

November 10, 2009

DRC BOARD MEETING

**Department of
Environmental Quality**

168 N 1950 W

DEQ BLDG #2

Conference Room 101

SALT LAKE CITY, UT

84114-4850

3:00 p.m. – 5:00 p.m.

RADIATION CONTROL BOARD
Department of Environmental Quality (Bldg #2),
Conference Room 101, 168 North 1950 West, Salt Lake City, Utah
3:00 – 5:00 P.M., November 10, 2009

FINAL AGENDA
(Revised November 4, 2009)

- I. Minutes (**Board Action Item**)
 - a. Approval of the Minutes from the October 13, 2009 Board Meeting

- II. Rules
No Items

- III. Radioactive Materials Licensing/Inspection
No Items

- IV. X-Ray Registration/Inspection
No Items

- V. Radioactive Waste Disposal (**Board Action Items**)
 - a. Request from Energy*Solutions* to Address the Board: Proposal Regarding Condition No. 35

 - b. Consideration of Closing Meeting for Discussion of Depleted Uranium Issue

- VI. Uranium Mill Licensing and Inspection
No Items

- VII. Other Division Issues
No Items

- VIII. Public Comment

- IX. **The Next Scheduled Board Meeting: December 8, 2009 (Tuesday), DEQ Bldg #2, Conference Room 101, 168 North 1950 West, Salt Lake City, Utah 3:00 – 5:00 P.M.**

For those individuals needing special assistance in accordance with the Americans with Disabilities Act, please contact Brooke Baker at the Utah Department of Environmental Quality, at 168 North 1950 West, Salt Lake City, UT 84116, Office of Human Resources at (801) 536-4412, TDD (801) 536-4414, or by email at: bbaker@utah.gov.

RADIATION CONTROL BOARD
Department of Environmental Quality (Bldg #2),
Conference Room 101, 168 North 1950 West, Salt Lake City, Utah
3:00 – 5:00 P.M., November 10, 2009

FINAL AGENDA
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 - a. Approval of the Minutes from the October 13, 2009 Board Meeting
Presented by: Chairman Peter A. Jenkins

- II. Rules
No Items

- III. Radioactive Materials Licensing/Inspection
No Items

- IV. X-Ray Registration/Inspection
No Items

- V. Radioactive Waste Disposal (**Board Action Items**)
 - a. Request from EnergySolutions to Address the Board: Proposal Regarding Condition No. 35
Presented by: Craig Galli, Attorney for EnergySolutions
Presentation by: Janelle Eanick, Attorney for HEAL-Utah
Rebuttal: EnergySolutions vs. HEAL-Utah

 - b. Consideration of Closing Meeting for Discussion of Depleted Uranium Issue
Presented by: Chairman Peter A. Jenkins
Board Discussion with Fred Nelson

- VI. Uranium Mill Licensing and Inspection
No Items

- VII. Other Division Issues
No Items

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- V. **Radioactive Waste Disposal (Board Action Item)**
 - a. **Request from EnergySolutions to Address the Board:
Proposal Regarding Condition No. 35**

HEAL - Utah Additional Handout at the Board Meeting

Overview

HEAL Utah and Janelle Eurick of Ray, Quinney, Nebeker, have prepared this memo to spell out the broad powers conferred on the Radiation Control Board by Utah statute and rule. Based on the evidence presented in this memo, we believe the Board has the authority to issue an order that amends EnergySolutions' license to incorporate Condition 35 as currently proposed.

We believe that imposing a license condition in the manner proposed, i.e. through a formal adjudicative proceeding whereby the Board issues an order to amend EnergySolutions' license, may be the best way to proceed.

The Board Has the Expertise and Authority to Protect the Utah Public and Environment from Radiation By Amending a License

Authorities under the Utah Radiation Control Act

The Utah Radiation Control Act ("Act") creates the Radiation Control Board ("Board"), specifies its composition, and delineates its authority.

The Act creates a Board of diverse expertise, comprised of members who are "knowledgeable about radiation protection," including, among others: a physician, a dentist, a health physicist, and a representative of a local health department. *See Utah Code Ann. § 19-3-103(3).*

Furthermore, the Act authorizes the Board to do various things, including: "require submittal of specifications or other information relating to licensing applications" and "issue orders necessary to enforce the provisions of this part" *See Utah Code Ann. § 19-3-103.5(1)(b)*. An "order" is broadly defined under the Utah Administrative Rulemaking Act to mean:

Utah Code Ann. § 63G-3-102. Definitions.

(11) "Order" means an agency action that determines the legal rights, duties, privileges, immunities, or other interests of one or more specific persons, but not a class of persons.

In other words, the Act authorizes the Board to issue orders that determine peoples' legal rights in order to enforce the Act's provisions. A Board order to amend a license to ensure that disposal of depleted uranium meets State and Federal performance objectives would appear to fit this definition.

The ability to issue orders is only one of many Board powers defined in the Act. Besides these explicitly defined powers, the Act also gives other broad authority to the Board to use whatever other powers it may need in order to protect public health and the environment: "The Board may ... (i) exercise all incidental powers necessary to carry out the purposes of this part." *See Utah Code Ann. § 19-3-103.5(1)(i).*

Authorities Under Utah Administrative Code

The Radiation Control Act (“Act”) is implemented primarily by **Utah Rule 313 Radiation Control (“Rules”)**, “to ensure the maximum protection of the public health and safety to all persons at, or in the vicinity of, the place of use, storage, or disposal” of radioactive materials. *See Utah Administrative Code R313-12-2. Purpose and Scope.*

Similar to the Act, the Rules also confer broad authority on the Board to issue orders and impose requirements—even those not explicitly defined in the Rules—to protect Utah’s public health and environment:

R313-12-54. Additional Requirements.

The Board may, by rule, or order, impose upon a licensee or registrant requirements in addition to those established in these rules that it deems appropriate or necessary to minimize any danger to public health and safety or the environment.

And despite EnergySolutions’ claim that only the Executive Secretary can amend a license, other language exists that explicitly shows the license may be amended by Orders issued in accordance with the Act more broadly:

R313-25-12. Conditions of Licenses.

The terms and conditions of the license are subject to amendment, revision, or modification, by reason of amendments to, or by reason of rules, and orders issued in accordance with the terms of the Act and these rules.

License Condition 35, as currently written, appears to be entirely consistent with the above Rule R313-12-54, in that License Condition 35 is an additional requirement imposed by the Board on a licensee in order to minimize danger to public health and the environment.

The Rules also clearly contemplate that the Board can initiate its own formal adjudicative proceedings independent of the Executive Secretary:

R313-17-6. Commencing a Formal Adjudicative Proceeding.

(1) Except as otherwise permitted by emergency orders as described in Section 63G-4-502, all adjudicative proceedings shall be commenced by either:

(a) a Notice of Agency Action in accordance with Section 63G-4-201, if proceedings are commenced by the Board;

...

Given the preceding evidence, we firmly believe that Utah Law and Rules both clearly articulate the Board’s authority to 1) initiate a formal adjudicative proceeding and 2) issue an order that 3) amends EnergySolutions’ license with additional requirements, consistent with protecting Utah’s public health and environment, as contemplated with proposed license condition 35.

EnergySolutions Fails to Demonstrate that the Board Cannot Amend a License

ES Fails to Demonstrate Limitations on Board's authority

EnergySolutions argues in papers filed with the Radiation Control Board that the Board does not have the authority to amend EnergySolutions' license and that only the Executive Secretary does. As evidence to support this argument, EnergySolutions refers to the following Utah laws and rules:

Utah Code Ann. § 19-3-108(2)(c).

The executive secretary may, as authorized by the board: (i) issue licenses, registrations, and certifications, (ii) review and approve plans.

R313-19-61. Modification, Revocation, and Termination of Licenses.

The terms and conditions of all licenses shall be subject to amendment, revision, or modification or the license may be suspended or revoked by reason of amendments to the Act, or by reason of rules, and orders issued by the Executive Secretary.

R313-25-12. Conditions of Licenses.

...
(7) The Executive Secretary may incorporate, by rule or order, into licenses at the time of issuance or thereafter, additional requirements and conditions with respect to the licensee's receipt, possession, and disposal of waste as the Executive Secretary deems appropriate or necessary in order to: (a) protect health or to minimize danger to life or property;

None of the above references says that only the Executive Secretary can amend a license, as asserted by EnergySolutions. Each spells out aspects of the Executive Secretary's powers, but none limits the Board's powers. As discussed earlier in this memo, state statute explicitly grants the Board all incidental (or "subordinate") powers--meaning that any power belonging to the Executive Secretary also belongs to the Board.

EnergySolutions further argues that the Radiation Control Board must follow its own rules and that to do otherwise would constitute "arbitrary and capricious" conduct. We agree. In the present case, the Rules clearly state that the Board can impose additional requirements on licensees, as cited earlier:

R313-12-54. Additional Requirements.

The Board may, by rule, or order, impose upon a licensee or registrant requirements in addition to those established in these rules that it deems appropriate or necessary to minimize any danger to public health and safety or the environment.

This R313-12-54 appears to be a more general and sweeping version of the Executive Secretary's power articulated in R313-25-12 referenced above. Thus, the Board would clearly be following its own rules by issuing an order to amend EnergySolutions' license as currently contemplated by proposed license condition 35.

EnergySolutions' Conduct Actually Supports Board Authority to Amend the License

Perhaps unwittingly, one of EnergySolutions' "proposed pathways" actually supports the Board's authority to amend EnergySolutions' license:

PATHWAY NO.1 (preferred by EnergySolutions): Under Pathway No.1, the Board would withdraw the Notice and approve the September Condition No. 35.

If, under EnergySolutions' legal theory, the Board does not have the ability to amend a license, then the Board would not have the authority to "approve" the license condition under this pathway—especially given that no party has formally appealed the license condition to the Board.

Furthermore, if EnergySolutions truly believed that the Board did not have the authority to approve a change to its license, then it should have challenged the Board's authority earlier. The agenda for the October 13, 2009 Radiation Control Board meeting lists the following under Item V.b: "Consideration of License Amendment for Depleted Uranium disposal at EnergySolutions (Board Action Item)."

If what EnergySolutions now asserts--that the Board cannot approve a change to the license--were true, then a "Board Action Item" to consider a "License Amendment" would have been a meaningless exercise to begin with. After all, according to EnergySolutions' present argument, only the Executive Secretary can approve a change to the license.

Other Issues

Moratorium vs. Approval Conditioned On Acceptable Results of Studies

EnergySolutions may call the proposed license condition 35 a "moratorium" but the condition as currently written still allows EnergySolutions to dispose of depleted uranium upon a showing that such disposal will be protective of Utah's public health and environment.

Administrative Law Judge

While the Act does appear to contemplate Board interaction with an administrative law judge on a "dispositive action," the present proceeding concerning proposed License Condition 35 is not a dispositive action according to the definition:

19-1-301. Adjudicative proceedings.

- (1) As used in this section, "dispositive action" is a final agency action that:
 - (a) a board takes following an adjudicative proceeding on a request for agency action; and
 - (b) is subject to judicial review under Section 63G-4-403.

Because the current proceeding did not arise from a "request for agency action," proposed license condition 35 does not appear to require the use of an administrative law judge.

Rulemaking

We believe that the Board should proceed with the proposed license condition 35. An order to amend the license in this way is appropriate to deal with the unique case of a party (EnergySolutions) who asserts that it already has authorization to accept significant quantities of DU for disposal. No other party is making such a claim.

But the Board may also consider initiating a rulemaking to deal with all people who may wish to dispose of significant quantities of DU in the future.

EnergySolutions asserts that rulemaking regarding DU “is legal but appears infeasible” because of Utah state law that requires a “stringency test” when there is a corresponding Federal Regulation:

Utah Code Ann. § 19-3-104. Registration and licensing of radiation sources by department -- Assessment of fees -- Rulemaking authority and procedure -- Siting criteria.

...
(8) (a) Except as provided in Subsection (9), the board may not adopt rules, for the purpose of the state assuming responsibilities from the United States Nuclear Regulatory Commission with respect to regulation of sources of ionizing radiation, that are more stringent than the corresponding federal regulations which address the same circumstances.

(9) (a) The board may adopt rules more stringent than corresponding federal regulations for the purpose described in Subsection (8) only if it makes a written finding after public comment and hearing and based on evidence in the record that corresponding federal regulations are not adequate to protect public health and the environment of the state.

With regard to disposal of significant quantities of DU, we strongly dispute that there are “corresponding federal regulations which address the same circumstances” as those that would be addressed by a state of Utah rulemaking on this issue. The NRC has admitted in a Federal Register notice that in developing the low-level waste classification system, the impacts of significant quantities of DU were not analyzed:

NUCLEAR REGULATORY COMMISSION [NRC-2009-0257]

Notice of Public Workshop on a Potential Rulemaking for Safe Disposal of Unique Waste Streams Including Significant Quantities of Depleted Uranium

...
The original development of 10 CFR 61.55 did not explicitly consider the impacts resulting from the disposal of significant quantities of depleted uranium from the operation of a commercial uranium enrichment facility

Clearly, a gap exists in federal regulations and that gap is the subject of an ongoing federal rulemaking to address significant quantities of DU and other “unique” waste streams not covered under the original waste classification system.

Therefore, because no corresponding federal regulations exist “which address the same circumstances,” a Utah rulemaking on depleted uranium would not have to meet the stringency test.

Agreement State Status

We assert that the state of Utah has the authority to protect public health and the environment under Utah’s agreement with the NRC, by requiring a performance assessment of sufficient length to capture the peak hazard of waste stream.

The state of Texas requires a performance assessment that captures “peak dose” in order to demonstrate that the public will be protected:

Texas Rule §336.709 Technical and Environmental Analyses

...

A minimum period of 1,000 years after closure or the period where peak dose occurs, whichever is longer, is required as the period of analysis to capture the peak dose from the more mobile long-lived radionuclides and to demonstrate the relationship of site suitability to the performance objective in this section to the performance objective in §336.724 of this title.

This Texas rule was vetted by the NRC without comment. Texas is still an agreement state in good standing with the NRC. If the NRC wishes to comment on the proposed license condition, it may do so during the open comment period.

Conclusion

The Radiation Control Act and associated Administrative Rules together confer broad authority on the Board to impose additional requirements on licensees, in order to protect Utah’s public health and environment. We believe a license condition may be the best way to deal with the unique situation of EnergySolutions, who is the only party claiming it already has permission to dispose of significant quantities of DU.

EnergySolutions fails to demonstrate that only the Executive Secretary can amend a license, and paradoxically appears to be asking the Board to “approve” a prior version of the license condition; this apparently contradicts EnergySolutions’ fundamental claim that the Board does not have authority to amend a license.

Radiation Control Board Authority to Amend a License

A review of the Radiation Control Act
and Radiation Control Rules

November 10, 2009

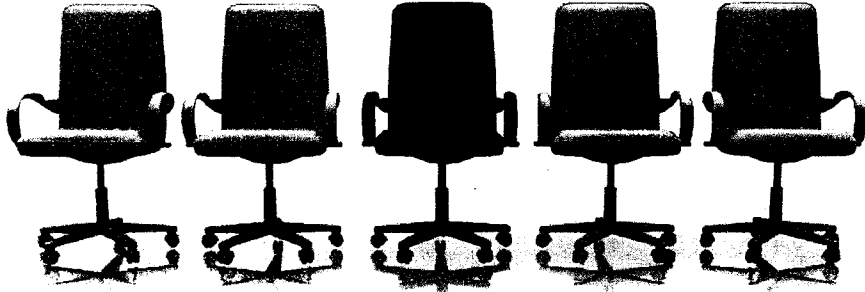
EnergySolutions: Only the Executive Secretary Can Amend the License



R313-19-61. Modification, Revocation, and Termination of Licenses.

The terms and conditions of all licenses shall be subject to amendment, revision, or modification or the license may be suspended or revoked by reason of amendments to the Act, or by reason of rules, and orders issued by the Executive Secretary.

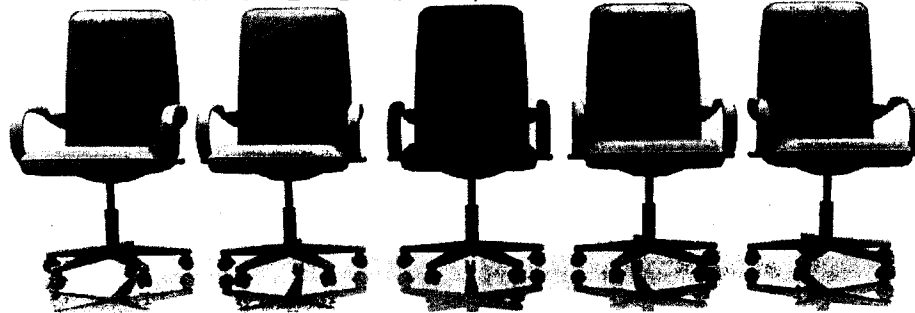
Executive Secretary Issues Licenses As Authorized by the Board



Utah Code Ann. § 19-3-108(2)(c).
The executive secretary may, as authorized
by the board: (i) issue licenses ...



Utah Law and Rule Give the Board Broad Powers



19-3-103.5. Board authority and duties.

(1) The board may:

- (a) require submittal of specifications or other information relating to licensing applications for radioactive materials
- (b) issue orders necessary to enforce the provisions of this part
- (i) exercise all incidental powers necessary to carry out the purposes of this part

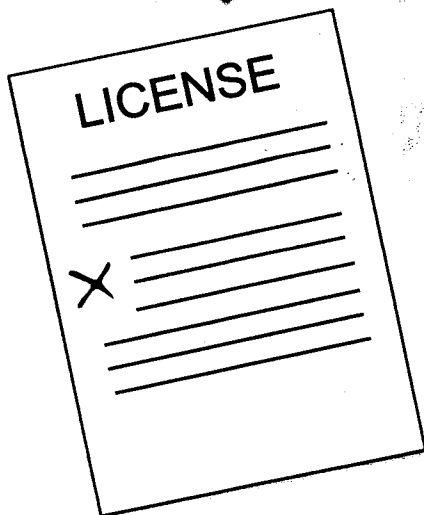
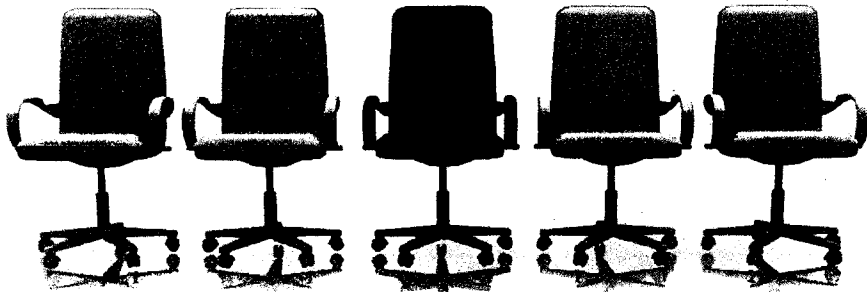
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The terms and conditions of the license are subject to amendment, revision, or modification, by reason of amendments to, or by reason of rules, and orders issued in accordance with the terms of the Act and these rules.

