of 5,500 tons – comprising approximately 1,000 tons of metal, 4,000 tons of dry activity material, and 500 tons of liquid – contaminated with radionuclides of various combinations. They indicate that the activity levels of the radioactive contaminants will not exceed licensee possession limits, and the materials will either be recycled for beneficial reuse or processed for volume reduction by thermal and nonthermal treatment. The purpose of their export license application (XW012) is to authorize the return to Canada of non-conforming imported waste or processed material that can be attributed to a Canadian generator.

The applications were forwarded to the U.S. Department of State (DOS) on July 11, 2007 for assistance in notifying the Canadian Nuclear Safety Commission of the proposed transactions. The NRC also requested DOS's views as to whether approving these applications would be consistent with the guidelines of the Joint Convention of the Safety of Spent Fuel Management and Safety of Radioactive Waste Management.

A Federal Register notice regarding these applications was published on August 1, 2007 (72 FR 421 36). We also are telefaxing an analogous letter to Mr. Gary Robertson, Director of the State of Washington's Division of Radiation Protection, to confirm that the applicant's facility is appropriately authorized to perform the activities described.

M. Garner

-2-

It would be greatly appreciated if within two weeks of the date of this letter, you could respond with comments, or if necessary provide an estimate of how much additional time may be required to complete your review and provide a written response to the NRC.

We also welcome your response by e-mail or telefax, and request that you refer to NRC license applications IW022 and XW012 in your response. As the Commission's point of contact for this matter, my e-mail address is [jeo@nrc.gov](mailto:jeo@nrc.gov) and my telefax number is (301) 415-2395. If you respond by e-mail, please copy your response to Mr. Paul MacMurdy at [p hm1@nrc.gov](mailto:p hm1@nrc.gov).

Should you have questions or require additional information, please feel free to contact me at (301) 415-3684 or Mr. MacMurdy at (301) 415-1690.

Sincerely,

/RA/

Janice E. Owens, Acting Branch Chief  
Export Controls and International Organizations  
Office of International Programs

Enclosures:

1. Ltr. Dtd. 05/15/07 / Appl. Dtd. 05/16/07  
IW022 - Canada  
Docket Number 11005700
2. Ltr. Dtd. 05/15/07 / Appl. Dtd. 05/16/07  
XW012 - Canada  
Docket Number 11005699

cc w/encls:

J. Davis, NRC/FSME  
J. Kennedy, NRC/FSME  
J. Shaffner, NRC/FSME

It would be greatly appreciated if within two weeks of the date of this letter, you could respond with comments, or if necessary provide an estimate of how much additional time may be required to complete your review and provide a written response to the NRC.

We also welcome your response by e-mail or telefax, and request that you refer to NRC license applications IW022 and XW012 in your response. As the Commission's point of contact for this matter, my e-mail address is [jeo@nrc.gov](mailto:jeo@nrc.gov) and my telefax number is (301) 415-2395. If you respond by e-mail, please copy your response to Mr. Paul MacMurdy at [phm1@nrc.gov](mailto:phm1@nrc.gov).

Should you have questions or require additional information, please feel free to contact me at (301) 415-3684 or Mr. MacMurdy at (301) 415-1690.

Sincerely,

/RA/

Janice E. Owens, Acting Branch Chief  
Export Controls and International Organizations  
Office of International Programs

Enclosures:

- 1. Ltr. Dtd. 05/15/07 / Appl. Dtd. 05/16/07  
IW022 - Canada  
Docket Number 11005700
- 2. Ltr. Dtd. 05/15/07 / Appl. Dtd. 05/16/07  
XW012 - Canada  
Docket Number 11005699

cc w/encls:

- J. Davis, NRC/FSME
- J. Kennedy, NRC/FSME
- J. Shaffner, NRC/FSME

DOCUMENT NAME: S:\Imports\Imports - States-Compacts\IW022-XW012 ltr to NW Compact.wpd

**ADAMS ACCESSION NOS.:**

Package No.: ML072140698  
 Letter No.: ML072140709  
 Enclosure 1 No.: ML071840141 (IW022)  
 Enclosure 2 No.: ML071840138 (XW012)