R313-12-54. Additional Requirements.

The Board may, by rule, or order, impose upon a licensee or registrant requirements in addition to those established in these rules that it deems appropriate or necessary to minimize any danger to public health and safety or the environment.

“impose upon a licensee ... requirements in addition to those established in these rules”



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State v. Jeffries, 2009 UT 57, P9

[S]tatute[s] should be construed . . . so that no part [or provision] will be inoperative or superfluous, void or insignificant, and so that one section will not destroy another.

EnergySolutions is Asking for the Board to Approve its Own License Condition

From EnergySolutions' Board submission...

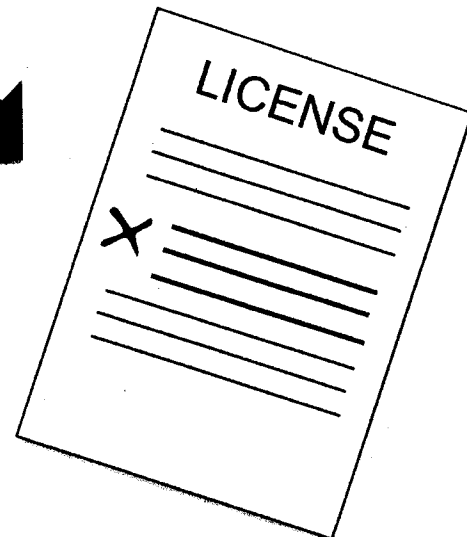
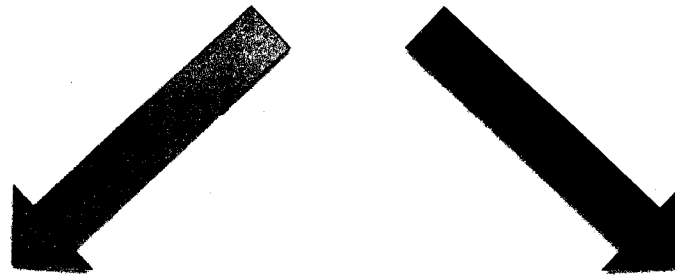
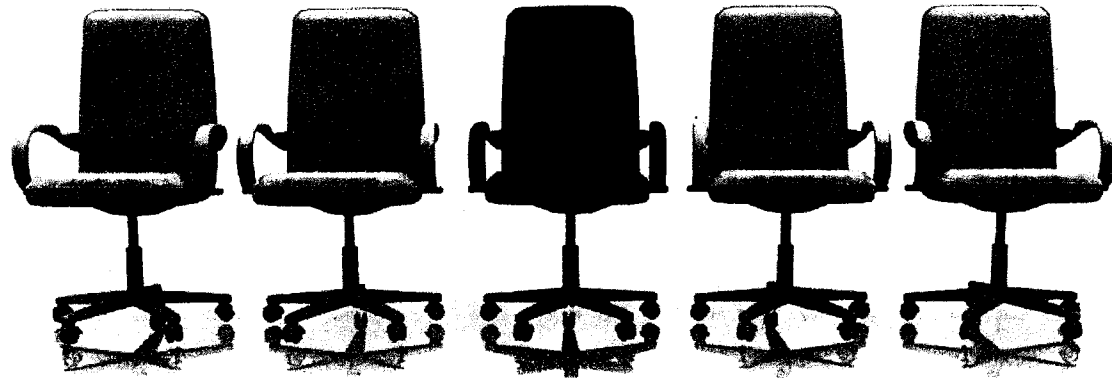
PATHWAY NO. 1 (preferred by EnergySolutions): Under Pathway No. 1, the Board would withdraw the Notice and approve the September Condition No. 35.

From the October 13, 2009 Board meeting agenda...

V. Radioactive Waste Disposal

- b. Consideration of a License Amendment for Depleted Uranium disposal at EnergySolutions (**Board Action Item**)

EnergySolutions is Asking for the Board to Approve its Own License Condition



A Threat to Agreement State Status?

License Condition 35 is Not a Moratorium

- License condition 35 as proposed does not say Depleted Uranium cannot come to Utah
- It does require a performance assessment to ensure that depleted uranium disposal is safe as the hazard grows over time
- Under license condition 35, EnergySolutions could import depleted uranium if disposal is demonstrated to be safe

A Threat to Agreement State Status?

See Texas Example



Texas Rule §336.709 - Technical and Environmental Analyses.

...The analyses shall clearly demonstrate that there is reasonable assurance that the exposures to humans from the release of radioactivity will not exceed the limits specified in §336.724 of this title ...

A minimum period of 1,000 years after closure or the period where peak dose occurs, whichever is longer, is required as the period of analysis to capture the peak dose ...

Conclusions

- Utah Law and Rule give the Board broad power to issue an order to impose additional requirements on a licensee
- Nowhere does it say that only the Executive Secretary can amend a license
- License condition 35 is not a moratorium—it simply requires that disposal would be demonstrated to be safe first

- V. Radioactive Waste Disposal (**Board Action Item**)
 - a. Request from EnergySolutions to Address the Board:
Proposal Regarding Condition No. 35

EnergySolutions Presentation to the Board

Radiation Control Board Authority to Amend a License

A review of the Radiation Control Act
and Radiation Control Rules

November 10, 2009

EnergySolutions: Only the Executive Secretary Can Amend the License



R313-19-61. Modification, Revocation, and Termination of Licenses.

The terms and conditions of all licenses shall be subject to amendment, revision, or modification or the license may be suspended or revoked by reason of amendments to the Act, or by reason of rules, and orders issued by the Executive Secretary.

EnergySolutions claims that **ONLY** the Executive Secretary can amend the license. And while it's true that the rules do say that a license is subject to revision by the Executive Secretary, nothing in the language cited by EnergySolutions says that is the Executive Secretary **AND HE ALONE** who can amend a license.

Executive Secretary Issues Licenses As Authorized by the Board



Utah Code Ann. § 19-3-108(2)(c).
The executive secretary may, as authorized
by the board: (i) issue licenses ...



In fact, if you take a closer look at one of the Rules cited by EnergySolutions, it's clear that the Executive Secretary's power to issue licenses is actually secondary to the Board's authority to issue licenses.

Utah Law and Rule Give the Board Broad Powers



19-3-103.5. Board authority and duties.

(1) The board may:

- (a) require submittal of specifications or other information relating to licensing applications for radioactive materials
- (b) issue orders necessary to enforce the provisions of this part
- (i) exercise all incidental powers necessary to carry out the purposes of this part

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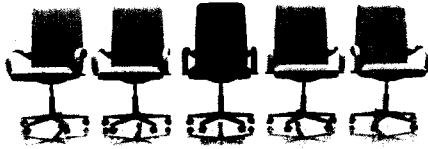
You will notice that EnergySolutions said almost nothing about the powers of the Board; they only looked at the powers of the Executive Secretary. In fact, if you start out by asking the question, "What are the Board's powers?" you will quickly see that Utah statute and Rule confer broad powers on the Board.

First of all, statute empowers the Board to require the submittal of information related to license applications, issue orders, and exercise all incidental powers necessary to carry out the purposes of radiation control Act.

Second, although EnergySolutions suggests that conditions of license are only subject to amendment by the Executive Secretary, the second rule clearly states that licenses are subject to "orders issued in accordance" with the Act and Rules -- So not just orders by the Executive Secretary, but more broadly, Orders issued in Accordance with the Act and Rules.

And third, the Rules clearly state that the Board may issue orders that impose additional requirements on licensees to minimize danger to public health and the environment. So both the Act and the Rules specifically say the Board may issue Orders.

“impose upon a licensee ... requirements in addition to those established in these rules”



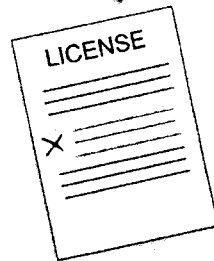
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State v. Jeffries, 2009 UT 57, P9

[S]tatute[s] should be construed . . . so that no part [or provision] will be inoperative or superfluous, void or insignificant, and so that one section will not destroy another.

EnergySolutions said that the Board must comply with its own rules. You can, because Utah Rules explicitly say that the Board can impose additional requirements on a licensee. Take a moment to read the rule. As I read the plain language, issuing an order to amend EnergySolutions' license with proposed condition 35 appears to be entirely within the Board's authority ... as long as the purpose is to "minimize any danger to public health and safety of the environment." Also notice that the Rule does not refer to "imminent danger" to public health and the environment, but simply "danger."

Also, you can see that R313-25-12 clearly says that a license is subject to amendment by any order issued in accordance with the Act and Rules.

Case law tells us that statutory language needs to be read to have a distinct meaning. (Utah 2009, citing Brickyard Homeowners' Ass'n Mgmt. Comm. v. Gibbons Realty Co., 668 P.2d 535, 538 (Utah 1983)(quoting 2A Sutherland Statutory Construction, § 46.06 (1973)). Therefore, to the extent that conflict exists or arises within statutory language, our duty is to interpret the language, affording each provision a meaningful purpose and separating convoluted statutes with a meaningful distinction. Id.

EnergySolutions is Asking for the Board to Approve its Own License Condition

From EnergySolutions' Board submission...

PATHWAY NO. 1 (preferred by EnergySolutions): Under Pathway No. 1, the Board would withdraw the Notice and approve the September Condition No. 35.

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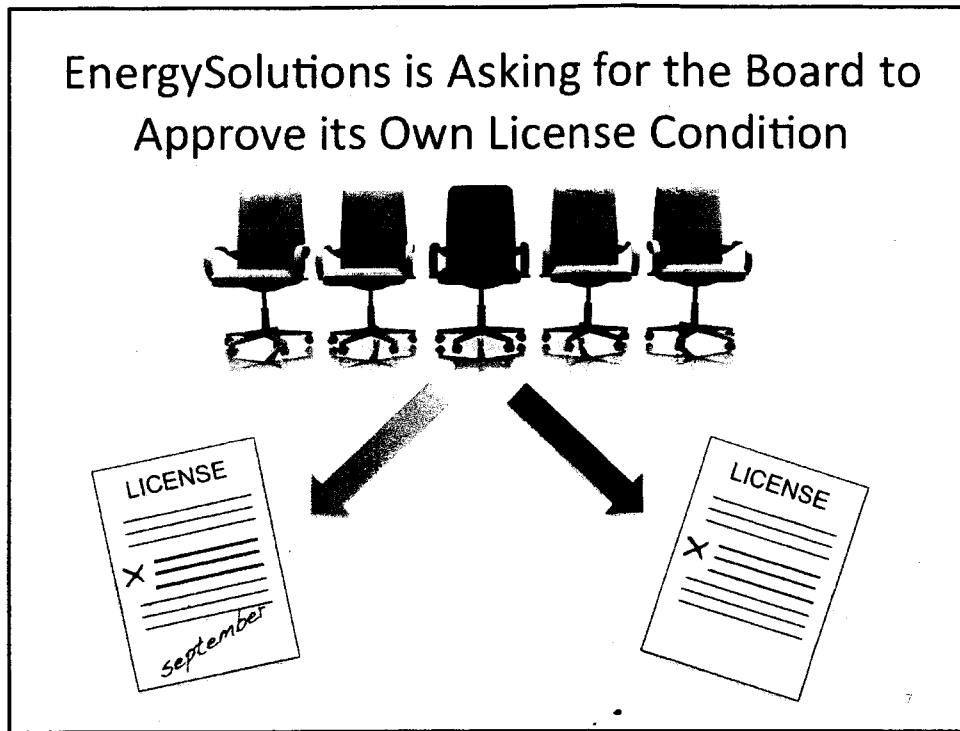
V. Radioactive Waste Disposal

- b. Consideration of a License Amendment for Depleted Uranium disposal at EnergySolutions (Board Action Item)

When you think about it, it's strange that EnergySolutions would be here today asking this Board to approve their own version of license condition 35. You can clearly see above that under their Pathway No. 1, they are asking the Board to approve the September Condition number 35. But in the same breath, EnergySolutions says the Board DOES NOT have the authority to amend a license.

Similarly, it seems strange that EnergySolutions attorneys would not have been bothered by the October 13 meeting agenda, which clearly said the Board intended to take action on whether to approve a license amendment regarding Depleted Uranium Disposal at EnergySolutions. If EnergySolutions is correct, and the Board cannot amend a license, then a Board action item on a license amendment would be a meaningless activity.

EnergySolutions is Asking for the Board to Approve its Own License Condition



When you think about it, it's almost as if EnergySolutions believes the Board DOES have authority to approve a license condition that EnergySolutions likes, but believes the Board DOES NOT have the authority to approve a license condition EnergySolutions does not like.

A Threat to Agreement State Status? License Condition 35 is Not a Moratorium

- License condition 35 as proposed does not say Depleted Uranium cannot come to Utah
- It does require a performance assessment to ensure that depleted uranium disposal is safe as the hazard grows over time
- Under license condition 35, EnergySolutions could import depleted uranium if disposal is demonstrated to be safe

Finally, EnergySolutions argues that what the Board is doing with Condition 35 is essentially a moratorium and consequently, Utah's Agreement State Status is now in jeopardy. However, we do not read license condition 35 as a moratorium. It simply states that depleted uranium disposal needs to be demonstrated as safe before additional significant quantities are allowed for disposal in the state. In other words, it is not a blanket refusal of depleted uranium – it clearly articulates that depleted uranium will be allowed for disposal upon a showing that it is safe.

A Threat to Agreement State Status? See Texas Example



Texas Rule §336.709 - Technical and Environmental Analyses.

...The analyses shall clearly demonstrate that there is reasonable assurance that the exposures to humans from the release of radioactivity will not exceed the limits specified in §336.724 of this title ...

A minimum period of 1,000 years after closure or the period where peak dose occurs, whichever is longer, is required as the period of analysis to capture the peak dose ...

The license condition is phrased similarly to a rule implemented by Texas in 2003. The Texas rule simply says that the period of performance will be 1,000 years or until peak dose, whichever is greater. License Condition 35 says 10,000 year and 1 million years. The idea in both is the same – waste streams that present a long-term hazard must be demonstrated to be safe in the long-term before disposal is allowed. Texas is also an agreement state and the NRC reviewed this rule between 2003 and 2004 and expressed no concern about this language. Texas is still an agreement state in good standing with the NRC.

Conclusions

- Utah Law and Rule give the Board broad power to issue an order to impose additional requirements on a licensee
- Nowhere does it say that only the Executive Secretary can amend a license
- License condition 35 is not a moratorium—it simply requires that disposal would be demonstrated to be safe first

- V. **Radioactive Waste Disposal (Board Action Item)**
 - b. **Consideration of Closing Meeting for Discussion of Depleted Uranium**

Public Comments

Ge chapman – email comments on DU

From: ge chapman <gechapman2@yahoo.com>
To: <dfinerfrock@utah.gov>
Date: 11/9/2009 7:32 PM
Subject: comments on EnergySolutions for Radiation Control Board

It's in the best interest of EnergySolutions and the citizens of Utah to show that the Clive facility is safe for a long time. To that end ES should provide increased funding to you and your staff to assure the citizens of Utah that the Clive facility is safe. Safe not just now but for a thousand years in the future. Providing proper reasonable funded oversight with reasonable detection and standards relying on buried with depleted uranium containers, monitoring and detection systems. This is not just a desert. It is a salt desert. We should be able to monitor the effect of salt and other materials on the stainless steel barrels that contain the uranium hexafluoride. In addition we should be cognizant of potential weather effects on the mounds - how much water is penetrating them. The biggest near term threat is the financial viability of EnergySolutions followed closely by large weather swings that could result in significantly more rain and water in the area, for instance from a super el nino. In summary, the Radiation Control Board should be asking for significantly more funding by ES and they should require real time independent monitoring of barrel mounds and standard containers and they should require that ES prepare contingency plans for implementation if storage containers appear to be threatened.

DIVISION OF RADIATION CONTROL

BOARD MEETING

November 10, 2009

**ADDITIONAL
SUPPLEMENTS**

DRC BOARD FILE

MINUTES
OF
THE UTAH RADIATION CONTROL BOARD

October 13, 2009

Department of Environmental Quality, DEQ Building #2

Conference Room 101

168 N 1950 W

Salt Lake City, Utah 84114-4850

BOARD MEMBERS PRESENT

Peter A. Jenkins, M.S., CHP, Chair
Dane L. Finerfrock, Executive Secretary
Scott Bird
Patrick D. Cone (Attended by Conf. Call)
Frank D. DeRosso, MSPH, CIH
Christian K. Gardner
Colleen Johnson
Edd Johnson
Douglas S. Kimball, DMD
Joseph K. Miner, M.D., MSPH
Amanda Smith, DEQ Executive Director
John W. Thomson, M.D.

BOARD MEMBERS ABSENT/EXCUSED

Elizabeth Goryunova, M.S., Vice Chair
David A. Tripp, Ph.D.

DRC STAFF/OTHER DEQ MEMBERS

PRESENT

Edith Barker, DRC Staff
Mario A. Bettolo, DRC Staff
Bill Craig, DRC Staff
David Esser, DRC Staff
Phil Goble, DRC Staff
John Hultquist, DRC Section Manager
Craig Jones, DRC Section Manager
Laura Lockhart, Attorney, Atty General's Office
Yoli Necochea, DRC Staff
Fred Nelson, Attorney, Atty General's Office
Loren Morton, DRC Section Manager
Thomas Rushing, DRC Staff

DRC STAFF/OTHER DEQ MEMBERS

PRESENT - CONTINUED

Donna Spangler, PIO, DEQ – PPA Staff

PUBLIC

Bob Archibald, Concerned Citizen
Robert Baird, URS
Krista Bowers, Concerned Citizen
Jeff Clay, Concern Citizen
Amy O'Conner
Ed Firmage, Concern Citizen
Norma Franklin, Concern Citizen
Martin Gelman, HEAL-Utah
Jason Grenewold, Concern Citizen
Sandra Hays, HEAL-Utah
Maxine Kaiser, HEAL-Utah
Mark LeDoux, EnergySolutions
Karen Langley, University of Utah
Sean McCandless, EnergySolutions
Arthur Morris, HEAL-Utah
James O'Neal, Concern Citizen
Daniel Shrum, EnergySolutions
Eric Spreng, HEAL-Utah
Jim Sweet, GammaWest
Christopher Thomas, HEAL-Utah
Rachel White, Concerned Citizen
Cherry Wong, Women Concerned

Public Attendance Sheet
Utah Radiation Control
Board Meeting
 DEQ Bldg. #2, Conf. Room 101
 168 N 1950 W, Salt Lake City, UT 84114-4850
 3:00 - 5:00 p.m.
 November 10, 2009
Please Print

NAME (Please Print)	Organization/Affiliation Phone Number and Email Address:	Speak: Yes or No? If Yes, which Agenda Item would you like to Address, List Item No.:
1. Jeri Roos	roosjhr@aol.com 801-292-1460	no
2. BRAD R. Thomas	icaknow@yahoo.com 801-870-3116	no yes v.a. yield
3. Dan Shrum	Energy Solutions 801-649-2000	NO
4. THOMAS MAGETTE	ENERGY SOLUTIONS	No
5. Eric Spreng	HEAL Utah	No
6. Romaine Marshall	Holland & Hart	No
7. Sean McCandless	Energy Solutions	No
8. Mark Ledoux	Energy Solutions	No
9. Christopher Thomas	HEAL Utah	Yes V.a.
10. Janelle Enrick	HEAL Utah RQN	Yes V.a. yield
11. KRISTA BOWERS	concerned citizen	Yes V.a. ✓
12. Vanessa Pierce	HEAL Utah 801-344-5110 vanessa@health.utah.gov	NO
13. Wasmu Franklin	franklin@biopgy.utah.edu?	
14. Teresa Tate	Todd County resident	yes V.A. ✓
15. Ed Firmago Jr.	self	Yes ✓
16.		
17.		
18.		
19.		

Public Attendance Sheet

Utah Radiation Control

Board Meeting

DEQ Bldg. #2, Conf. Room 101

168 N 1950 W, Salt Lake City, UT 84114-4850

3:00 – 5:00 p.m.

November 10, 2009

Please Print

NAME (Please Print)	Organization/Affiliation: Phone Number and Email Address:	Speak: Yes or No? If Yes, which Agenda Item would you like to Address, List Item No.:
20. Robert Baird	URS/WD	No
21. Michael Cowley	myself	Yes
22. James O'Neal	citizen	yes V
23. David Esser	DRC	No
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✓
✓

Public Attendance Sheet

Utah Radiation Control

Board Meeting

DEQ Bldg. #2, Conf. Room 101

168 N 1950 W, Salt Lake City, UT 84114-4850

3:00 – 5:00 p.m.

November 10, 2009

Please Print

NAME (Please Print)	Organization/Affiliation Phone Number and Email Address:	Speak: Yes or No? If Yes, which Agenda Item would you like to Address, List Item No.:
39. Charles Judd	self	Yes v ✓
40. Steve Nelson	Self	yes ✓
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Public Attendance Sheet

Utah Radiation Control

Board Meeting

DEQ Bldg. #2, Conf. Room 101

168 N 1950 W, Salt Lake City, UT 84114-4850

3:00 - 5:00 p.m.

November 10, 2009

Please Print

NAME (Please Print)	Organization/Affiliation Phone Number and Email Address:	Speak: Yes or No? If Yes, which Agenda Item would you like to Address, List Item No.:
58. ELLEN HARTZ	HEAL Utah	NO
59. MARTIN JEDLIKA	SUNDAVILLE 5325 OLD RANNEY RD	Yes absent
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Public Attendance Sheet
Utah Radiation Control
Board Meeting
 DEQ Bldg. #2, Conf. Room 101
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 3:00 - 5:00 p.m.
 November 10, 2009
Please Print

NAME (Please Print)	Organization/Affiliation Phone Number and Email Address:	Speak: Yes or No? If Yes, which Agenda Item would you like to Address, List Item No.:
96. Jim Sweet	Gammawest	—
97. Clare Gilmore	HEAL	—
98. Jeb Berg	Caranagh Services	
99. David Brown	PRIVATE CITIZEN	
100. Ruthie Brown	" "	
101. Claire Medley	" "	yes ✓
102. James Holtkamp	Holland & Hart	No
103. Craig Galli	Holland & Hart	yes
104. Michael Fife	Private Citizen	no
105. Amy Conner	DESERT NEWS	no
106.		
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Public Attendance Sheet
Utah Radiation Control
Board Meeting
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 3:00 – 5:00 p.m.
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Please Print

NAME (Please Print)	Organization/Affiliation Phone Number and Email Address:	Speak: Yes or No? If Yes, which Agenda Item would you like to Address, List Item No.:
77. Cherry Wong	Women Concerned	NO
78. See Cortez	self	NO
79. Carolyn Rutan	concerned citizen	No
80. Rob DeJure	HEAL UTAH	NO
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RADIATION CONTROL BOARD
Department of Environmental Quality (Bldg #2),
Conference Room 101, 168 North 1950 West, Salt Lake City, Utah
3:00 – 5:00 P.M., November 10, 2009

TENTATIVE AGENDA

- I. Minutes (**Board Action Item**)
 - a. Approval of the Minutes from the October 13, 2009 Board Meeting
- II. Rules (**Board Action Item**)
 - a. Rulemaking: Hand Held Portable Dental X-Ray Systems, R313-28-80
- III. Radioactive Materials Licensing/Inspection
No Items
- IV. X-Ray Registration/Inspection
No Items
- V. Radioactive Waste Disposal (**Board Action Item**)
 - a. Request from EnergySolutions to Address the Board: Proposal Regarding Condition No. 35
- VI. Uranium Mill Licensing and Inspection
No Items
- VII. Other Division Issues (**Board Information Item**)
 - a. Division Activities Report
- VIII. Public Comment
- IX. **The Next Scheduled Board Meeting: December 8, 2009 (Tuesday)**, DEQ Bldg #2, Conference Room 101, 168 North 1950 West, Salt Lake City, Utah 3:00 – 5:00 P.M.

For those individuals needing special assistance in accordance with the Americans with Disabilities Act, please contact Brooke Baker at the Utah Department of Environmental Quality, at 168 North 1950 West, Salt Lake City, UT 84116, Office of Human Resources at (801) 536-4412, TDD (801) 536-4414, or by email at: bbaker@utah.gov.

- I. Minutes (Board Action Item)
 - a. Approval of the Minutes from the October 13, 2009 Board Meeting

- II. Rules (Board Action Item)
 - a. Rulemaking: Hand Held Portable Dental X-Ray Systems, R313-28-80

- III. Radioactive Materials Licensing/ Inspection
 - No Items

- IV. X-Ray Registration/Inspection
 - No Items

- V. Radioactive Waste Disposal (Board Action Item)
 - a. Request from EnergySolutions to Address the Board: Proposal Regarding Condition No. 35

- VI. Uranium Mill Licensing and Inspection
 - No Items

- VII. Other Division Issues (Board Info Item)
 - a. Division Activities Report

- VIII. Public Comment

- IX. Other Issues:
The Next Scheduled Board Meeting: December 8, 2009 (Tuesday), DEQ Bldg #2, Conference Room 101, 168 North 1950 West, Salt Lake City, Utah, 3:00 – 5:00 P.M.

- I. **Minutes (Board Action Item)**
 - a. **Approval of the Minutes from the October 13, 2009 Board Meeting**

From: <Edsqared@aol.com>
To: <ynecochea@utah.gov>
Date: 10/14/2009 12:01 PM
Subject: Re: Corrections to the September 22, 2009 DRC Board Minutes

Yoli-

I think the corrections I referred to were related to the three spellings of Duncan White's name in the minutes. Check it out-- **Duncan**, **Dunkin**, and **Dunken**, and I am sure Duncan is correct.

As I said yesterday, it is a piddley item, but let's be correct when we spell someone's name.

Thanks,

Edd

In a message dated 10/14/2009 10:04:55 A.M. Mountain Daylight Time, ynecochea@utah.gov writes:

Hi Edd:

Could you sent the corrections you wanted corrected to the Minutes of September 22, 2009, so that I can make the corrections and get them posted on the DRC Web Page.

Thanks - yoli_necochea

Correct spelling

↳ name:

*Ⓐ Duncan
White*

*Corrections
Request by
Edd Johnson
to Sept 22, 2009
Minutes
ZM*

MINUTES
OF
THE UTAH RADIATION CONTROL BOARD

October 13, 2009

Department of Environmental Quality, DEQ Building #2

Conference Room 101

168 N 1950 W

Salt Lake City, Utah 84114-4850

BOARD MEMBERS PRESENT

Peter A. Jenkins, M.S., CHP, Chair
Dane L. Finerfrock, Executive Secretary
Scott Bird
Patrick D. Cone (Attended by Conf. Call)
Frank D. DeRosso, MSPH, CIH
Christian K. Gardner
Colleen Johnson
Edd C. Johnson
Douglas S. Kimball, DMD
Joseph K. Miner, M.D., MSPH
Amanda Smith, Acting DEQ Executive Director
John W. Thomson, M.D.

BOARD MEMBERS ABSENT/EXCUSED

Elizabeth Goryunova, M.S., Vice Chair
David A. Tripp, Ph.D.

DRC STAFF/OTHER DEQ MEMBERS PRESENT

Mario A. Bettolo, DRC Staff
Bill Craig, DRC Staff
David Esser, DRC Staff
Phil Goble, DRC Staff
John Hultquist, DRC Section Manager
Craig Jones, DRC Section Manager
Laura Lockhart, Attorney, Atty General's Office
Yoli Necochea, DRC Staff
Fred Nelson, Attorney, Atty General's Office
Loren Morton, DRC Section Manager
Donna Spangler, PIO, DEQ – PPA Staff

PUBLIC

Bob Archibald, Concerned Citizen
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Krista Bowers, Concerned Citizen
Jeff Clay, Concern Citizen
Amy O'Conner
Ed Firmage, Concern Citizen
Norma Franklin, Concern Citizen
Martin Gelman, HEAL-Utah
Jason Grenewold, Concern Citizen
Sandra Hays, HEAL-Utah
Maxine Kaiser, HEAL-Utah
Mark LeDoux, EnergySolutions
Karen Langley, University of Utah
Sean McCandless, EnergySolutions
Arthur Morris, HEAL-Utah
James O'Neal, Concern Citizen
Daniel Shrum, EnergySolutions
Eric Spreng, HEAL-Utah
Jim Sweet, GammaWest
Christopher Thomas, HEAL-Utah
Rachel White, Concerned Citizen
Cherry Wong, Women Concerned

GREETINGS/MEETING CALLED TO ORDER

Peter A. Jenkins, Chairman, called the board meeting to order at 3:02 p.m. and welcomed the board members and the public. He indicated that if the public wished to address any items on the agenda, they should sign the public sign-in sheet. Those desiring to comment would be given an opportunity to address their concerns during the comment period.

I. APPROVAL OF MINUTES (Board Action Item)

a. Approval of the Minutes from the September 22, 2009 Board Meeting

Peter A. Jenkins, Chair, asked the board members if they had any corrections to the minutes from September 22, 2009.

Edd C. Johnson said that he had found some typos. He said that he did not have the corrections with him. Chairman Jenkins asked Mr. Johnson if he could submit his corrections to the Executive Secretary.

**MOTION MADE BY CHRISTIAN K. GARDNER TO APPROVE
THE MINUTES OF SEPTEMBER 22, 2009 WITH THE
REQUESTED CORRECTIONS**

MOTION SECONDED BY SCOTT BIRD

MOTION CARRIED AND PASSED

II. RULES No Items

III. RADIOACTIVE MATERIALS LICENSING/INSPECTION

a. Exemption from Rules on Procurement and Transfer of Technetium-99m and Calibration of Instrumentation Using Technetium-99m

Craig Jones, Section Manager, informed the Board on the proposed exemption. Mr. Jones gave some background information and explained that molybdenum-99 is a fission produced radionuclide. When it decays the molybdenum atom transforms and becomes Technetium-99m. Mr. Jones said that Technetium-99m is the most commonly used radionuclide in nuclear medicine. He said that the radionuclide Technetium-99m is beneficial to nuclear medicine.

Mr. Jones said that since December 2007 the medical industry has experienced intermittent shortages of molybdenum-99. Mr. Jones said the shortages had occurred due to unplanned nuclear reactor outages. He said the outages end up being significant because the world's supply of molybdenum-99 is primarily produced by five aging reactors. They are located in Canada, Europe, and South Africa. He said the main supplier to the United States came from Canada.

Currently, there have been major shut downs from generator reactors that are producers and who supply molybdenum-99, and technetium-99. This is a concern because the United States receives 50 percent of its supply of molybdenum-99, and technetium-99m for nuclear medicine from the generator reactors. He said what this means is that the supply-chain for fusion produced radionuclides is fragile, and customers in the United States may face substantial shortages of Technetium-99m.

Mr. Jones said that, in order to deal with shortages, the U.S. Nuclear Regulatory Commission (NRC) has issued an exemption from some of the requirements in Title 10 of the Code of Federal Regulations. He said the NRDC exemptions had been issued to the medical use licensees to assure that the available supply of Technetium-99m is used for patient health care.

The Division of Radiation Control's staff has prepared an exemption for Utah's medical use licensees based upon the NRC's exemption. Mr. Jones said there are 49 licensees in Utah that are required to use and perform procedures in human use, and they use Technetium-99 in their radioactive material license--and they will be affected by this decision.

Mr. Jones said that provisions of Subsection R313-12-55, Exemptions, allow the Radiation Control Board, upon its own initiative, to grant exemptions or exceptions from requirements stated in R313. Mr. Jones asked the Board that they also approve two additional changes to the modified exemption, they were:

1. Exemption, For All R313-32 Licensees:
Number 2, first sentence which reads: "Notwithstanding the requirements in R313-32 . . . or dosages of technetium-99m radioactive drugs, from another **NRC-licensed** medical use licensee . . ." Change to read: ". . . from another **NRC or Agreement State-licensed** medical use licensee . . ."
2. Exemption, For All R313-32 Licensees:
Number 2, second sentence which reads: "The licensee shall certify in writing that it is receiving reduced **qualities** of technetium-99m . . ." Change to read: ". . . reduced **quantities** . . ."

Mr. Jones asked the Board to approve the changes that had been submitted along with the two additional changes.

RECOMMENDATION:

The Executive Secretary recommended that the Board grant exemptions to all medical use licensees during times of molybdenum-99 shortages in the United States. The medical use licensees will be granted exemptions from

the requirements of R313-22-75(9) as well as 10 CFR35.60(b), CFR 35.100(a)(1) and 10 CFR35.200(a)(1), which have been incorporated by reference in R313-32.

Questions by the Board:

Mr. Jones asked the board members, if they had any questions. He discussed and answered their questions.

MOTION MADE BY EDD JOHNSON THAT THE BOARD APPROVE THE EXEMPTION AND INCLUDE THE TWO ADDITIONAL CHANGES

SECONDED BY JOHN W. THOMSON

MOTION CARRIED AND PASSED UNANIMOUSLY

**IV. X-RAY REGISTRATION/INSPECTION
No Items**

V. Radioactive Waste Disposal

a. Request from Charles Judd to Address the Board on Disposal Capacity at EnergySolutions (Board Information Item)

Charles Judd informed the Board on this item. A summary of the information provided by Charles Judd is listed below. A copy of presentation made to the Board is attached.

Pumpkins and Tray with Beans/Representing:

- (1) First Pumpkin – LLP, Long Life of Plant contracts
- (2) Second Pumpkin – Government Contracts will bring in 10 million cubic feet of waste or about .3 million
- (3) Third Pumpkin -- Foreign Waste no signed agreements, but EnergySolutions will try to put waste there
- (4) Fourth Pumpkin -- Depleted Uranium (DU) and Clean-up Site waste
- (5) Tray with Beans – Additional waste in Section 32

b. Consideration of License Amendment for Depleted Uranium disposal at EnergySolutions (Board Action Item)

Peter Jenkins, Chairman, informed the Board that Fred Nelson, Utah Attorney General's Office, would be advising the Board on this item.

Fred Nelson, Attorney, advised the Board about the State Administrator's Procedures Act requirements. Mr. Nelson asked the board members to recall that at the last board meeting the Board directed the Executive

Secretary to prepare a draft of the license amendment for the EnergySolutions' license dealing with Depleted Uranium (DU). The Board asked the Executive Secretary to bring the draft license-amendment for consideration to the October 2009 board meeting.

Mr. Nelson explained that the Board was taking action on this. The Board should consider the text of the license amendment and whatever changes the Board wanted to make to the license amendment today. Mr. Nelson explained that under the Administrator's Procedures Act the Board may approve the license amendment. After approval, he explained that one of the board members could make a motion, and issue a "Notice of Agency Action" to adopt the license amendment. Final action on the license amendment would happen at the December 2009 meeting--after the license amendment has been through public comment and final determination has been met.

Peter A. Jenkins made a motion that the Board members first vote as to whether or not they wanted to change the language in the license condition. The board members voted to make the necessary changes to the license condition.

Chairman Jenkins advised the Board as to how he would like the Board to proceed with Condition 35. His advice to the Board was that they go over Condition 35, and approve and vote for each section or paragraph as they see the changes that are necessary--he will ask the Board to approve or vote on each section, or paragraph in the condition. Once the Board has the license amendment as they would like it to read, the Board will accept it as "Notice of Agency Action" for the upcoming month.

Chairman Jenkins motioned that the Board open this action item for discussion. The Board proceeded and discussed several issues on the condition items. They discussed: burial depth, the performance assessment, revisions to the embankment design, the remediation, and the surety funds.

After much discussion, Chairman Jenkins said that he would like to hear comments from the public on this issue. The following members of the public addressed the Board on the issue of Depleted Uranium (DU):

PUBLIC COMMENTS:

- (1) **Christopher Thomas, HEAL-Utah** (See Attached Comments)
- (2) **James O'Neal, Concerned Citizen from Provo, Utah**
(See Attached Comments)
- (3) **Ed Firmage Jr., Concerned Citizen** (See Attached Comments)
- (4) **Bob Archibald, Concerned Citizen from Sandy, Utah**
(See Attached Comments)

After hearing from each member of the public on this issue of DU, Chairman Jenkins said that the Board would discuss each section of Condition 35 and make changes (**Condition 35, as it was submitted to the Board, is attached**). He said that before the Board continued their discussion and went any further, he would like to poll the Board on how they should handle the Draft Document, and whether or not the Board would like to put language in the license condition that will say that the "Performance Assessment" must be completed and compatibility must be demonstrated before DU waste is accepted.