TEMPLATE NO.: OIP-004

\* See previous concurrence

Publicly Available    
  Non-Publicly Available    
  Sensitive    
  Non-Sensitive

OFFICE	OIP	OIP	Acting BC:OIP
NAME	R Barnes	P MacMurdy	J E Owens
DATE	8-2-07	8-6-07	8/7/07



## United States Nuclear Regulatory Commission

Washington, D.C. 20555

### Import License

Pursuant to the Atomic Energy Act of 1954, as amended, and Title 10, Code of Federal Regulations, Chapter 1, Part 110, a license is hereby issued to the licensee designated below authorizing the import of nuclear materials and/or facilities into the United States of America in accordance with the statements and representations made by the licensee in the application referenced below. This license is subject to all applicable rules, regulations, and orders of the United States Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

**NRC License Number:** IW021

**Expiration Date:** June 30, 2013

**Application Date / Reference Number:**

February 28, 2007 / EFM-07-0432

**U.S. Licensee/Receiving Facility:**

Westinghouse Electric Company LLC  
4350 Northern Pike  
Monroeville, PA 15146

Attn: Edward F. McDonough

**Quantity and Type:** Approximately 74,843.0 kilograms of waste filter cake/122,470.0 kilograms of shot (Class A Radwaste) which contains up to a total of 72.288 kilograms of uranium comprised in part of up to 3.506 kilograms of U-235 enriched to 4.9 w/o maximum. These materials were recovered by ~~Mississauga Metals and Alloys of Ontario, Canada~~ by decontaminating steel previously exported to Mississauga from the United States pursuant to NRC Export License XW003. Mississauga possesses the requisite export license from Canada (No. EL-A1-17254.0/2006). The applicant and U.S. domestic NRC licensee, ~~Westinghouse LLC~~, has concluded a formal agreement with Energy Solutions of Utah, Inc. to dispose of the materials at the Clive, Utah site. The materials will depart Mississauga, and be trans-shipped through the Westinghouse Electric Company LLC (Hematite) Festus, Missouri facility to the Energy Solutions site of Clive, Utah for disposal as Class A Radwaste.

**Point of Origin:** Mississauga Metals and Alloys of Ontario, Canada

**End Use:** In accordance with the agreement between the parties, materials are to be disposed of as Class A Radwaste at Energy Solutions of Utah, Inc., Clive Disposal Site - Bulk Waste Facility, Interstate 80, Exit 49, Clive, Utah 84029.

**Authorized For the U.S. Nuclear Regulatory Commission By:**

Name: Margaret M. Doane

Title: Deputy Director

Office of International Programs

Signature:

**Date of Issuance:**

June 13, 2007

**License Condition:** This NRC license authorizes import only. Licensee is responsible for complying with all applicable federal government and state government requirements.



State of Utah

Department of  
Environmental Quality

Dianne R. Nielson, Ph.D.  
*Executive Director*

DIVISION OF RADIATION  
CONTROL  
Dane L. Finerfrock  
*Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY HERBERT  
*Lieutenant Governor*

May 17, 2007

Mr. Stephen Dembek, Branch Chief  
Export Controls and International Organizations  
Office of International Programs  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

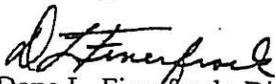
Re: Letter dated April 30, 2007 regarding Import License Application IW021

Dear Mr. Dembek:

In your letter you requested comments as to the *EnergySolutions* authorizations to dispose of low-level radioactive wastes (LLRW) described in the application cited above. The *EnergySolutions* license (UT2300239) issued by the Division of Radiation Control, Utah Department of Environmental Quality authorizes disposal of LLRW up to the Class A limits, including the Uranium isotopes described in the application.

The Utah Radiation Control Rules, the *EnergySolutions* license or our governing Statues do not prohibit the importation of LLRW for disposal. Should you have any questions, please contact me at 801-536-4250.

Sincerely,

  
Dane L. Finerfrock, Director  
Division of Radiation Control

Cc: Tye Rogers, *EnergySolutions*

WY904257023  
AUG-08-99 MON 11:20 AM

ATG, INC 812 511

FAX NO.