The board members voted on this action as follows:

Scott Bird – No
Patrick D. Cone – Yes
Frank DeRosso – Yes
Christian K. Gardner – Yes
Peter A. Jenkins - Abstention
Colleen Johnson – Yes
Edd Johnson – Yes
Douglas S. Kimball – Yes
Joseph K. Miner – Yes
John W. Thomson – Yes

Vote: 8 Yes's; 1 No; and 1 Abstention

MOTION MADE BY PETER A. JENKINS THAT THE BOARD IS IN FAVOR OF REQUIRING A PERFORMANCE ASSESSMENT AND THAT THE PERFORMANCE ASSESSMENT IS APPROVED BY THE EXECUTIVE SECRETARY BEFORE DU WASTE IS ACCEPTED

MOTION CARRIED AND PASSED

The Board continued to discuss and vote on the conditions. After much discussion, Daniel Shrum, *EnergySolutions*, came forward and questioned whether the Board was following the correct procedure. Mr. Shrum, *EnergySolutions*, said that at the last board meeting, *EnergySolutions* agreed that they would incorporate the conditions that were mentioned in their letter—the letter provided to the Board at that meeting. Mr. Shrum said that the Board was now requiring that *EnergySolutions* remove the Depleted Uranium (DU), and the license conditions were changing significantly.

Chairman Jenkins asked for advice from Fred Nelson, Utah Attorney General's Office. Fred Nelson said that although the action in the conditions were different from what *EnergySolutions* had originally

agreed to in the letter, it was not outside of the Board's prerogative to move forward on issuing a "Notice of Agency Action." The Board could seek comments from the public and develop the final wording in the license condition and go forward to issue a "Notice of Agency Action." The Board could vote on the final license conditions at the next board meeting.

The Board continued with the discussion on changes to the license condition, and the Board also discussed sending the license condition out for public comment. They agreed on a 30-day comment period. After the public comment, the Board could choose to make additional changes. The final license condition would be voted on at the December 2009 board meeting.

The following are the Board's final changes to the license condition:

1. Condition 35. A. Background: There was a suggested change, the board members voted and the majority agreed that no changes were necessary. The condition will remain the same as written.
2. Condition 35. B. Burial Depth: There were no changes. The condition will remain the same as written.
3. Condition 35. C. Performance assessment (as submitted): A performance assessment, in general conformance with the approach used by the Nuclear Regulatory Commission (NRC) in SECY- 08-0147, shall be submitted for Executive Secretary review and **approved no later than December 31, 2010**. The performance assessment shall be revised as needed to reflect ongoing guidance and rulemaking from NRC. For purposes of this performance assessment, the compliance period will be a minimum of 10,000 years. Additional simulations will be performed for a minimum of a 1,000,000-year time frame for qualitative analysis.

Condition 35. C. Performance assessment (changed to read): A performance assessment, in general conformance with the approach used by the Nuclear Regulatory Commission (NRC) in SECY- 08-0147, shall be submitted for Executive Secretary review and **be approved prior to receipt of significant quantities (more than 1 metric ton) of DU waste**. The performance assessment shall be revised as needed to reflect ongoing guidance and rulemaking from NRC. For purposes of this performance assessment, the compliance period will be a minimum of 10,000 years. Additional simulations will be performed for a minimum of a 1,000,000-year time frame for qualitative analysis.

4. Condition 35. D. Revised disposal embankment design: There were no changes. The condition will remain the same as written.
5. Condition 35. E. Remediation (as submitted): If, following the completion of NRC's and DRC's regulatory processes described in paragraph 35A, the disposal of DU as preformed after the date of this license condition would not have met the requirements of those new regulatory and performance standards, the facility will undertake remediation to ensure that those new regulatory and performance standards are met, or if that is not possible, shall remove the DU and transport it off-site to licensed facility. Before accepting **substantial** quantities of DU for disposal after the effective date of this license condition, EnergySolutions shall provide evidence that it is feasible to meet this **condition 35.E**. Compliance with this provision is required even if EnergySolutions has complied with paragraph 35D.

Condition 35. E. Remediation (changed to read): If, following the completion of NRC's and DRC's regulatory processes described in paragraph 35A, the disposal of DU as preformed after the date of this license condition would not have met the requirements of those new regulatory and performance standards, the facility will undertake remediation to ensure that those new regulatory and performance standards are met, or if that is not possible, shall remove the DU and transport it off-site to licensed facility. Before accepting **significant** quantities of DU for disposal after the effective date of this license condition, EnergySolutions shall provide evidence that it is feasible to meet this **condition**. Compliance with this provision is required even if EnergySolutions has complied with paragraph 35D.

6. Condition 35. F. Surety: There were no changes. The condition will remain the same as written.

Peter A. Jenkins, Chairman, said that he would entertain a motion from the Board to accept the changes, and to issue a Notice to Propose Agency Action with a 30-day public comment period. The changes will be an action item at the December 2009 board meeting.

MOTION MADE BY JOHN W. THOMSON TO ACCEPT THE BOARD'S CHANGES TO THE LICENSE CONDITION AS REQUESTED BY THE CHAIRMAN, AND TO ISSUE A NOTICE TO PROPOSE NOTICE OF AGENCY ACTION WITH A 30 DAY PUBLIC COMMENT, AND FOR IT TO BE AN ACTION ITEM AT THE DECEMBER 2009 BOARD MEETING

SECONDED BY CHRISTIAN K. GARDNER

CHAIRMAN JENKINS ASKED FOR A ROLL CALL ON THE MOTION. THE BOARD VOTED AS FOLLOWS:

Scott Bird, Abstained
Patrick D. Cone, Yes
Frank D. DeRosso, Yes
Christian K. Gardner, Yes
Peter A. Jenkins, Abstained
Colleen Johnson, No
Edd Johnson, Yes
Douglas S. Kimball, Yes
Joseph K. Miner, Yes
John W. Thomson, Yes

Vote: 7 Yes'; and 1 No; 2 Abstention

MOTION PASSED AND CARRIED

VI. URANIUM MILL LICENSING AND INSPECTION
No Items

VII. OTHER DIVISION ISSUES (Board Information Item)

a. Division Activities Report

Peter A. Jenkins, Chairman, informed the Board that the U.S. Nuclear Regulatory Commission has been directed to make recommendations on the blending issue. The information has been included in the additional supplements in the board packet.

Chairman Jenkins asked the Board if they had any question on the Division Activities Report. John W. Thomson asked about the Notice of Violation with a Severity Level III. He asked what the action meant to the Central Utah Clinic, and how would they be impacted by this violation.

Craig Jones, Section Manager, explained to the Board that the Executive Secretary provided information about significant enforcement actions. Mr. Jones said that a violation that is characterized at the Severity Level III or higher, meaning Severity Level I or II, is what the Board has requested that the Division report back to the Board. Mr. Jones said that the licensee had responded to this Notice of Violation. He said there were no Civil Penalties that were proposed, and the corrective action has been accepted by the Executive Secretary. He said that the facility is now

continuing with their use of their radioactive-material license, in accordance with the commitments and representations they made.

Edd Johnson said that he made a comment at the last Board meeting, and his comment came out wrong in last Sunday's editorial on October 11, 2009, in the Salt Lake Tribune, he read: "The NRC already erred when it classified depleted uranium (DU) as Class A, which is contaminated material that sheds its radioactivity quickly and poses no risk to humans a hundred years later." Mr. Johnson asked, "Where in the world did this ever come from?"

Mr. Johnson said that he did hear Steve Cramer, the President of EnergySolutions, comment and allude to that, but it should not impact everybody's interpretation of what this material is. He said, "nothing out there is going to decay in a 100 years--nothing. I vented my splint!"

VIII. PUBLIC COMMENT

Please refer to Item V. b., page 5

- IX. The Next Scheduled Board Meeting: November 10, 2009 (Tuesday), DEQ Bldg #2, Conference Room 101, 168 North 1950 West, Salt Lake City, Utah 3:00 – 5:00 P.M. THE BOARD MEETING ADJOURNED AT 5:50 P.M.**

Condition 35. Depleted Uranium:

- A. Background: The U.S. Nuclear Regulatory Commission (NRC) has acknowledged some inadequacies in its past analyses and possibly its current regulatory structure with respect to disposal of substantial quantities of depleted uranium (DU). As a result, it has started a rulemaking process to determine the conditions under which DU and other unique wastes may be safely disposed of in near surface facilities. NRC has stated that new regulatory standards and guidance will be the likely result from that rulemaking process, and that new performance assessments will likely also be required. Rulemaking by the Division of Radiation Control (DRC) would also likely be follow. EnergySolutions has indicated to the Division that it would prefer not to wait until the completion of the NRC's and DRC's rulemaking processes or until completion of the resulting performance analysis that will likely be required before it begins to dispose of depleted uranium at the Clive facility. The additional license conditions in this Condition 35 are therefore required.
- B. Burial Depth: The Licensee shall place all wastes with DU concentrations greater than 5 percent (by weight) a minimum of 10 feet below the top of the cover.
- C. Performance assessment: A performance assessment, in general conformance with the approach used by the U.S. Nuclear Regulatory Commission (NRC) in SECY-08-0147, shall be submitted for Executive Secretary review and approval no later than December 31, 2010. The performance assessment shall be revised as needed to reflect ongoing guidance and rulemaking from NRC. For purposes of this performance assessment, the compliance period will be a minimum of 10,000 years. Additional simulations will be performed for a minimum of a 1,000,000-year timeframe for qualitative analysis.
- D. Revised disposal embankment design: If the performance assessment specified in paragraph 35.C indicates that changes to disposal operations and cover design are necessary to ensure compliance with the requirements of 10 CFR Part 61 or Utah Administrative Code R313, EnergySolutions will provide a revised design that does meet those requirements, for all wastes that have been and are reasonably anticipated to be disposed of at the facility, within 180 days of Executive Secretary approval of the performance assessment.
- E. Remediation: If, following the completion of NRC's and DRC's regulatory processes described in paragraph 35A, the disposal of DU as performed after the date of this license condition would not have met the requirements of those new regulatory and performance standards, the facility will undertake remediation to ensure that those new regulatory and performance standards are met, or, if that is not possible, shall remove the DU and transport it off-site to licensed facility.

Before accepting substantial quantities of DU for disposal after the effective date of this license condition, EnergySolutions shall provide evidence that it is feasible to meet this condition 35. E . Compliance with this provision is required even if EnergySolutions has complied with paragraph 35D.

- F. Surety: The Licensee shall fund the surety for the remediation, in License Condition 35 E. Within 30-days of the effective date of this license condition, the licensee shall submit for Executive Secretary review and approval, the surety cost estimates for remediation of existing Savannah River DU waste disposal and planned, similar, large quantity DU waste disposal.

- V. **Radioactive Waste Disposal – Request from Charles Judd to Address the Board on Disposal Capacity at EnergySolutions (Board Information Item)**
 - (1) Presentation to the Board
 - (2) Charles Judd Comments to the Board – Item b. Depleted Uranium

V. Radioactive Waste Disposal

- a. **Request from Charles Judd to Address the Board on Disposal Capacity at EnergySolutions (Board Information Item)**

Pumpkins, Tray and Beans/Representing:

- (1) **First Pumpkin – LLP, Long Life of Plant contracts**
- (2) **Second Pumpkin – Government Contracts, will bring in 10 million cubic feet of waste or about .3 million tons**
- (3) **Third Pumpkin, Foreign Waste, no signed agreements, but EnergySolutions will try to put waste there**
- (4) **Fourth Pumpkin, Depleted Uranium (DU) and Clean-up Site waste**
- (5) **Tray with Beans – Additional waste in Section 32**

Charles Judd informed the Board on this item, the following are his comments:

I often ask my children when they return from school “what did you learn from school today?” and they will say “I can’t remember.” It is for this reason that I felt that it would be better to give you all a visual presentation and perhaps this way the Board would be able to remember my presentation today. For this reason I am using different sizes of pumpkins and some trays and beans to conduct my demonstration on the radioactive disposal waste capacity that is left at EnergySolutions, Clive site.

There are three cells at the Clive site that have been constructed to accept low-level radioactive waste. The first cell represents the LLRW cell (each pumpkin is marked and labeled with the initials of the waste that it represents’) which contains about 2.2 million cubic yards of cell space. This cell has been capped and completed, and there is nothing else that EnergySolutions will be putting in the cell. Maybe there are some issues with the cover on the cell, but it is closed and they will not be accepting any more waste to go on this cell.

Edd Johnson asked Charles Judd: Is this the Vitro waste?

Charles Judd response: No, it isn't. This was the new original one, which was located South of Vitro waste. Mr. Judd said this cell is now now closed.

The second cell is now opened which is the Class A cell. This cell has the capacity of 3.8 million cubic yards. And next to it is the third cell, the Class- North, or the CAN cell which has the capacity of 1.7 million yards

(Pouring of beans in different cells represented the waste that was placed or capacity that was been taken as of August, 2008).

I showed you the document that *EnergySolutions* did to come up with the number on the cell. The thing they have to remember is that there were several things that had not been accounted for in the survey. Those things were represented by the beans in the different bags. Since that date, the waste has come in. Another requirement that has been made by *EnergySolutions* is at least the one-foot temporary cover or they have to have it cleaned, placed or filled over the waste. There has also been a lot filled waste that has been placed with the material. The last few years they have been adding about 25 percent (25%) of filled material with the waste that they have been accepting. The different sacks of beans, representing the waste would need to be accounted for in the cells that they have. *EnergySolutions* had been placing the waste in the Class A cell and some of the waste in the CAN cell. I will but the additional bags of beans in the Class A or CAN cell. You can see now after this demonstration that the Class A is almost completely full. There is some cell space, but that it is almost full. *EnergySolutions* has what is called the CAN cell which still has quite a large amount of cell space left to accept waste.

I now want to demonstrate to the Board the waste that has been committed to come to the *EnergySolutions*-Clive site. I have carefully measured each one of the pumpkins to the nearest gram, to figure out how much they weighed. He said that he had actually used water and a tub and a measuring device to come-up with pumpkins that were fairly close to quantities that are expected. The first pumpkin, the largest pumpkin that reads: "LLP" waste meaning the "Long Life of Plant Contracts." As you are aware there is probably 104 nuclear power plants that are

going to be decommissioned. Mr. Judd said that *EnergySolutions* has signed contracts with at least 85 of the nuclear power plants to accept the waste. There are one million cubic feet, a piece which ended up being 85 million or about 3.1 million cubic yards of cell space that has been reserved or contracted for this already, under this LLP contracts.

The second pumpkin represents government contracts. There are several large contracts that *EnergySolutions* has already signed. That would bring in at least 10 million cubic feet of waste or about .3 tons (point three tons).

The third pumpkin represented “Foreign Waste,” I don’t think there are any signed agreements yet, but regardless *EnergySolutions* is moving forward and trying to put some foreign waste in that site also.

The last or fourth pumpkin represents “Depleted Uranium (DU),” which has recently been of interest, lately. This is especially something that I will address later. There is a commitment to put ten feet of something over the top of this waste cell. This only means that it could take a lot of cell space. I will talk more this later, but DU is just a small amount compare to everything else. I read in the newspaper yesterday about another kind of waste which might be coming to *EnergySolutions* called S & M, some pipes and other things, again a small amount. Another thing that needs to be considered is that *EnergySolutions* owns a variety of sites around the country; Tennessee, South Carolina, and other places and those sights are scheduled to send their waste here when they get cleaned up which is approximately .1 (point one tons) tons, there that is that estimate.

The last pumpkin also represents the Clive site cleanup which happens to be the most important of all. What this means is when the Clive site closes down, the State of Utah needs to assure that there is enough cell space so that they can clean-up the site and put it all inside this cell; cap-it and go away. This is the one that the public needs to be the most concern about, how are we going to get that last pumpkin into this cells?

If the Board would look and visualize (Mr. Judd picked up the last pumpkin labeled with the initials of LLP) and try to fit it and in any one of the cells, it is very clear that it doesn’t fit, even by itself. I can put in DU

foreign waste, Government waste, and other site clean-ups and I'm sure other waste, yet the most important part which is in the Clive site to this cell it's just not going to make it. I would suggest that the State of Utah needs to follow the lead of South Carolina; when the South Carolina site was getting ready to shut-down they got to a point where they started to monitor the amount of waste that was coming in. They put a cap on it and said "you can't bring in more than a certain amount of waste." I thought this was important because right now under contract with *EnergySolutions* there's more waste than *EnergySolutions* has the ability to take. I think this is important for the State of Utah to consider looking at a situation where they start to monitor the amount that is contracted or scheduled to come in to Clive. Because I don't think the State want's to get in a situation where there's no room for that last pumpkin, the close-up of the Clive site, the State needs to have room for this last step.

I would like to make one side note: they have mentioned that they might add another cell, the 11.e.2 cell. Mr. Judd said that his discussion with folks is that this was quiet a ways out. And they're not even sure how this is going to work out, but even with that and I'll throw-up another tray for you (an additional tray that had beans thrown-into the pumpkin). This tray represented the size of the amended cell if *EnergySolutions* gets permission to bring in more waste which is still in question in Section 32; that's all the additional cell space that they would get. Even with that amendment they are still contracted for more waste than they have the ability to accept. I would suggest that the State closely monitor the amount of waste that is scheduled or contracted to come in to the State and be dispose there, so that we can make sure that we have room to clean-up the site.

Do you have any questions? The Board had none.

Charles Judd had additional comments to make on Item V. b. – Comments on Depleted Uranium (See Attach Copy)

**Item V. b. Radioactive Waste Disposal – Consideration of a License Amendment
for Depleted Uranium disposal at EnergySolutions (Board Action Item)
Charles Judd - Comments**

Charles Judd - Depleted Uranium Comments on Item V.b.:

My second issue has to do with Depleted Uranium (DU). It falls back somewhat in the same category that has to do with cell space. At the last Board meeting that was the first time I heard of the potential of putting ten feet of cover or ten feet of material over any DU that came into the site. Whether the site accepts DU or not, that's a decision that people smarter than myself need to make. But, the only consideration that I think needs to be made is that there needs to be enough money in the Surety fund to cover closing the site properly. If you put ten feet of cover over the entire DU, the cell space that you have is going to be used up, the Surety fund is going to be used up before EnergySolutions can complete the cell.