19/04/99 17:16 P. 013/018  
P. 02/02



## United States Nuclear Regulatory Commission

Washington, DC 20555

### Import License

Pursuant to the Atomic Energy Act of 1954, as amended, and Title 10, Code of Federal Regulations, Chapter 1, Part 110, a license is hereby issued to the licensee designated below authorizing the import of nuclear materials and/or facilities into the United States of America in accordance with the statements and representations made by the licensee in the application referenced below. This license is subject to all applicable rules, regulations, and orders of the United States Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

NRC License Number: 1W806

Expiration Date: 31 December 2000

Application Date/Reference Number: Application dated 11/18/97

Licensee: Allied Technology Group, Inc. (ATG)  
2025 Battelle Boulevard, P.O. Box 969  
Richland, Washington 99353  
Attn: W. M. Hewitt

Quantity and Type of Material: Radioactive scrap tubing and tube plate. Approximately 750,000 kilograms (110 cubic meters if closely packed) of aluminum-bronze and nickel-copper condenser tubing contaminated on the surface with 1.3 Gbaq. (36 mCi) of Cobalt-60 and Cesium-137 oxides. The waste includes approximately 124,000 pieces, 6.86 meters long, and 68,000 pieces, 3.42 meters long, of tubing, all 2.5 cm outside diameter.

Point of Origin: Taiwan (Taiwan Power Company)

End Use: For decontamination and recovery of the metal for recycling. The secondary waste resulting from the decontamination process will be disposed of at US Ecology's low-level waste disposal facility in Richland, Washington.

Receiving Facility in the United States: Allied Technology Group, Inc.  
2025 Battelle Boulevard  
Richland, Washington 99353

Radioactive Material License Number WN-10393-1, issued by the State of Washington, Department of Health.

For the U.S. Nuclear Regulatory Commission

Name: Ronald D. Hauber

Signature: *Ronald D. Hauber*

Title: Director, Non-Proliferation, Exports & Multilateral Relations, Office of International Programs

Date of Issuance: September 8, 1999

License Condition: Only the successful bidder for the Taiwan Power Company contract will be authorized to import the radioactive scrap into the United States.

---

**From:** Garner, Mike (ECY) [mailto:JAMG461@ECY.WA.GOV]

**Sent:** Thursday, November 15, 2007 2:42 PM

**To:** Tye Rogers

**Cc:** ccannon@perma-fix.com; brogers@envirocareutah.com; Goldstein, Larry (ECY); Elsen, Mike (DOH)

**Subject:** RE: ATG Legacy Waste

Tye: That portion of the Allied Technology Group legacy waste that is authorized for shipment to EnergySolutions by the Washington State Department of Health does not require compact authorization. Please read the attachment as it addresses the ATG legacy waste issue. Thanks for ensuring this waste meets all compact rules and requirements. Call me if you have questions  
- Mike

---

**From:** Tye Rogers [mailto:trogers@energysolutions.com]

**Sent:** Wednesday, November 14, 2007 1:25 PM

**To:** Garner, Mike (ECY)

**Cc:** brogers@envirocareutah.com; kkirkwood@envirocareutah.com; arafati@envirocareutah.com

**Subject:**

Mike,

We have been contacted by PeCos and they would like to start shipping the legacy waste to us and they have represented that they have all the necessary regulatory approvals. The last time we talked, it appeared that they were close to obtaining approval. By our license, we are required to obtain approval from the compact, prior to receiving any shipment. Will you please reply to this email stating that we have your permission to receive this waste, if indeed they have regulatory approval? They would like to ship as soon as possible. Pls give me a call if you have any questions. I am traveling so please contact me on my cell: 801-560-3603.

Thanks

Tye

As reported at the September 25, 2007 meeting of the Northwest Compact Committee the Washington State Department of Health (Health) has resolved the Allied Technology Group (ATG) legacy waste issue at the Richland, Washington waste treatment and processing facility. This facility is now operated by Perma-Fix Northwest (PFNW). Approximately ten percent of the legacy waste will be disposed at the Richland, Washington commercial disposal facility. The other ninety percent is considered out-of-region low-level waste and is eligible for disposal at EnergySolutions, Clive facility.