On page 10 of the information that I submitted to the Board was a page of the cell layout. It has the site drawing of how EnergySolutions is going to close the site. One of the things you should consider is how much waste is going to be produced on site, during site clean-up that also has DU in it. During the handling, the unloading, the placement, all of those things; DU will naturally contaminate areas around the site. DU will also have to have ten feet of cover on it, and if it does you're going to need a lot of cover material over the top to make sure DU is completely covered according with the ten feet. Just with this map that is on the demonstration (page 10), it shows how they are planning right now to close the site which is what the State approved last time. However, if EnergySolutions wants to do this new approach with the ten feet of DU, the Class A-North Cell the amount of cover that would be needed to do that properly it would need to be expanded significantly. I have done all of the calculations, but that he anticipated there were 5 million more dollars which would need to be put in the Surety fund to assure that DU can be covered with then feet of cover material and the proper cover is put as necessary.

PUBLIC COMMENTS

Christopher Thomas, HEAL-Utah:

**Christopher Thomas, Hand Out to Board Members
DRC Board Meeting, October 13, 2009, Item V. b. Depleted Uranium
comments**

**Entitled: “DRAFT License Condition 35. Depleted Uranium,” Redlined
Modifications as Suggested from HEAL-Utah to the Board**

Christopher Thomas, HEAL-Utah:

What the amendments would do is basically require that a performance assessment to be completed out to the time of “peak dose” which takes the language from the Texas rule. Prior to further disposal Depleted Uranium (DU) at EnergySolutions and secondly, and importantly it would also allow for a public comment on the performance assessment. Before it is simply approved and goes into effect, I really think this is the way to best protect the interest of the public of Utah. We are talking about all of these different massive nations of legal vehicles and what if this, and what if that, and really what’s at stake here, right? What’s at stake here is delaying EnergySolutions being able take this material until they can get performance assessment done. I don’t think this is an unreasonable request. We’re talking about a number of years, right? I mean, it seems to me clear, any material that you would be looking taking as a State you should always be looking at the risks to the environment, you should always be looking at the risk of public health. And you should be doing that on the front-in, prior to actually taking and disposing of the material. I mean really, what is the harm to EnergySolutions for waiting for two to three years. Honestly, I don’t think that it’s that too much to ask. You know we raised these issues about DU not just before the Board, we did this to Dane Finerfrock, the Executive Secretary, two years ago. We basically raised all these concerns that have now been legitimized to some extent at least by the U.S. Nuclear Regulatory Commission (NRC) undertaking a rule making. If EnergySolutions and the State of Utah had at that point two years ago said, O.K., we’re going to admit that yes, this wasn’t looked at properly in the Federal rules, this wasn’t looked at properly within the State framework, so we’re going to do a new performance assessment; we that could have been worked on these last two years, but instead EnergySolutions came back and said, look could fill the cells with Depleted Uranium and it wouldn’t be a problem. I mean that was there response. O.K. find that response to have a great deal of humorous, a great deal of disregard for the overall public well-being. And now the idea that we would put it in EnergySolutions hands to say “yeah, we can move this stuff later.” I

PUBLIC COMMENTS –Continue

Christopher Thomas, HEAL-Utah:

think is the height, its fully the height of making a poor decision. I mean we were talking about was the agitated uranium an imminent shipment, were there plans to come to Utah. EnergySolutions as I recall on three occasions was “mum.” They said, well we’re not aware of any specific plans. Three days later there’s DU that was announced that’s suppose to be coming to the State. So, my point is the public is best served by simply requiring a performance assessment first. I don’t really see the huge harm to EnergySolutions by delaying to a couple of years and I see great potential public good. Because although Mr. Chairman you know a lot more of this than I do at INEL (Idaho National Energy Lab) that cause tax-payer money to clean-up. Why would we allow a situation to have all this money spent, tax-payer money to send it to Utah , then if turns out that it can’t be there spent millions more tax-payer dollars to dig it up and sent it back. I think the best thing to do with the stuff, if you ask me and Board member Edd Johnson, I think you bring this up and it’s a great point, it’s like what do we do with this material? Honestly, I think the best think is to de-convert it so it’s not in its ashes-form and leave it on site. What is the impedance, what is the urgency, what is the impedance to bring it here when it could just be dug-up to send back. But, the Federal government is not going to take that stance, unless a Board like this one says, hang on we’re going to look at that health consequences and impacts first before you’re going to be allowed to send it here. And I really think that’s a question before the Board today, are you going to stand-up for the public interest for making sure that health studies are done prior to acceptance or not? And clearly, I’m passionate about this issue. I think that the State of Texas has implemented an excellent, excellent, excellent framework for measuring out for the time of peak dose prior to acceptance. We should just to what they have done, their Agreement State Program is in good standing, you know they have not had program revoked. So, I think that’s what this license amendment captures and I would ask you to support it. And here’s the reason that I do not want to put it out for public comment, in its current form. Because if it comes back and there’s substantial changes my understanding is Dane (Dane L. Finerfrock, Executive Secretary), that then it would have to go back out potentially for public comment, then that would be another 30-day period. And we’ve got a window right now, we got a great window of opportunity between now and December when the first shipments are supposed to arrive. I think we should take advantage of it. I think this is reasonable, I think it’s always reasonable to look at the health impact prior to accepting a waste stream and so, forth. I’m asking you after all of this work we’ve done together to make what I think is a sensible, reasonable, low-cost, all-around decision, that is in the best interest of Utahans.

PUBLIC COMMENTS

James O’Neal, Concerned Citizen from Provo, Utah:

James O’Neal: After hearing the debate and so forth, the discussion back and forth, I concur with the Chairman’s opinion that something should be done. I went to some of the meeting’s that the U.S. Nuclear Regulatory Commission (NRC) had last month. I was not able to go to all of them because I had to work and I talked to their lawyer and so, forth. You have the authority, you have the rulemaking authority like they do, but they have less incentive to work on this than we do. So, I think you should make a rule, you should make some kind of a judgment and then go for it. On the other hand, you know I’ve been accused a lot of times of being opposed to EnergySolutions all the time, I think they are operating in good faith here, in some respect because if they are willing to do this it’s like accepting the reclassification of this waste.

I’ve got this book from the NRC and it talks about low-level waste and what you have to do with that. And it says that after the facility ceases operation access to the site might be restricted for a long time, but NRC and State regulations does not allow reliance on institutional control after a 100 years following site closure. After a 100 years passive controls such as custodial care, waste records and land records and so forth, will be relied on to prevent disturbance the in-place waste. That’s Class A waste that hasn’t changed, they haven’t changed the ruling. Now, I’m not an expert on this, but your folks are experts on mill tailings, I know that, but I’m not. Let me read what it says about that\, this is from 2002, shows you how fast they are, it reads:

“NRC regulations require that cover be placed over the mill tailings to control or release a radon gases at the end of milling operations, the cover must be effective in controlling radon-releases for a 1,000 years to the extent reasonably achievable and in any case, no less than 200 years. The uranium mill tailings contain chemical radiological material disregarded from the mill. Radium-fluorine which is a dominant radioactive material in mill tailings and have long half-lives, 16,000 years to 77,000 years respectively, therefore, Congress requires perpetual government custody of the tailings disposal sites.”

That just says to me that the NRC made a big mistake when they classified DU as Class A, and they know it. They are conflicted within their own agency. So, I suggest that we have to act as a member of the public, I ask you to act! Do something because they are not going to do anything.

PUBLIC COMMENTS

Ed Firmage Jr., Concerned Citizen:

In 2006, when Utah looked to become a dump for high-level nuclear waste, the LDS Church issued the following statement: “The transportation and storage of high-level nuclear waste create substantial and legitimate public health, safety, and environmental concerns. It is not reasonable to suggest that any one area bear a disproportionate burden of the transportation and concentration of nuclear waste.”

In 2009, Utah seems likely to become the dump of choice for the world’s low-level waste, and more ominously for our country’s and possibly the world’s depleted uranium (DU) stockpiles. If *EnergySolutions*, which is one of only a handful of low-level waste sites in the U.S., has its way, waste from all over the world will be stored 75 miles from Salt Lake. The recent U.S. Nuclear Regulatory (NRC) decision—decried by scientist—to classify DU as low-level means that Utah becomes one of the main destinations where DU (and not just our DU, but the world’s) can be permanently stored.

Unlike true low-level waste, DU becomes MORE radioactive over time, releasing among other by-products radon gas, which *EnergySolutions* simple earthen cover is unable to contain. More worrisome is the fact that under no conceivable scenario can *EnergySolutions*’ Clive facility be said to have the staying power needed to keep the increasingly radioactive DU material from being dispersed as the Great Basin undergoes the sort of geological changes that are CERTAIN to occur here. In the past 25,000 years, for example, the Great Basin has seen massive changes, including glaciations, the melting of the glaciers, the formation of Lake Bonneville and the disappearance of Lake Bonneville. These climatic and geologic phenomena have each utterly changed the nature of the place where *EnergySolutions* now stores low-level waste. On the time-scale of such changes, low-level waste can be said to be relatively innocuous. But that is not the case with depleted uranium, whose danger to our descendants will grow over geological time. Imagine, then, what future inhabitants of Utah will say of this board’s decision to allow DU waste into Utah KNOWING that at some future date the Great Salt Lake will again flood the valley where the Clive facility is located, dispersing radium, radon, and the other deadly by-products of the decay of DU throughout the future Great Salt Lake. Is this the legacy you want your names to be associated with? Is this the legacy you want to pass on to YOUR children’s children?

PUBLIC COMMENTS

Continue - Ed Firmage Jr., Concerned Citizen:

I think this Board made a terrible mistake last month in not supporting a moratorium on DU importation. If that decision cannot be revisited I think it at least prudent to adopt the proposal that HEAL-Utah has made. Specifically, I would like to suggest that you (the Board) adopt the proposal that "NO FURTHER IMPORTS BE ALLOWED," until the performance assessment criteria is well-established. And that among the requirements you add a reasonable timeframe, if not to peak dose, then at least something that reflects geologic reality, which even 10,000 years does not. And second, that contrary to your guidance geologic factors be considered. To say that you're not going to consider geologic or more for geological changes is like saying "I'm interested in buying a piece of real estate in Hawaii," and what I'm really interested in is the price, not the fact that it's located next to the volcano "Kilauea." That seems just primer-fascia, stupid. We know that there will be changes, they will be major and their impact on our descendants will be significant with this kind of waste. Which is not low-level waste? Thank you. (Attached Copy of Comments)

(See Attached Copy of Comments)

PUBLIC COMMENTS

Bob Archibald, Concerned Citizen from Sandy, Utah:

It's seems entirely reasonable to expect that Depleted Uranium (DU) potential impact be codified before more of it is sent here. I would submit to do otherwise, could be invoking that tired and true folly, choosing A, while hoping for B. If it means that *EnergySolutions* has to put some shipments on hold, during the study period it doesn't seem like an unreasonable situation for them to manage. Thank you for your time. (Attached Copy of Comments)

RADIATION CONTROL BOARD – October 13, 2009

Science and logic would dictate that Depleted Uranium disposal be studied and modeled rationally for potential impacts before we let any more of it in to the State.

Since the NRC is unwilling to take a firm stand on the stuff without more examination, I don't see why the State of Utah should be expected to.

It seems we have to suspend a lot of disbelief, to believe that material once buried at least 3 meters deep can be easily retrieved.

On the hand it seems entirely reasonable to expect that DU's potential impacts be codified, before more of it is shipped here.

To do otherwise, could be invoking that tired and true folly, of choosing A while hoping for B.

If it means *EnergySolutions* has to put some shipments on hold during the study period, it doesn't seem like an unreasonable situation for them to manage.

(See Attached Copy of Comments)

**MINUTES
OF
THE UTAH RADIATION CONTROL BOARD**

October 13, 2009

Department of Environmental Quality, DEQ Building #2

Conference Room 101

168 N 1950 W

Salt Lake City, Utah 84114-4850

*wrong/errors
need corrections
page 7 &
page 10/4*

BOARD MEMBERS PRESENT

Peter A. Jenkins, M.S., CHP, Chair
Dane L. Finerfrock, Executive Secretary
Scott Bird
Patrick D. Cone (Attended by Conf. Call)
Frank D. DeRosso, MSPH, CIH
Christian K. Gardner
Colleen Johnson
Edd C. Johnson
Douglas S. Kimball, DMD
Joseph K. Miner, M.D., MSPH
Amanda Smith, Acting DEQ Executive Director
John W. Thomson, M.D.

BOARD MEMBERS ABSENT/EXCUSED

Elizabeth Goryunova, M.S., Vice Chair
David A. Tripp, Ph.D.

**DRC STAFF/OTHER DEQ MEMBERS
PRESENT**

Mario A. Bettolo, DRC Staff
Bill Craig, DRC Staff
David Esser, DRC Staff
Phil Goble, DRC Staff
John Hultquist, DRC Section Manager
Craig Jones, DRC Section Manager
Laura Lockhart, Attorney, Atty General's Office
Yoli Necochea, DRC Staff
Fred Nelson, Attorney, Atty General's Office
Loren Morton, DRC Section Manager
Donna Spangler, PIO, DEQ – PPA Staff

PUBLIC

Bob Archibald, Concerned Citizen
Robert Baird, URS
Krista Bowers, Concerned Citizen
Jeff Clay, Concern Citizen
Amy O'Conner
Ed Firmage, Concern Citizen
Norma Franklin, Concern Citizen
Martin Gelman, HEAL-Utah
Jason Grenewold, Concern Citizen
Sandra Hays, HEAL-Utah
Maxine Kaiser, HEAL-Utah
Mark LeDoux, EnergySolutions
Karen Langley, University of Utah
Sean McCandless, EnergySolutions
Arthur Morris, HEAL-Utah
James O'Neal, Concern Citizen
Daniel Shrum, EnergySolutions
Eric Spreng, HEAL-Utah
Jim Sweet, GammaWest
Christopher Thomas, HEAL-Utah
Rachel White, Concerned Citizen
Cherry Wong, Women Concerned

GREETINGS/MEETING CALLED TO ORDER

Peter A. Jenkins, Chairman, called the board meeting to order at 3:02 p.m. and welcomed the board members and the public. He indicated that if the public wished to address any items on the agenda, they should sign the public sign-in sheet. Those desiring to comment would be given an opportunity to address their concerns during the comment period.

I. APPROVAL OF MINUTES (Board Action Item)

a. Approval of the Minutes from the September 22, 2009 Board Meeting

Peter A. Jenkins, Chair, asked the board members if they had any corrections to the minutes from September 22, 2009.

Edd C. Johnson said that he had found some typos. He said that he did not have the corrections with him. Chairman Jenkins asked Mr. Johnson if he could submit his corrections to the Executive Secretary.

**MOTION MADE BY CHRISTIAN K. GARDNER TO APPROVE
THE MINUTES OF SEPTEMBER 22, 2009 WITH THE
REQUESTED CORRECTIONS**

MOTION SECONDED BY SCOTT BIRD

MOTION CARRIED AND PASSED

**II. RULES
No Items**

III. RADIOACTIVE MATERIALS LICENSING/INSPECTION

a. Exemption from Rules on Procurement and Transfer of Technetium-99m and Calibration of Instrumentation Using Technetium-99m

Craig Jones, Section Manager, informed the Board on the proposed exemption. Mr. Jones gave some background information and explained that molybdenum-99 is a fusion produced radionuclide. When it decays the molybdenum atom transforms and becomes Technetium-99m. Mr. Jones said that Technetium-99m is the most commonly used radionuclide in nuclear medicine. He said that the radionuclide Technetium-99m is beneficial to nuclear medicine.

Mr. Jones said that since December 2007 the medical industry has experienced intermittent shortages of molybdenum-99. Mr. Jones said the shortages had occurred due to unplanned nuclear reactor outages. He said the outages end up being significant because the world's supply of molybdenum-099 is primarily produced by five aging reactors. They are located in Canada, Europe, and South Africa. He said the main supplier to the United States came from Canada.

Currently, there have been major shut downs from generator reactors that are producers and who supply molybdenum-99, and technetium-99. This is a concern because the United States receives 50 percent of its supply of molybdenum-99, and technetium-99m for nuclear medicine from the generator reactors. He said what this means is that the supply-chain for fusion produced radionuclides is fragile, and customers in the United States may face substantial shortages of Technetium-99m.

Mr. Jones said that, in order to deal with shortages, the U.S. Nuclear Regulatory Commission (NRC) has issued an exemption from some of the requirements in Title 10 of the Code of Federal Regulations. He said the NRDC exemptions had been issued to the medical use licensees to assure that the available supply of Technetium-99m is used for patient health care.

The Division of Radiation Control's staff has prepared an exemption for Utah's medical use licensees based upon the NRC's exemption. Mr. Jones said there are 49 licensees in Utah that are required to use and perform procedures in human use, and they use Technetium-99 in their radioactive material license--and they will be affected by this decision.

Mr. Jones said that provisions of Subsection R313-12-55, Exemptions, allow the Radiation Control Board, upon its own initiative, to grant exemptions or exceptions from requirements stated in R313. Mr. Jones asked the Board that they also approve two additional changes to the modified exemption, they were:

1. Exemption, For All R313-32 Licensees:
Number 2, first sentence which reads: "Notwithstanding the requirements in R313-32 . . . or dosages of technetium-99m radioactive drugs, from another **NRC-licensed** medical use licensee . . ." Change to read: ". . . from another **NRC or Agreement State-licensed** medical use licensee . . ."
2. Exemption, For All R313-32 Licensees:
Number 2, second sentence which reads: "The licensee shall certify in writing that it is receiving reduced **qualities** of technetium-99m . . ." Change to read: ". . . reduced **quantities** . . ."

Mr. Jones asked the Board to approve the changes that had been submitted along with the two additional changes.

RECOMMENDATION:

The Executive Secretary recommended that the Board grant exemptions to all medical use licensees during times of molybdenum-99 shortages in the United States. The medical use licensees will be granted exemptions from

the requirements of R313-22-75(9) as well as 10 CFR35.60(b), CFR 35.100(a)(1) and 10 CFR35.200(a)(1), which have been incorporated by reference in R313-32.

Questions by the Board:

Mr. Jones asked the board members, if they had any questions. He discussed and answered their questions.

MOTION MADE BY EDD JOHNSON THAT THE BOARD APPROVE THE EXEMPTION AND INCLUDE THE TWO ADDITIONAL CHANGES

SECONDED BY JOHN W. THOMSON

MOTION CARRIED AND PASSED UNANIMOUSLY

**IV. X-RAY REGISTRATION/INSPECTION
No Items**

V. Radioactive Waste Disposal

a. Request from Charles Judd to Address the Board on Disposal Capacity at *EnergySolutions* (Board Information Item)

Charles Judd informed the Board on this item. A summary of the information provided by Charles Judd is listed below. A copy of presentation made to the Board is attached.