Health provides regulatory oversight for low-level waste shipments out of the PFNW facility. Health will only authorize shipment of that portion of the legacy waste identified as having originated outside of the compact region for shipment to EnergySolutions. This waste may be shipped as PFNW/ATG legacy waste.

Both Health and PFNW will notify the Executive Director of the Northwest Compact once shipment of the out-of-region legacy waste is completed.

This authorization applies only to the ATG legacy waste. Future out-of-region low-level waste should be attributed to the generator and state in which it was generated. If you have questions please contact me at (360) 407-7102.



## United States Nuclear Regulatory Commission

Washington, DC 20555

### Import License

Pursuant to the Atomic Energy Act of 1954, as amended, and Title 10, Code of Federal Regulations, Chapter 1, Part 110, a license is hereby issued to the licensee designated below authorizing the import of nuclear materials and/or facilities into the United States of America in accordance with the statements and representations made by the licensee in the application referenced below. This license is subject to all applicable rules, regulations, and orders of the United States Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

**NRC License Number:** IW009

**Expiration Date:** December 31, 2010

**Application Date/Reference Number:**

Letter dated September 23, 1999

**US Licensee/Receiving Facility:**

Framatome ANP Inc.  
2101 Horn Rapids Road  
Richland, WA 99352

Attn: D. Noss

**Quantity and Type of Material:** 1,200.0 kilograms Class A Radioactive Waste consisting of combustible materials (paper, wood, clothing, plastic) contaminated with low enriched uranium (LEU) oxide powder, enriched to 5% w/o maximum, generated during the LEU fuel fabrication process (conversion of UF<sub>6</sub>; production of UO<sub>2</sub> powder; pressing UO<sub>2</sub> powder into pellets; and loading pellets into fuel assemblies). A small amount of slightly contaminated non-combustibles may be included, though Class A Radioactive Mixed waste will not be.

**Point of Origin:** Advanced Nuclear Fuels GmbH (ANF), Lingen, Germany

**End Use:** Licensee will incinerate contaminated combustible materials to recover uranium. Slightly contaminated non-combustibles from processing will be returned to ANF in Germany, in accordance with NRC export license XW005. Arrangements for disposal of low-level radioactive waste at the US Ecology, Inc facility in Richland, Washington are in place and subject to the terms and conditions of the State of Washington and Northwest Interstate Compact on Low Level Radioactive Waste Management.

**Authorized For the U.S. Nuclear Regulatory Commission By:**

Name: Edward T. Baker  
Title: Deputy Director,  
Office of International Programs

Signature: 

**Date of Issuance:** October 16, 2003

**License Condition:** This NRC license authorizes import only. Licensee is responsible for compliance with any and all additional Federal and State requirements that apply.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

March 29, 2000

Mr. Michael Garner  
Department of Ecology  
Nuclear Waste Program  
State of Washington  
P.O. Box 47600  
Olympia, WA 98504-7600

Mr. William Sinclair, Director  
Division of Radiation Control  
State of Utah  
P.O. Box 144850  
Salt Lake City, UT 84114-4850

Gentlemen:

Enclosed is an application dated September 23, 1999 from Siemens Power Corporation (SPC) for a license to import Class A radioactive waste from Germany.

The material to be imported is from Advanced Nuclear Fuels GmbH (ANF) in Lingen, Germany, and consists of combustible materials contaminated with low enriched uranium. The waste is generated during low enriched nuclear fuel fabrication including conversion of UF<sub>6</sub>, production of UO<sub>2</sub> powder, pressing of the powder into pellets, and loading of the pellets into fuel assemblies.

The imported material will be shipped directly from Europe by sea to U.S. East coast ports and ultimately by truck to SPC in Richland, Washington. Upon receipt, SPC will incinerate the material and the uranium in the ash will be recovered; the slightly contaminated non-combustibles sorted out during the incineration process will be returned to the originator in Germany. Residues from the filter process will be disposed of at either the Hanford low-level radioactive waste disposal site operated by U.S. Ecology in Richland, Washington or Envirocare in Clive, Utah in accordance with applicable site license conditions and waste acceptance criteria.

Before taking action on this application, we wish to consult with all affected States and compacts and ask for your comments regarding the proposed import of the subject low-level radioactive waste.

Sincerely,

Ronald D. Hauber, Deputy Director  
Office of International Programs

Enclosure:  
Import Lic. Appl. IW009 dtd 09/23/99

cc w/encl: J. Greeve, NMSS/DWM  
P. Lohaus, OSP

Template OIP-002

DF03

**Northwest Interstate Compact**  
On Low-Level Radioactive Waste Management

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

~~RA~~  
BSW

cc: to J. Kennedy  
NMS5

April 18, 2000

I W 009  
11 00 5149  
Additional information

Mr. Ronald D. Hauber, Deputy Director  
Office of International Programs  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Mr. Hauber:

Thank you for your March 29, 2000 in which you request comments regarding a request by Siemens Power Corporation for a license to import Class A low-level radioactive waste from Germany. The Northwest Compact has no issue with the request made by Siemens Power Corporation however, I would like to take the opportunity to clarify a couple of points.

First, all low-level radioactive waste resulting from the vacuum filtration stage of the uranium recovery process at Siemen's Richland facility would be eligible for disposal at the commercial low-level radioactive waste disposal facility located near Richland, Washington and operated by US Ecology, Inc. However, in accordance with the "Second Amended Resolution and Order" adopted by the Northwest Compact Committee on November 9, 1998, such low-level radioactive waste could not be sent to the Envirocare of Utah, Inc. facility without first obtaining the approval of the Northwest Compact Committee (see enclosure).

Second, if the material resulting from the uranium recovery process was a low-level mixed waste it may be sent to the Envirocare of Utah, Inc. facility without the approval of the Northwest Compact Committee.

Should you have additional questions please contact me at 360/407-7102.

Sincerely,

Mike Garner, Executive Director  
Northwest Interstate Compact

Enclosure

cc: Northwest Compact Committee

200 APR 1 - 1 AM 7:40

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ALASKA . HAWAII . IDAHO . MONTANA . OREGON . UTAH . WASHINGTON . WYOMING

ML003709549

**Northwest Interstate Compact**

On Low-Level Radioactive Waste Management

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

**SECOND AMENDED  
RESOLUTION AND ORDER**

Whereas, the Compact Committee continues to support the Low-Level Radioactive Waste Policy Amendments Act, Public Law 99-240;

Whereas, the State of Utah has licensed Envirocare of Utah, Inc. as a low-level radioactive waste disposal facility;

Whereas, the Envirocare of Utah, Inc. facility in Clive, Utah, serves an important national purpose in accepting certain types of low-level radioactive waste for treatment and disposal;

Whereas, allowing certain low-level radioactive waste access to the licensed Envirocare of Utah, Inc. facility should not be construed to diminish the Compact Committee's support for Public Law 99-240;

Whereas, since allowing access to the Envirocare of Utah, Inc. facility, as restricted by the radioactive materials license issued by the State of Utah, will not resolve continued uncertainties about national capacity for the disposal of low-level radioactive waste, the Compact Committee urges other compacts and unaffiliated states to provide disposal capacity for such waste;

Whereas, no facility located in any party state may accept low-level waste generated outside the region comprised of the party states except as may be agreed to under Articles IV and V of the Compact statute; and

Whereas, the Compact Committee has been asked by the State of Utah to allow access to Envirocare of Utah, Inc. for certain low-level radioactive wastes;

BE IT HEREBY RESOLVED AND ORDERED THAT:

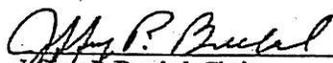
1. Low-level radioactive mixed waste, as defined in federal and/or state law is allowed access to the Envirocare of Utah, Inc. facility in the Northwest Interstate Compact region.
2. Low-level radioactive waste (as defined in Public Law 99-240) as allowed under, and regulated by the terms of, the radioactive materials license of Envirocare of Utah, Inc. as determined by the State of Utah, is allowed access to the Envirocare of Utah, Inc. facility in the Northwest Interstate Compact region.