Pumpkins and Tray with Beans/Representing:

- (1) First Pumpkin – LLP, Long Life of Plant contracts
- (2) Second Pumpkin – Government Contracts will bring in 10 million cubic feet of waste or about .3 million
- (3) Third Pumpkin -- Foreign Waste no signed agreements, but *EnergySolutions* will try to put waste there
- (4) Fourth Pumpkin -- Depleted Uranium (DU) and Clean-up Site waste
- (5) Tray with Beans – Additional waste in Section 32

b. Consideration of License Amendment for Depleted Uranium disposal at *EnergySolutions* (Board Action Item)

Peter Jenkins, Chairman, informed the Board that Fred Nelson, Utah Attorney General's Office, would be advising the Board on this item.

Fred Nelson, Attorney, advised the Board about the State Administrator's Procedures Act requirements. Mr. Nelson asked the board members to recall that at the last board meeting the Board directed the Executive

Secretary to prepare a draft of the license amendment for the EnergySolutions' license dealing with Depleted Uranium (DU). The Board asked the Executive Secretary to bring the draft license-amendment for consideration to the October 2009 board meeting.

Mr. Nelson explained that the Board was taking action on this. The Board should consider the text of the license amendment and whatever changes the Board wanted to make to the license amendment today. Mr. Nelson explained that under the Administrator's Procedures Act the Board may approve the license amendment. After approval, he explained that one of the board members could make a motion, and issue a "Notice of Agency Action" to adopt the license amendment. Final action on the license amendment would happen at the December 2009 meeting--after the license amendment has been through public comment and final determination has been met.

Peter A. Jenkins made a motion that the Board members first vote as to whether or not they wanted to change the language in the license condition. The board members voted to make the necessary changes to the license condition.

Chairman Jenkins advised the Board as to how he would like the Board to proceed with Condition 35. His advice to the Board was that they go over Condition 35, and approve and vote for each section or paragraph as they see the changes that are necessary--he will ask the Board to approve or vote on each section, or paragraph in the condition. Once the Board has the license amendment as they would like it to read, the Board will accept it as "Notice of Agency Action" for the upcoming month.

Chairman Jenkins motioned that the Board open this action item for discussion. The Board proceeded and discussed several issues on the condition items. They discussed: burial depth, the performance assessment, revisions to the embankment design, the remediation, and the surety funds.

After much discussion, Chairman Jenkins said that he would like to hear comments from the public on this issue. The following members of the public addressed the Board on the issue of Depleted Uranium (DU):

PUBLIC COMMENTS:

- (1) **Christopher Thomas, HEAL-Utah** (See Attached Comments)
- (2) **James O'Neal, Concerned Citizen from Provo, Utah**
(See Attached Comments)
- (3) **Ed Firmage Jr., Concerned Citizen** (See Attached Comments)
- (4) **Bob Archibald, Concerned Citizen from Sandy, Utah**
(See Attached Comments)

After hearing from each member of the public on this issue of DU, Chairman Jenkins said that the Board would discuss each section of Condition 35 and make changes (**Condition 35, as it was submitted to the Board, is attached**). He said that before the Board continued their discussion and went any further, he would like to poll the Board on how they should handle the Draft Document, and whether or not the Board would like to put language in the license condition that will say that the "Performance Assessment" must be completed and compatibility must be demonstrated before DU waste is accepted.

The board members voted on this action as follows:

Scott Bird – No
Patrick D. Cone – Yes
Frank DeRosso – Yes
Christian K. Gardner – Yes
Peter A. Jenkins - Abstention
Colleen Johnson – Yes
Edd Johnson – Yes
Douglas S. Kimball – Yes
Joseph K. Miner – Yes
John W. Thomson – Yes

Vote: 8 Yes's; 1 No; and 1 Abstention

MOTION MADE BY PETER A. JENKINS THAT THE BOARD IS IN FAVOR OF REQUIRING A PERFORMANCE ASSESSMENT AND THAT THE PERFORMANCE ASSESSMENT IS APPROVED BY THE EXECUTIVE SECRETARY BEFORE DU WASTE IS ACCEPTED

MOTION CARRIED AND PASSED

The Board continued to discuss and vote on the conditions. After much discussion, Daniel Shrum, *EnergySolutions*, came forward and questioned whether the Board was following the correct procedure. Mr. Shrum, *EnergySolutions*, said that at the last board meeting, *EnergySolutions* agreed that they would incorporate the conditions that were mentioned in their letter—the letter provided to the Board at that meeting. Mr. Shrum said that the Board was now requiring that *EnergySolutions* remove the Depleted Uranium (DU), and the license conditions were changing significantly.

Chairman Jenkins asked for advice from Fred Nelson, Utah Attorney General's Office. Fred Nelson said that although the action in the conditions were different from what *EnergySolutions* had originally

agreed to in the letter, it was not outside of the Board's prerogative to move forward on issuing a "Notice of Agency Action." The Board could seek comments from the public and develop the final wording in the license condition and go forward to issue a "Notice of Agency Action." The Board could vote on the final license conditions at the next board meeting.

The Board continued with the discussion on changes to the license condition, and the Board also discussed sending the license condition out for public comment. They agreed on a 30-day comment period. After the public comment, the Board could choose to make additional changes. The final license condition would be voted on at the December 2009 board meeting.

The following are the Board's final changes to the license condition:

1. Condition 35. A. Background: There was a suggested change, the board members voted and the majority agreed that no changes were necessary. The condition will remain the same as written.
2. Condition 35. B. Burial Depth: There were no changes. The condition will remain the same as written.
3. Condition 35. C. Performance assessment (as submitted): A performance assessment, in general conformance with the approach used by the Nuclear Regulatory Commission (NRC) in SECY- 08-0147, shall be submitted for Executive Secretary review and **approved no later than December 31, 2010**. The performance assess shall be revised as needed to reflect ongoing guidance and rulemaking from NRC. For purposes of this performance assessment, the compliance period will be a minimum of 10,000 years. Additional simulations will be performed for a minimum of a 1,000,000-year time frame for qualitative analysis.
4. Condition 35. C. Performance assessment (changed to read): A performance assessment, in general conformance with the approach used by the Nuclear Regulatory Commission (NRC) in SECY- 08-0147, shall be submitted for Executive Secretary review and **be approved prior to receipt of significant quantities (more than 1 metric ton) of DU waste**. The performance assess shall be revised as needed to reflect ongoing guidance and rulemaking from NRC. For purposes of this performance assessment, the compliance period will be a minimum of 10,000 years. Additional simulations will be performed for a minimum of a 1,000,000-year time frame for qualitative analysis.

5. Condition 35. D. Revised disposal embankment design: There were no changes. The condition will remain the same as written.
6. Condition 35. E. Remediation (as submitted): If, following the completion of NRC's and DRC's regulatory processes described in paragraph 35A, the disposal of DU as preformed after the date of this license condition would not have met the requirements of those new regulatory and performance standards, the facility will undertake remediation to ensure that those new regulatory and performance standards are met, or if that is not possible, shall remove the DU and transport it off-site to licensed facility. Before accepting **substantial** quantities of DU for disposal after the effective date of this license condition, EnergySolutions shall provide evidence that it is feasible to meet this **condition 35.E**. Compliance with this provision is required even if EnergySolutions has complied with paragraph 35D.

Condition 35. E. Remediation (changed to read): If, following the completion of NRC's and DRC's regulatory processes described in paragraph 35A, the disposal of DU as preformed after the date of this license condition would not have met the requirements of those new regulatory and performance standards, the facility will undertake remediation to ensure that those new regulatory and performance standards are met, or if that is not possible, shall remove the DU and transport it off-site to licensed facility. Before accepting **significant** quantities of DU for disposal after the effective date of this license condition, EnergySolutions shall provide evidence that it is feasible to meet this **condition**. Compliance with this provision is required even if EnergySolutions has complied with paragraph 35D.

7. Condition 35. F. Surety: There were no changes. The condition will remain the same as written.

Peter A. Jenkins, Chairman, said that he would entertain a motion from the Board to accept the changes, and to issue a Notice to Propose Agency Action with a 30-day public comment period. The changes will be an action item at the December 2009 board meeting.

MOTION MADE BY JOHN W. THOMSON TO ACCEPT THE BOARD'S CHANGES TO THE LICENSE CONDITION AS REQUESTED BY THE CHAIRMAN, AND TO ISSUE A NOTICE TO PROPOSE NOTICE OF AGENCY ACTION WITH A 30 DAY PUBLIC COMMENT, AND FOR IT TO BE AN ACTION ITEM AT

THE DECEMBER 2009 BOARD MEETING

SECONDED BY CHRISTIAN K. GARDNER

CHAIRMAN JENKINS ASKED FOR A ROLL CALL ON THE MOTION. THE BOARD VOTED AS FOLLOWS:

Scott Bird, Abstained
Patrick D. Cone, Yes
Frank D. DeRosso, Yes
Christian K. Gardner, Yes
Peter A. Jenkins, Abstained
Colleen Johnson, No
Edd Johnson, Yes
Douglas S. Kimball, Yes
Joseph K. Miner, Yes
John W. Thomson, Yes

Vote: 7 Yes'; and 1 No; 2 Abstention

MOTION PASSED AND CARRIED

VI. URANIUM MILL LICENSING AND INSPECTION

No Items

VII. OTHER DIVISION ISSUES (Board Information Item)

a. Division Activities Report

Peter A. Jenkins, Chairman, informed the Board that the U.S. Nuclear Regulatory Commission has been directed to make recommendations on the blending issue. The information has been included in the additional supplements in the board packet.

Chairman Jenkins asked the Board if they had any question on the Division Activities Report. John W. Thomson asked about the Notice of Violation with a Severity Level III. He asked what the action meant to the Central Utah Clinic, and how would they be impacted by this violation.

Craig Jones, Section Manager, explained to the Board that the Executive Secretary provided information about significant enforcement actions. Mr. Jones said that a violation that is characterized at the Severity Level III or higher, meaning Severity Level I or II, is what the Board has requested that the Division report back to the Board. Mr. Jones said that the licensee had responded to this Notice of Violation. He said there were no Civil Penalties that were proposed, and the corrective action has been

accepted by the Executive Secretary. He said that the facility is now continuing with their use of their radioactive-material license, in accordance with the commitments and representations they made.

Edd Johnson said that he made a comment at the last Board meeting, and his comment came out wrong in last Sunday's editorial on October 11, 2009, in the Salt Lake Tribune, he read: "The NRC already erred when it classified depleted uranium (DU) as Class A, which is contaminated material that sheds its radioactivity quickly and poses no risk to humans a hundred years later." Mr. Johnson asked, "where in the world did this ever come from?"

Mr. Johnson said that he did hear Steve Cramer, the President of *EnergySolutions*, comment and allude to that, but it should not impact everybody's interpretation of what this material is. He said, "nothing out there is going to decay in a 100 years--nothing. I vented my splint!"

VIII. PUBLIC COMMENT

Please refer to Item V. b., page 5

IX. The Next Scheduled Board Meeting: November 10, 2009 (Tuesday), DEQ Bldg #2, Conference Room 101, 168 North 1950 West, Salt Lake City, Utah 3:00 – 5:00 P.M. THE BOARD MEETING ADJOURNED AT 5:50 P.M.

PUBLIC COMMENTS

Christopher Thomas, HEAL-Utah:

**Christopher Thomas, Hand Out to Board Members
DRC Board Meeting, October 13, 2009, Item V. b. Depleted Uranium
comments**

**Entitled: “DRAFT License Condition 35. Depleted Uranium,” Redlined
Modifications as Suggested from HEAL-Utah to the Board**

Christopher Thomas, HEAL-Utah:

What the amendments would do is basically require that a performance assessment to be completed out to the time of “peak dose” which takes the language from the Texas rule. Prior to further disposal Depleted Uranium (DU) at EnergySolutions and secondly, and importantly it would also allow for a public comment on the performance assessment. Before it is simply approved and goes into effect, I really think this is the way to best protect the interest of the public of Utah. We are talking about all of these different massive nations of legal vehicles and what if this, and what if that, and really what’s at stake here, right? What’s at stake here is delaying EnergySolutions being able take this material until they can get performance assessment done. I don’t think this is an unreasonable request. We’re talking about a number of years, right? I mean, it seems to me clear, any material that you would be looking taking as a State you should always be looking at the risks to the environment, you should always be looking at the risk of public health. And you should be doing that on the front-in, prior to actually taking and disposing of the material. I mean really, what is the harm to EnergySolutions for waiting for two to three years. Honestly, I don’t think that it’s that too much to ask. You know we raised these issues about DU not just before the Board, we did this to Dane Finerfrock, the Executive Secretary, two years ago. We basically raised all these concerns that have now been legitimized to some extent at least by the U.S. Nuclear Regulatory Commission (NRC) undertaking a rule making. If EnergySolutions and the State of Utah had at that point two years ago said, O.K., we’re going to admit that yes, this wasn’t looked at properly in the Federal rules, this wasn’t looked at properly within the State framework, so we’re going to do a new performance assessment; we that could have been worked on these last two years, but instead EnergySolutions came back and said, look could fill the cells with Depleted Uranium and it wouldn’t be a problem. I mean that was there response. O.K. find that response to have a great deal of humorous, a great deal of disregard for the overall public well-being. And now the idea that we would put it in EnergySolutions hands to say “yeah, we can move this stuff later.” I

PUBLIC COMMENTS –Continue

Christopher Thomas, HEAL-Utah:

think is the height, its fully the height of making a poor decision. I mean we were talking about was the agitated uranium an imminent shipment, were there plans to come to Utah. EnergySolutions as I recall on three occasions was “mum.” They said, well we’re not aware of any specific plans. Three days later there’s DU that was announced that’s suppose to be coming to the State. So, my point is the public is best served by simply requiring a performance assessment first. I don’t really see the huge harm to EnergySolutions by delaying to a couple of years and I see great potential public good. Because although Mr. Chairman you know a lot more of this than I do at INEL (Idaho National Energy Lab) that cause tax-payer money to clean-up. Why would we allow a situation to have all this money spent, tax-payer money to send it to Utah , then if turns out that it can’t be there spent millions more tax-payer dollars to dig it up and sent it back. I think the best thing to do with the stuff, if you ask me and Board member Edd Johnson, I think you bring this up and it’s a great point, it’s like what do we do with this material? Honestly, I think the best think is to de-convert it so it’s not in its ashes-form and leave it on site. What is the impedance, what is the urgency, what is the impedance to bring it here when it could just be dug-up to send back. But, the Federal government is not going to take that stance, unless a Board like this one says, hang on we’re going to look at that health consequences and impacts first before you’re going to be allowed to send it here. And I really think that’s a question before the Board today, are you going to stand-up for the public interest for making sure that health studies are done prior to acceptance or not? And clearly, I’m passionate about this issue. I think that the State of Texas has implemented an excellent, excellent, excellent framework for measuring out for the time of peak dose prior to acceptance. We should just to what they have done, their Agreement State Program is in good standing, you know they have not had program revoked. So, I think that’s what this license amendment captures and I would ask you to support it. And here’s the reason that I do not want to put it out for public comment, in its current form. Because if it comes back and there’s substantial changes my understanding is Dane (Dane L. Finerfrock, Executive Secretary), that then it would have to go back out potentially for public comment, then that would be another 30-day period. And we’ve got a window right now, we got a great window of opportunity between now and December when the first shipments are supposed to arrive. I think we should take advantage of it. I think this is reasonable, I think it’s always reasonable to look at the health impact prior to accepting a waste stream and so, forth. I’m asking you after all of this work we’ve done together to make what I think is a sensible, reasonable, low-cost, all-around decision, that is in the best interest of Utahans.

PUBLIC COMMENTS

James O’Neal, Concerned Citizen from Provo, Utah:

James O’Neal: After hearing the debate and so forth, the discussion back and forth, I concur with the Chairman’s opinion that something should be done. I went to some of the meeting’s that the U.S. Nuclear Regulatory Commission (NRC) had last month. I was not able to go to all of them because I had to work and I talked to their lawyer and so, forth. You have the authority, you have the rulemaking authority like they do, but they have less incentive to work on this than we do. So, I think you should make a rule, you should make some kind of a judgment and then go for it. On the other hand, you know I’ve been accused a lot of times of being opposed to EnergySolutions all the time, I think they are operating in good faith here, in some respect because if they are willing to do this it’s like accepting the reclassification of this waste.

I’ve got this book from the NRC and it talks about low-level waste and what you have to do with that. And it says that after the facility ceases operation access to the site might be restricted for a long time, but NRC and State regulations does not allow reliance on institutional control after a 100 years following site closure. After a 100 years passive controls such as custodial care, waste records and land records and so forth, will be relied on to prevent disturbance the in-place waste. That’s Class A waste that hasn’t changed, they haven’t changed the ruling. Now, I’m not an expert on this, but your folks are experts on mill tailings, I know that, but I’m not. Let me read what it says about that, this is from 2002, shows you how fast they are, it reads:

“NRC regulations require that cover be placed over the mill tailings to control or release a radon gases at the end of milling operations, the cover must be effective in controlling radon-releases for a 1,000 years to the extent reasonably achievable and in any case, no less than 200 years. The uranium mill tailings contain chemical radiological material disregarded from the mill. Radium-fluorine which is a dominant radioactive material in mill tailings and have long half-lives, 16,000 years to 77,000 years respectively, therefore, Congress requires perpetual government custody of the tailings disposal sites.”

That just says to me that the NRC made a big mistake when they classified DU as Class A, and they know it. They are conflicted within their own agency. So, I suggest that we have to act as a member of the public, I ask you to act! Do something because they are not going to do anything.

PUBLIC COMMENTS

Ed Firmage Jr., Concerned Citizen:

In 2006, when Utah looked to become a dump for high-level nuclear waste, the LDS Church issued the following statement: “The transportation and storage of high-level nuclear waste create substantial and legitimate public health, safety, and environmental concerns. It is not reasonable to suggest that any one area bear a disproportionate burden of the transportation and concentration of nuclear waste.”

In 2009, Utah seems likely to become the dump of choice for the world’s low-level waste, and more ominously for our country’s and possibly the world’s depleted uranium (DU) stockpiles. If *EnergySolutions*, which is one of only a handful of low-level waste sites in the U.S., has its way, waste from all over the world will be stored 75 miles from Salt Lake. The recent U.S. Nuclear Regulatory (NRC) decision—decried by scientist—to classify DU as low-level means that Utah becomes one of the main destinations where DU (and not just our DU, but the world’s) can be permanently stored.