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MAY 1 1994  
04:27 AM '94

ALASKA . HAWAII . IDAHO . MONTANA . OREGON . UTAH . WASHINGTON . WYOMING

3. While the Compact allows the above described wastes access to the licensed Envirocare of Utah, Inc. facility in the Northwest Interstate Compact region, in accordance with Article V of the Compact, Utah retains the right to specifically approve each disposal arrangement before the waste is allowed access to the licensed Envirocare of Utah, Inc. facility.
4. All federal and state environmental and other laws and regulations shall be complied with by the licensed Envirocare of Utah, Inc. facility accepting the above referenced media or waste for treatment, storage, or disposal. The Compact has no authority and assumes no responsibility for the licensing and operation of the Envirocare of Utah, Inc. facility.
5. It is the intent of the Committee that only those wastes approved by the compact of origin (including the Northwest Compact) be allowed. For states unaffiliated with a compact, state approval for export is required to the extent states can exercise such approval. This Resolution and Order shall constitute an arrangement under Article V of the Compact statute with any unaffiliated state or compact that approves waste for export to the Envirocare of Utah, Inc. facility.
6. The licensed Envirocare of Utah, Inc. facility accepting any of the above described low-level radioactive wastes shall provide monthly to the Compact Executive Director a record of all shipments to include generator name, state of generation, the kind of waste, waste form, total waste volume, and average concentration of each such shipment.
7. The Northwest Interstate Compact retains the right to modify or rescind this authorization at any time. The Compact Executive Director shall monitor progress of other compacts and states in siting low-level radioactive waste disposal facilities under Public Law 99-240. At three-year intervals, the Compact Committee shall evaluate such progress with regard to access to the Envirocare of Utah, Inc. facility.

As approved by the Northwest Interstate Compact on Low-Level Radioactive Waste Management, I execute this revised Resolution and Order on the 9<sup>th</sup> day of November 1998.

  
\_\_\_\_\_  
Jeffrey B. Breckel, Chair  
Northwest Interstate Compact on  
Low-Level Radioactive Waste Management



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

P.O. Box 47600 • Olympia, Washington 98504-7600  
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

RECEIVED OIP

1999 SEP 29 PM 3:03

February 26, 1999

Mr. Loren J. Maas, Manager  
Regulatory Compliance  
Siemen's Power Cooperation  
2101 Horn Rapids Road  
Richland, WA 99352

Dear Mr. Maas:

I have reviewed the materials that you provided to Mr. Mike Garner, Environmental Specialist, regarding Siemen's uranium recovery process. I concur with Mr. Garner's assessment that waste does not result until the vacuum filtration stage of the uranium recovery process. This stage separates the uranium solution, to be used for fuel fabrication, from the ash residue. The waste consists of ash residue and perlite filter media. Hence, the waste generated by the uranium recovery process for both Siemen's Lingen, Germany and Richland, Washington contaminated material would be attributed to Siemens' Richland facility. Therefore, these wastes would be eligible for disposal at US Ecology's disposal facility, provided they meet the waste acceptance criteria for the site. I want to emphasize that all non-incinerable items received from Siemen's Lingen facility are not eligible for disposal at the US Ecology facility.

The authorization provided above is valid for those materials and processes described within your proposal. I am providing a copy of this letter to Mr. Doug Mosich, Chair of the Northwest Interstate Compact, to ensure the compact is aware that the Washington State Department of Ecology will attribute this waste to Siemens' Richland facility. Should you have additional questions, please contact Mr. Garner at (360) 407-7102.

Sincerely,

Michael Wilson, Program Manager  
Nuclear Waste Program

cc: Mr. Doug Mosich, Northwest Interstate Compact  
Mr. Gary Robertson, Washington State Department of Health



February 22, 2008

Mr. Michael Garner  
Executive Director  
Northwest Interstate Compact on  
Low-Level Radioactive Waste Management  
Washington State Department of Ecology  
P.O. Box 47600  
Olympia, WA 98504

Dear Mr. Garner:

I am writing today to address issues raised to the Northwest Interstate Compact, including those raised in a letter to you from Congressman Bart Gordon, regarding the import license application that EnergySolutions submitted to the Nuclear Regulatory Commission (NRC) in September 2007.