Unlike true low-level waste, DU becomes MORE radioactive over time, releasing among other by-products radon gas, which *EnergySolutions* simple earthen cover is unable to contain. More worrisome is the fact that under no conceivable scenario can *EnergySolutions*’ Clive facility be said to have the staying power needed to keep the increasingly radioactive DU material from being dispersed as the Great Basin undergoes the sort of geological changes that are CERTAIN to occur here. In the past 25,000 years, for example, the Great Basin has seen massive changes, including glaciations, the melting of the glaciers, the formation of Lake Bonneville and the disappearance of Lake Bonneville. These climatic and geologic phenomena have each utterly changed the nature of the place where *EnergySolutions* now stores low-level waste. On the time-scale of such changes, low-level waste can be said to be relatively innocuous. But that is not the case with depleted uranium, whose danger to our descendants will grow over geological time. Imagine, then, what future inhabitants of Utah will say of this board’s decision to allow DU waste into Utah KNOWING that at some future date the Great Salt Lake will again flood the valley where the Clive facility is located, dispersing radium, radon, and the other deadly by-products of the decay of DU throughout the future Great Salt Lake. Is this the legacy you want your names to be associated with? Is this the legacy you want to pass on to YOUR children’s children?

PUBLIC COMMENTS

Continue - Ed Firmage Jr., Concerned Citizen:

I think this Board made a terrible mistake last month in not supporting a moratorium on DU importation. If that decision cannot be revisited I think it at least prudent to adopt the proposal that HEAL-Utah has made. Specifically, I would like to suggest that you (the Board) adopt the proposal that "NO FURTHER IMPORTS BE ALLOWED," until the performance assessment criteria is well-established. And that among the requirements you add a reasonable timeframe, if not to peak dose, then at least something that reflects geologic reality, which even 10,000 years does not. And second, that contrary to your guidance geologic factors be considered. To say that you're not going to consider geologic or more for geological changes is like saying "I'm interested in buying a piece of real estate in Hawaii," and what I'm really interested in is the price, not the fact that it's located next to the volcano "Kilauea." That seems just primer-fascia, stupid. We know that there will be changes, they will be major and their impact on our descendants will be significant with this kind of waste. Which is not low-level waste? Thank you. (Attached Copy of Comments)

(See Attached Copy of Comments)

PUBLIC COMMENTS

Bob Archibald, Concerned Citizen from Sandy, Utah:

It's seems entirely reasonable to expect that Depleted Uranium (DU) potential impact be codified before more of it is sent here. I would submit to do otherwise, could be invoking that tired and true folly, choosing A, while hoping for B. If it means that *EnergySolutions* has to put some shipments on hold, during the study period it doesn't seem like an unreasonable situation for them to manage. Thank you for your time. (Attached Copy of Comments)

RADIATION CONTROL BOARD – October 13, 2009

Science and logic would dictate that Depleted Uranium disposal be studied and modeled rationally for potential impacts before we let any more of it in to the State.

Since the NRC is unwilling to take a firm stand on the stuff without more examination, I don't see why the State of Utah should be expected to.

It seems we have to suspend a lot of disbelief, to believe that material once buried at least 3 meters deep can be easily retrieved.

On the hand it seems entirely reasonable to expect that DU's potential impacts be codified, before more of it is shipped here.

To do otherwise, could be invoking that tired and true folly, of choosing A while hoping for B.

If it means *EnergySolutions* has to put some shipments on hold during the study period, it doesn't seem like an unreasonable situation for them to manage.

(See Attached Copy of Comments)

WRONG ONE

- V. **Radioactive Waste Disposal – Request from Charles Judd to Address the Board on Disposal Capacity at EnergySolutions (Board Information Item)**
 - (1) Presentation to the Board
 - (2) Charles Judd Comments to the Board – Item b. Depleted Uranium

V. **Radioactive Waste Disposal**

- a. **Request from Charles Judd to Address the Board on Disposal Capacity at EnergySolutions (Board Information Item)**

Pumpkins, Tray and Beans/Representing:

- (1) **First Pumpkin – LLP, Long Life of Plant contracts**
- (2) **Second Pumpkin – Government Contracts, will bring in 10 million cubic feet of waste or about .3 million ~~DU~~**
- (3) **Third Pumpkin, Foreign Waste, no signed agreements, but EnergySolutions will try to put waste there**
- (4) **Fourth Pumpkin, Depleted Uranium (DU) and Clean-up Site waste**
- (5) **Tray with Beans – Additional waste in Section 32**

Charles Judd informed the Board on this item, the following are his comments:

I often ask my children when they return from school “what did you learn from school today?” and they will say “I can’t remember.” It is for this reason that I felt that it would be better to give you all a visual presentation and perhaps this way the Board would be able to remember my presentation today. For this reason I am using different sizes of pumpkins and some trays and beans to conduct my demonstration on the radioactive disposal waste capacity that is left at EnergySolutions, Clive site.

There are three cells at the Clive site that have been constructed to accept low-level radioactive waste. The first cell represents the LLRW cell (each pumpkin is marked and labeled with the initials of the waste that it represents’) which contains about 2.2 million cubic yards of cell space. This cell has been capped and completed, and there is nothing else that EnergySolutions will be putting in the cell. Maybe there are some issues with the cover on the cell, but it is closed and they will not be accepting any more waste to go on this cell.

Edd Johnson asked Charles Judd: Is this the Vitro waste?

Charles Judd response: No, it isn't. This was the new original one, which was located South of Vitro waste. Mr. Judd said this cell is now closed.

The second cell is now opened which is the Class A cell. This cell has the capacity of 3.8 million cubic yards. And next to it is the third cell, the Class- North, or the CAN cell which has the capacity of 1.7 million yards

(Pouring of beans in different cells represented the waste that was placed or capacity that was been taken as of August, 2008).

I showed you the document that *EnergySolutions* did to come up with the number on the cell. The thing they have to remember is that there were several things that had not been accounted for in the survey. Those things were represented by the beans in the different bags. Since that date, the waste has come in. Another requirement that has been made by *EnergySolutions* is at least the one-foot temporary cover or they have to have it cleaned, placed or filled over the waste. There has also been a lot filled waste that has been placed with the material. The last few years they have been adding about 25 percent (25%) of filled material with the waste that they have been accepting. The different sacks of beans, representing the waste would need to be accounted for in the cells that they have. *EnergySolutions* had been placing the waste in the Class A cell and some of the waste in the CAN cell. I will but the additional bags of beans in the Class A or CAN cell. You can see now after this demonstration that the Class A is almost completely full. There is some cell space, but that it is almost full. *EnergySolutions* has what is called the CAN cell which still has quite a large amount of cell space left to accept waste.

I now want to demonstrate to the Board the waste that has been committed to come to the *EnergySolutions*-Clive site. I have carefully measured each one of the pumpkins to the nearest gram, to figure out how much they weighed. He said that he had actually used water and a tub and a measuring device to come-up with pumpkins that were fairly close to quantities that are expected. **The first pumpkin, the largest pumpkin that reads: "LLP" waste meaning the "Long Life of Plant Contracts."** As you are aware there is probably 104 nuclear power plants that are

going to be decommissioned. Mr. Judd said that *EnergySolutions* has signed contracts with at least 85 of the nuclear power plants to accept the waste. There are one million cubic feet, a piece which ended up being 85 million or about 3.1 million cubic yards of cell space that has been reserved or contracted for this already, under this LLP contracts.

The second pumpkin represents government contracts. There are several large contracts that *EnergySolutions* has already signed. That would bring in at least 10 million cubic feet of waste or about point three (.3).

Take of
high lights

The third pumpkin represented "Foreign Waste," I don't think there were any signed agreement's yet, but regardless *EnergySolutions* is moving forward and trying to put some foreign waste in that site also.

The last or fourth pumpkin represented "Depleted Uranium (DU)," which has recently been of interest lately especially with something he would address later is the commitment to put ten feet of something over the top of it. He said this only meant that it could take a lot of cell space. He said he would talk about this later, but that DU is just a small amount compare to everything else. Mr. Judd said that he had read yesterday in the newspaper about another kind of waste which might be coming called S & M, some pipes and other things; again a small amount. Mr. Judd said that another type of waste that needs to be considered is that *EnergySolutions* owns a variety of sites around the country; Tennessee, South Carolina, and other places and those sights are scheduled to sent their waste here when they get cleaned up which is approximately point one (.1) there as an estimate.

The last pumpkin also represents Clive site cleanup which is the most important of all. What this means is when the Clive site closes down, the State of Utah needs to assure that there is enough cell space so that they can clean-up the site and put it all inside this cell, cap-it and go away. Mr. Judd said that this is the one that the public needs to be the most concern about, how are we going to get that last pumpkin into those cells?

If the Board would look and visualize, he could pick-up the LLP pumpkin and try and feed it and in any of the cells, it is very clear that it doesn't fit,

even by itself. I can put in DU foreign waste, Government waste, and other site clean-ups and I'm sure other waste besides that, and it probably fit them all in the others. But, when we're trying to get the most important part which is in the Clive site to this cell it's just not going to make it. I would suggest that the State of Utah needs to follow the lead of South Carolina. When the South Carolina site was getting ready to shut-down they got to a point where they started to monitor the amount of waste that was coming in, they put a cap on it and said "you can't bring in more than a certain amount of waste. I thought this was important because right now under contract with EnergySolutions there's more waste than EnergySolutions has the ability to take. I think this is important for the State of Utah to consider looking at a situation where they start to monitor the amount that is contracted or scheduled to come in to Clive. Because I don't think the State want's to get in a situation where there's no room for that last pumpkin, the close-up of the Clive site and that the State needed to have room for this last step.

Along
I would like to make one side note: they have mentioned that they might add another cell, the 11.e.2 cell. Mr. Judd said that his discussion with folks is that this was quiet a ways out. And they're not even sure how this was going to work out, but even with and I'll throw-up another tray for you (an additional tray that had beans). **This tray represented the size of the amended cell if EnergySolutions gets permission, which is still in question in Section 32** that's all the cell additional space that they would get, and even with that amendment they are still contracted for more waste than they have the ability to do. I would suggest that the State closely monitor the amount of waste that is scheduled or contracted to come into the State and be dispose there, so that we can make sure we have room to clean-up the site.

Do you have any questions? The Board had no questions.

Charles Judd had additional comments to make on Item V. b. -- Comments on Depleted Uranium (See Attach Copy)

Item V. b. Radioactive Waste Disposal – Consideration of a License Amendment
for Depleted Uranium disposal at EnergySolutions (Board Action Item)
Charles Judd - Comments

Charles Judd - Depleted Uranium Comments on Item V.b.:

My second issue has to do with Depleted Uranium (DU). It falls back somewhat in the same category that has to do with cell space. At the last Board meeting that was the first time I heard of the potential of putting ten feet of cover or ten feet of material over any DU that came into the site. Whether the site accepts DU or not, that's a decision that people smarter than myself need to make. But, the only consideration that I think needs to be made is that there needs to be enough money in the Surety fund to cover closing the site properly. If you put ten feet of cover over the entire DU, the cell space that you have is going to be used up, the Surety fund is going to be used up before EnergySolutions can complete the cell.

On page 10 of the information that I submitted to the Board was a page of the cell layout. It has the site drawing of how EnergySolutions is going to close the site. One of the things you should consider is how much waste is going to be produced on site, during site clean-up that also has DU in it. During the handling, the unloading, the placement, all of those things; DU will naturally contaminate areas around the site. DU will also have to have ten feet of cover on it, and if it does you're going to need a lot of cover material over the top to make sure DU is completely covered according with the ten feet. Just with this map that is on the demonstration (page 10), it shows how they are planning right now to close the site which is what the State approved last time. However, if EnergySolutions wants to do this new approach with the ten feet of DU, the Class A-North Cell the amount of cover that would be needed to do that properly it would need to be expanded significantly. I have done all of the calculations, but that he anticipated there were 5 million more dollars which would need to be put in the Surety fund to assure that DU can be covered with then feet of cover material and the proper cover is put as necessary.

- II. Rules (Board Action Item)**
 - a. Rulemaking: Hand Held Portable Dental X-Ray Systems, R313-28-80**

UTAH RADIATION CONTROL RULES

BOARD ACTION ITEM

Intraoral Dental Radiographic Systems (R313-28-80)

Craig Jones will discuss a proposed rulemaking involving hand-held portable dental X-ray systems [R313-28-80(12)]. The Board packet includes a copy of the proposed changes. Text to be added is underlined, while text to be deleted is bracketed and interlined.

Due to a Radiation Control Board action on September 9, 2005, Aribex of Orem, Utah was authorized to manufacture and distribute a portable hand-held dental X-ray system to Registrants in Utah. The authorization was given through the exemption process provided by R313-12-55, *Exemptions*.

The U.S. Food and Drug Administration as well as state radiation control programs have seen a recent proliferation of manufacturers and distributors of other hand-held X-ray devices offering their products in the U.S. market. A compilation of these hand-held X-ray devices has been developed and is included as part of this action item. A number of dentists have asked about the use of hand-held dental systems and the Executive Secretary is aware that exemptions for these other systems have been considered by manufacturers and Utah Registrants. It is the Executive Secretary's belief that a change in the rules is more appropriate than the consideration and issuance of multiple exemptions.

Recommendation

The Executive Secretary recommends that the Board approve the proposed changes to the Utah Radiation Control Rules, direct staff to file the changes for rulemaking, and direct staff to give notice to the public of a 30-day comment period.

R313. Environmental Quality, Radiation Control.

R313-28. Use of X-Rays in the Healing Arts.

R313-28-80. Intraoral Dental Radiographic Systems.

In addition to the provisions of R313-28-31, R313-28-32 and R313-28-35, the requirements of this section apply to x-ray equipment and associated facilities used for dental radiography. Criteria for extraoral dental radiographic systems are covered in R313-28-51, R313-28-52 and R313-28-53. Intraoral dental radiographic systems used must meet the requirements of R313-28-80.

(1) Source-to-Skin distance (SSD). X-ray systems designed for use with an intraoral image receptor shall be provided with means to limit source-to-skin distance to not less than:

- (a) 18 centimeters if operable above 50 kilovolts peak, or
- (b) 10 centimeters if not operable above 50 kilovolts peak.

(2) Field limitation. Radiographic systems designed for use with an intraoral image receptor shall be provided with means to limit the x-ray field so that:

(a) if the minimum source-to-skin distance (SSD) is 18 centimeters or more, the x-ray field, at the minimum SSD, shall be containable in a circle having a diameter of no more than seven centimeters; and

(b) if the minimum SSD is less than 18 centimeters, the x-ray field, at the minimum SSD, shall be containable in a circle having a diameter of no more than six centimeters.

(3) Exposure Initiation.

(a) Means shall be provided to initiate the radiation exposure by a deliberate action on the part of the operator, for example, the depression of a switch. Radiation exposure shall not be initiated without a deliberate action; and

(b) It shall not be possible to make an exposure when the timer is set to a "zero" or "off" position if either position is provided.

(4) Exposure Termination.

(a) Means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, a preset number of pulses, or a preset radiation exposure to the image receptor.

(b) An x-ray exposure control shall be incorporated into x-ray systems so that an exposure of more than 0.5 seconds can be terminated immediately by the operator.

(c) Termination of an exposure shall cause automatic resetting of the timer to its initial setting or to "zero."

(5) Exposure Indication. Means shall be provided for visual indication, observable from the operator's protected position, whenever x-rays are produced. In addition, a signal audible to the operator shall indicate that the exposure has terminated.

(6) Timer Linearity. For systems having independent selection of exposure time settings, the average ratio of exposure to the indicated milliamperere-seconds product obtained at two consecutive timer settings or at two settings not differing by more than a factor of two shall not differ by more than 0.10 times

their sum.

(7) Exposure Control Location and Operator Protection.

(a) Stationary x-ray systems shall be required to have the x-ray exposure control mounted in a protected area or a means to allow the operator to be at least 2.7 meters (9.0 feet) from the tube housing assembly while making exposures; and

(b) Mobile and portable x-ray systems which are:

(i) used for greater than one week in the same location, for example, a room or suite, shall meet the requirements of R313-28-80(7)(a); or

(ii) used for less than one week in the same location shall be provided with either a protective barrier at least two meters high for operator protection, or means to allow the operator to be at least 2.7 meters (nine feet) from the tube housing assembly while making exposures.

(8) Exposure Reproducibility. When all technique factors are held constant, the coefficient of variation of exposure shall not exceed 0.05 for certified x-ray systems or 0.10 for non-certified x-ray systems. This requirement applies to clinically used techniques.

(9) mA/mAs Linearity. The following requirements apply when the equipment is operated on a power supply as specified by the manufacturer for fixed x-ray tube potentials within the range of 40 to 100 percent of the maximum rated potentials.

(a) For equipment having independent selection of x-ray tube current, the average ratios of exposure to the indicated milliamperere-seconds product obtained at two consecutive tube current settings or, when the tube current selection is continuous, two settings differing by no more than a factor of two shall not differ by more than 0.10 times their sum.

(b) For equipment having a combined x-ray tube current-exposure time product selector but not a separate tube current selector, the average ratios of exposure to the indicated milliamperere-seconds product obtained at two consecutive mAs selector settings, or when the mAs selector provides continuous selection, at two settings differing by no more than a factor of two shall not differ by more than 0.10 times their sum.

(10) Accuracy. Deviation of technique factors from indicated values shall not exceed the limits specified for that system by its manufacturer. In the absence of manufacturer's specifications the deviation shall not exceed ten percent of the indicated value.

(11) Administrative Controls.

(a) Patient and film holding devices shall be used when the technique permits and holding is required.

(b) The x-ray tube housing and the position indicating device shall not be hand-held during an exposure.

(c) The x-ray system shall be operated so that the useful beam at the patient's skin does not exceed the requirements of R313-28-80(2).

(d) Dental fluoroscopy without image intensification shall not be used.

(12) Hand-held Portable Dental X-ray Systems.

(a) X-ray equipment designed to be hand-held shall comply with Section R313-28-31, excluding Subsection R313-28-31(5), and with Section R313-28-80, excluding Subsections R313-28-80(7)(b) and R313-28-80(11)(b).