It is not the intent of EnergySolutions to import wholesale amounts of low-level radioactive waste (LLRW) and dispose of it at our Clive, Utah facility. As the world moves to decrease its dependence on fossil fuels and increase its use of clean energy such as nuclear power, the United States should assist in securing these types of materials for environmental and security reasons. EnergySolutions is a world leader in the safe handling, packaging and disposition of these types of materials.

EnergySolutions has a pending application with the NRC to import up to 20,000 tons, over a five year period, of low-level radioactive material from Italy. The material is mostly paper, plastic, wood, and assorted metal ion exchange resins. As you know, prior to issuing an import license, the NRC undertakes a rigorous licensing process pursuant to Title 10 of the Code of Federal Regulations. If EnergySolutions is successful in obtaining the license, it will ensure that all of the imported waste meets the processing and disposition licenses at the Bear Creek, Tennessee and Clive facilities by subjecting the material to an extensive waste characterization at the generator site. In addition, all material will be packaged and shipped in accordance with the requirements of the U.S. Department of Transportation and International Atomic Energy Agency regulations.

The material will be processed at the Bear Creek facility. Approximately 33% of the material will be recycled and formed into shield blocks to be reused within the nuclear industry. The remaining material will be processed and only approximately 8% of this amount would be disposed of at Clive. This represents a very small fraction of the material received at Clive in a given year. The Clive facility currently has the capacity to dispose of the Class A material generated by the decommissioning of every nuclear power plant in the country, with significant capacity remaining. Any material disposed at Clive will be Class A and will meet the Waste Acceptance Criteria.



It has been reported that the pending application is 25 times greater than any other application received by the NRC. This is not accurate. In 2006, the NRC granted a license to import up to 6,000 tons of the same type of material and in 2007 the NRC granted a license to import up to 5,500 tons of similar material. It has been asserted that if the NRC grants our license it will represent an unprecedented reversal in the country's approach to the disposal of LLRW. This is not accurate. The NRC has granted similar licenses in the past consistent with the U.S. laws and regulations. Some have also asserted that no European country has disposal options for LLRW. This is not accurate. Currently there are 7 LLWR repositories in Europe.

We understand that Clive plays a vital role in the disposal of LLRW in the United States. We will always maintain sufficient capacity at Clive to meet the domestic needs of our country. We assure you that we will not become the disposal site for the world.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Steve Creamer". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

R. Steve Creamer  
Chairman and CEO

Cc: The Honorable Dave Freudenthal  
The Honorable Linda Lingle  
The Honorable Christine Gregoire  
The Honorable Ted Kulongoski  
The Honorable C.L. "Butch" Otter  
The Honorable Sarah Palin  
The Honorable Brian Schweitzer  
The Honorable Jon Huntsman, Jr.



February 21, 2008

Kent J. Bradford, Chairman  
Utah Radiation Control Board  
Westinghouse Electric Company Nuclear Fuel  
10000 West 900 South  
Ogden, Utah 84404-09760

Dear Mr. Bradford:

Thank you for your dedication and hard work on the Radiation Control Board. The Board performs a vital function for our great State of Utah. I understand that at the last Board meeting several members expressed concerns over our pending import license at the Nuclear Regulatory Commission (NRC). I would like to address this issue.

EnergySolutions has no plans to open the gates of Clive for wholesale disposal of the world's nuclear waste. Our proposal to import material from Italy and process it at our Bear Creek facility in Tennessee and dispose of a small fraction of it at Clive will not jeopardize Clive's capacity. Of the material to be imported, approximately 33% would be recycled and formed into metal shield blocks to be reused within the nuclear industry. The remaining material would be processed at Bear Creek and around 8% of this amount would be Class A material disposed of at Clive. This represents less than 1% on average on an annual basis of the volume disposed of at Clive.

We agree with you that Clive is a national asset and we understand our responsibility in protecting this asset. It is essential to maintain Clive's capacity principally for domestic needs and we intend to do that. The Clive facility has sufficient capacity to ensure that these needs are met, today and in the future.

We also recognize that energy security is essential to our nation's national security. We must reduce our dependence on foreign oil, diversify our energy supply and increase ~~energy efficiency and conservation.~~ Nuclear power is a vital component to achieving this important national objective.

As the Nation and the world move to increasing the use of this clean energy source we must recognize that we are one world. The United States should stand ready to provide technical solutions to those countries that are in need. This does not mean that



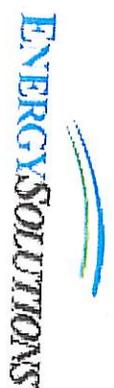
*EnergySolutions*, or any other company in the United States, should be responsible for disposing of the world's nuclear waste.

We also understand the importance of protecting our environment, our local community, and our State. You have my commitment that *EnergySolutions* will consistently and continually discharge this responsibility.

Very truly yours,

A handwritten signature in black ink, appearing to read 'R. Steve Creamer', with a long horizontal line extending to the right.

R. Steve Creamer  
Chairman and CEO



# Safety, Quality and Compliance

- 100% commitment to Safety and Compliance
  - Achieved OSHA Voluntary Protection Programs (VPP) Star Site (MSC in place, BCO applied for)
- Energy Solutions recently recognized by OSHA for safety excellence
- Transportation
  - Approximately 51,000 shipments (in the US) without incident with more than 8 million miles per year
  - Hold DOT highest rating of Satisfactory
  - Numerous Quality Awards
    - National Safety Council
    - American Trucking Association
    - Chemical Waste Transport Institute
    - Interstate Carriers Conference

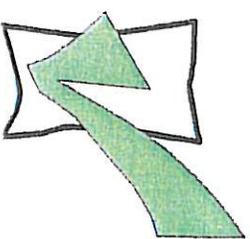


# Energy Solutions is

## Highly Regulated and Audited

ENERGYSOLUTIONS

- Tennessee Department of Environment and Conservation (TDEC) – a minimum of once a year
- TDEC Division of Solid Waste – every year
- Tennessee Air Pollution Control – every year
- Tennessee Publicly Owned Treatment Works (POTW) – every 6 months
- Environmental Protection Agency (EPA) – annually
- Nuclear Regulatory Commission (NRC) – at their pleasure
- Department of Transportation (DOT) – every 5 years
- Nuclear Procurement Issues Committee (NUPIC) – every 2 years
- DOE Consolidated Audit Program (DOECAP) – every year
- DOE Transportation Audit – every 3 years
- American Nuclear Insurers (ANI) – every year
- CHWMEG (non-profit organization Globally Promoting Responsible Waste Stewardship) – every 3 years
- Annual evaluations from many of our customers



# Responsible Corporate Citizen

ENERGYSOLUTIONS

- Community support is very important to EnergySolutions and our employees. The cornerstone of that support comes from our Foundation and its scholarship program.
  - Encourage students to seek degrees in math, science or engineering.
  - Last year 165 scholarship were awarded.
  - The Foundation also donates money to cleaning up the environment.
- Examples of Community Involvement Across the Country:
  - Guadalupe School
  - Chambers of Commerce/Rotary
  - Central Utah Science & Engineering Fair
  - Utah Science Teachers Association
  - Volunteers of America board representation
  - American Lung Association board representation
  - Michael Dunn Center Board representation (handicapped adult school)
  - Oak Ridge Secret City Festival
  - Oak Ridge Children's Museum International Festival
  - Toys for Tots
  - Hanford Engineers Week
  - Tri-City Cancer Center for Women
  - Aiken Academic Booster Club
  - Augusta Arts Council
  - Barnwell County Council

Habitat for Humanity

EnergySolutions  
FOUNDATION



# METALS RECYCLED AT BEAR CREEK\*

Country	Import Authorization	Total Mass	Material Type
US 1993	N/A	56,000 Tons (98%)	Scrap Steel
INTERNATIONAL	Under general license or NRC License IM017	1,250 Tons (2%)	Import Scrap Steel
METALS EXPORTED			
Japan 2006	General License	2,000 tons (2%)	Export Shield Blocks

\* All numbers are approximations as of May, 2008