(b) Protective shielding of at least 0.5 millimeter lead equivalence shall be provided for the operator to protect the operator's torso, hands, face, and gonads from backscatter radiation. If the protective shielding is a backscatter shield attached to the x-ray unit, the shield shall be positioned as close to the patient as possible and the operator shall take care to remain in a protective position.

(c) Portable radiation machines designed to be hand-held are exempt from Subsection R313-28-35(7). The portable radiation machines shall be held by the tube housing support or handle.

(d) In addition to the requirements of Subsection R313-28-350(1), each operator shall complete the training program supplied by the manufacturer prior to using the x-ray unit. Records of training shall be maintained on file for examination by representatives of the Executive Secretary.

KEY: dental, x-ray, mammography, beam limitation

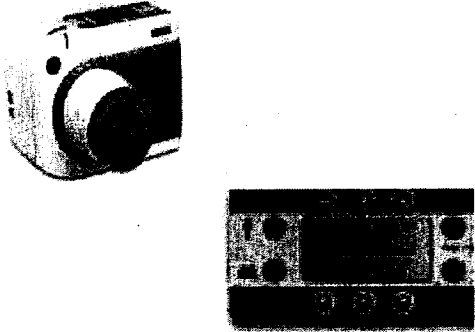
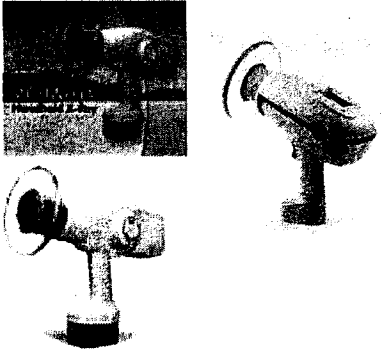
Date of Enactment or Last Substantive Amendment: [March 16, 2007]

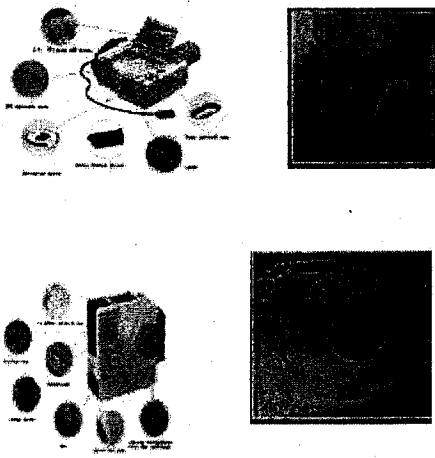

Notice of Continuation: October 5, 2006

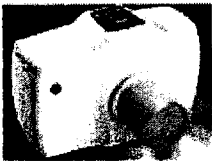
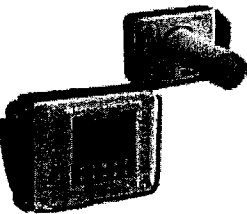

Authorizing, and Implemented or Interpreted Law: 19-3-104; 19-3-

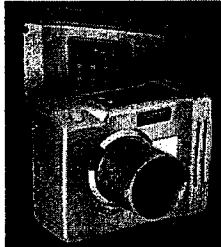
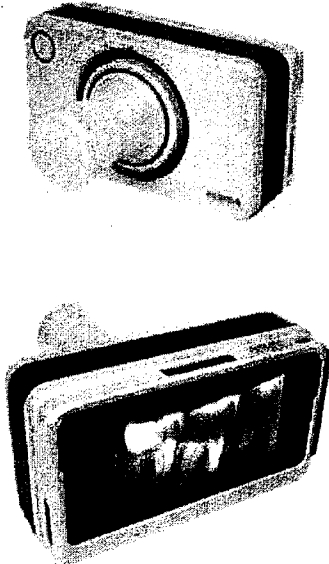
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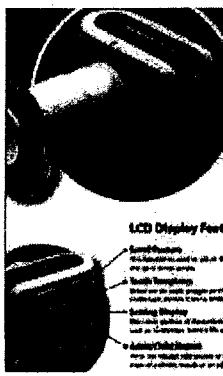
List of Handheld X-ray Devices Available in the United States
 Reviewed by CRCPD's H-7 Committee on Diagnostic X-ray
 May 6, 2009

Product(s)	Patent		Trademark App	Companies	Additional Info
	Digital X Camera	Portable X Device			
<p>Anyray</p> <p>FDA 510(k): Aug 2008; Predicate: Aribex NOMAD</p> 		X		<p><u>Manufacturer:</u> Noh Chang-Jun, CEO VATECH Co., Ltd. 473-4 Bora-dong, Giheung-gu Yongin-si, Gyeonggi-do 449-904 Republic of Korea</p> <p><u>US Subsidiary:</u> Richard Hyun, President E-WOO Technology USA, Inc. 256 N. Sam Houston Parkway, Suite 115 Houston, TX 77060</p>	<p>Mr. Noh is CEO & Managing Director Tel +82-31-679-2052 Fax +82-31-377-1882 www.vatech.co.kr www.e-wootech.com</p> <p>E-WOO Factory: 75-11 Seogu-ri, Dongtan-myeon Hwaseong-si, Gyeonggi-do 445-811 Republic of Korea</p> <p>Richard Hyun (hyun@ewoousa.com) Pete Steinhausen is VP Sales Tel +1-201-574-5900 Fax www.ewoousa.com</p>
<p>Aribex</p> <p>NOMAD, NOMAD PRO, NOMAD EXAMINER</p> 		X		<p><u>Manufacturer:</u> Aribex, Inc. 744 South, 400 East Orem, UT 84097 USA Toll Free: 1-866-340-5522 Phone: (801) 226-5522 Fax: (801) 434-7233</p>	<p>National Sales Manager Tom Batz Cell: 817-528-7670 tbatz@aribex.com</p>

Product(s)	Patent		Trademark App	Companies	Additional Info
	Digital X Camera	Portable X Device			
DX3000 ADX4000 FDA 510(k): Jul 2007 (ADX4000); Predicate: Aribex NOMAD 	X	X		Manufacturer: Ryu Seung-Bum DEXCOWIN Co., Ltd. #606, Woolim Lions Valley II 680 Gasan-dong, Geumcheon-gu Seoul 153-787 Republic of Korea IP Law Firm: Park Kyung-Wan, Patent Attorney GIP Patent Law Counselors #101, Baeklim Building 635-7 Yeoksam-dong, Gangnam-gu Seoul 135-933 Republic of Korea	Mr. Ryu is the overseas representative Ryu Seung-Bum (sbryu@dexcowin.com) Tel +82-2-2027-2880 Fax +82-2-2027-2884 www.dexcowin.com Tel +82-2-551-8060 Fax +82-2-551-8061 www.giplaw.co.kr
Handy Ray KX 60 FDA 510(k): N/A 				Manufacturer: Asahi	

Product(s)	Patent		Trademark App	Companies	Additional Info
	Digital X Camera	Portable X Device			
Ordix Diox Prox (Bio-Ray) FDA 510(k): Sep 2008 (Diox, Prox); Predicate: Genoray PORT X II   		X		<p>Manufacturer: Kwon Young-Bae, Managing Director DigiMed Co., Ltd. #715, World Meridian Venture Center II 426-5 Gasan-dong, Geumcheon-gu Seoul 153-803 Republic of Korea</p> <p>US Importer / Business Dev Partner: Shin Kuk-Yoo (Alex Shin) LSK BioPartners, Inc. 215 S. State Street, Suite 100B Salt Lake City, UT 84111</p> <p>US Dental OEM Distributor: Kim Antol, President Sigma Biomedics, Inc. 1607 Barclay Boulevard Buffalo Grove, IL 60089</p> <p>US Rep Organization: Jack Miller, President Global Practice Solutions, LLC 6203 Jadecrest Dr. Spring, TX 77389</p> <p>US Dental Dealer: Al Sosa, President Chicago X-Ray Systems, Inc. 65 E. Palatine Road, Suite 121 Prospect Heights, IL 60070</p> <p>US Veterinary OEM Distributor: Kurt Lieber, President Dentalaire Products 17150 New Hope Street, Suite 407 Fountain Valley, CA 92708</p> <p>US Veterinary Dealer: James Cleary, President & CEO MWI Veterinary Supply, Inc. 651 S. Stratford Drive, Suite 100 Meridian, ID 83642</p>	<p>Tel +82-2-2025-8780 Fax +82-2-2025-8782 www.digimed.co.kr</p> <p>Alex Shin (skyone@lskbiopartners.com) Tel +1-801-303-7440 Fax +1-801-303-7455 www.lskbiopartners.com</p> <p>(dba Sigma Digital X-Ray) Tel +1-847-419-0669 Fax +1-847-419-0675 www.sigmadigitalxray.com</p> <p>Jack Miller (jmiller@gpssurgical.com) Tel +1-888-285-1289 Fax: +1-281-596-7577 www.gpssurgical.com</p> <p>Al Sosa (al.sosa@yahoo.com) chicagoxray@yahoo.com Tel +1-847-459-3889 Fax +1-847-459-9214 www.chicagox-ray.com</p> <p>Kurt Lieber (klieber@dentalaireproducts.com) Ron Anderson is VP Operations Tel +1-714-540-9969 Fax +1-714-540-9947</p> <p>Tel +1-208-955-8930 Fax John Francis is VP & Specialty Resources GM Kristin Krawczyk is Equipment PM</p>

Product(s)	Patent		Trademark App	Companies	Additional Info
	Digital X Camera	Portable X Device			
PORT-X II FDA 510(k): Jan 2007; Predicate: Aribex NOMAD 		X	X	<u>Manufacturer:</u> Park Mun-Kyu, Overseas Sales Director Genoray Co., Ltd. #512, Byucksan Technopia 434-6 Sangdaewon 1-dong, Jungwon-gu Seongnam-si, Gyeonggi-do 462-716 Republic of Korea	Park Mun-Kyu (mkpark@genoray.com) Tel +82-31-737-8020 (Ext.102) Fax +82-31-737-8025 www.genoray.com
Poskom FDA 510(k): 2009? 	X	X		<u>Manufacturer:</u> Park Jong-Lae, CEO Poskom Co., Ltd. #405, Unitech Ville Building 1141-2 Beaksuk-dong, Ilsan-gu Goyang-si, Gyeonggi-do 411-722 Republic of Korea <u>US Affiliate:</u> United Radiology Systems, Inc. 151 S. Pflugsten Road, Unit T Deerfield, IL 60015 <u>IP Law Firm:</u> Seo Jae-Sung, Patent Attorney Dyne Patent & Law Firm 3rd Floor, Sinmyeong Building 645-21 Yeoksam-dong, Gangnam-gu Seoul 135-910 Republic of Korea	Tel +82-31-906-9007 Fax +82-31-908-4208 www.poskom.co.kr www.poskom.com Tel +1-847-291-0999 Fax +1-847-291-0999 Seo Jae-Sung (jsseo@dyneip.co.kr) Tel +82-2-557-0231 Fax +82-2-557-1377 www.dyneip.co.kr

Product(s)	Patent		Trademark App	Companies	Additional Info
	Digital X Camera	Portable X Device			
Rextar FDA 510(k): 2009? 	X	X		Manufacturer: SungWon Econet (성원에코넷) #1513, Doosan Weve Centium 631 Dungchon-dong, Gangseo-gu Seoul 157-030	Benjamin Shin (benjamin@sweconet.co.kr) Tel +82-2-3664-2874 Fax +82-2-3661-2267 www.sweconet.co.kr
Solo FDA 510(k): none to-date 		X		Manufacturer: Ben Yoo, President CamSight Co., Inc. 3380 N. San Fernando Road Los Angeles, CA 90065 US Rep Organization: Jack Miller, President Global Practice Solutions, LLC 6203 Jadecrest Dr. Spring, TX 77389	Tel +1-323-259-1900 Fax +1-323-259-1916 "CamSight Korea" Factory: 2nd Floor, Lotus-Ville Building 141-13 Nonhyun-dong, Gangnam-gu Seoul 135-010 Republic of Korea Tel +82-2-3448-0048 Fax +82-2-3448-0049 Jack Miller (jmiller@gpssurgical.com) Tel +1-888-285-1289 Fax: +1-281-596-7577 www.gpssurgical.com

If you have knowledge of other new handheld x-ray devices or would like additional information on the ones that are identified in the attachment, please contact Jennifer Elee at (318-362-5367) or by e-mail at (Jennifer.elee@la.gov).

- V. **Radioactive Waste Disposal**
 - a. **Request from EnergySolutions to Address the Board: Proposal Regarding Condition No. 35 (Board Action Item)**

HOLLAND & HART^{LLP}



Craig D. Galli
Phone (801) 799-5842
cgalli@hollandhart.com
48668.0012

November 2, 2009



VIA HAND DELIVERY

Dane Finerfrock
Executive Secretary
Radiation Control Board
Building #2, Room 212
168 North 1950 West
Salt Lake City, UT 84116

Re: License Condition No. 35

Dear Mr. Finerfrock:

On behalf of EnergySolutions and pursuant to Utah Administrative Code R313-17-8(3), EnergySolutions hereby requests for inclusion on the November Board Calendar as an action item the attached proposal to withdraw the "Notice of Agency Action to Consider Proposed License Condition No. 35," dated October 21, 2009, and request to adopt either Proposed Pathway No. 1 or No. 2 on the attached "EnergySolutions' Proposal Regarding Condition No. 35" (the "Proposal"). EnergySolutions believes that the Proposal (1) provides sufficient protection of the environment; (2) better comports with applicable law; and (3) conserves time and resources of the Board, the Division of Radiation Control, and EnergySolutions. Attached is the Proposal and accompanying Power Point presentation.

Counsel for EnergySolutions will be prepared to present the Proposal at the upcoming Board meeting on November 10, 2009.

Thank you for your consideration of the attached.

Sincerely yours,

Craig D. Galli

CDG:bwt
Enclosures

cc: Fred Nelson, Utah Office of Attorney General
Laura Lockhart, Utah Office of Attorney General

Holland & Hart LLP

Phone (801) 799-5800 Fax (801) 799-5700 www.hollandhart.com

60 East South Temple Suite 2000 Salt Lake City, UT 84111

Aspen Boulder Carson City Colorado Springs Denver Denver Tech Center Billings Boise Cheyenne Jackson Hole Las Vegas Reno Salt Lake City Santa Fe Washington, D.C. ☪

Options Regarding ENERGYSOLUTIONS' Condition 35

November 10, 2009

Presentation to the State of Utah
Radiation Control Board

Craig D. Galli

Background

- Current license allows for disposal of DU
 - DU has safely been disposed for 18 years
- NRC has identified no technical basis to justify a DU moratorium and stated in the September Board meeting that DU poses, "No immediate public health and safety concern"
- September Board Action – rejected moratorium on DU disposal by 8-3 vote

September Board Action

- Burial depth - 10 feet below top cover
- Revised Disposal Embankment Design
- Performance Assessment
 - To follow NRC approach
 - Compliance period = 10,000 years
 - To be revised based on DRC review and NRC rulemaking
- Remediation/Corrective Measures
- Surety – provides funds for any non-compliant disposal

October Board Action

- Accepted HEAL's amendment to EnergySolutions License which is tantamount to a moratorium on DU
 - In direct conflict with Board's September action
 - Contrary to NRC's testimony and current rulemaking process

Overstepping of Board's Authority

- Board overstepped its statutory authority:
 - *"The executive secretary may, as authorized by the board: (i) issue licenses, registrations, and certifications, (ii) review and approve plans."* Utah Code Ann. § 19-3-108(2)(c).
- Only the Executive Secretary is authorized to process license amendments:
 - *"The terms and conditions of all licenses shall be subject to amendment, revision, or modification or the license may be suspended or revoked by reason of amendments to the Act, or by reason of rules, and orders issued by the Executive Secretary."* R313-19-61(1).

The Board Must Comply With Its Owns Procedures and Rules

"Administrative regulations cannot be ignored or followed by the agency to suit its own purposes. Such is the essence of arbitrary and capricious action. Without compelling grounds for not following its rules, an agency must be held to them."
Department of Community Affairs v. Merit System Council, 614 P.2d 1259, 1263 (Utah 1980).

Consequences of October Board Action

- By this action, Utah's Agreement State status is in jeopardy as articulated by the NRC in the September 2009 Board Meeting
- Continuing on the Board's current pathway will result in expensive and time consuming litigation
- Supplants technical licensing decisions of the Executive Secretary with an administrative law judge

Three Potential Legal Pathways

- 1: Re-adopt September Board Motion
- 2: Refer action to Executive Secretary
- 3: Rulemaking

Legal Pathway # 1 Re-Adopt September Board Action

- Complies with rules: R313-22-38 (allows licensee-initiated license modifications that satisfy applicable standards)
- Protective of environment: Voluntary conditions exceed current requirements
- Preserves role of Executive Secretary
- HEAL retains appeal right

Legal Pathway # 2 Refer Action to Executive Secretary

- Complies with rules: U.C.A. § 19-3-103.5(a) (the Board may request additional information re license amendments); R313-25-12 (Executive Secretary determines what is "necessary in order to: (a) protect health or to minimize danger to life or property")
- Preserves role of Executive Secretary
 - Board receives technical analysis from the Executive Secretary and the Division
- HEAL retains appeal right

Legal Pathway # 3 Rulemaking

- Rulemaking Requirement: *"The board may adopt rules more stringent than corresponding federal regulations for the purpose described in Subsection (8) only if it makes a written finding after public comment and hearing and based on evidence in the record that corresponding federal regulations are not adequate to protect public health and the environment of the state."* Utah Code Ann. § 19-3-104(9)
- No evidence exists that federal regulations are inadequate
- Places agreement state status at risk
- The NRC has testified that there is no immediate public health and safety concern



ENERGYSOLUTIONS' PROPOSAL REGARDING CONDITION NO. 35

EnergySolutions sets forth below its proposal to avoid formal agency action and litigation regarding Condition No. 35. This Proposal is designed to comply with applicable legal requirements and reduce unnecessary burdens resulting from licensing by formal adjudication.

BACKGROUND

- **Current License Allows for Receipt of DU.** License Condition No. 16.L allows EnergySolutions to receive depleted uranium ("DU") as Class A waste.
 1. **Initial Rejection of Moratorium by Rulemaking.** At its September 22, 2009 meeting, the Utah Radiation Control Board (the "Board") considered and rejected initiating rulemaking to impose a moratorium on the receipt of additional shipments of DU. See Board 9/22/09 Minutes at 7 (Ex. A).
 2. **EnergySolutions' Voluntary Commitments Regarding DU.** By letter dated September 21, 2009 (Ex. B), EnergySolutions set forth the voluntary commitments regarding the disposal of DU pertaining to (a) disposal depth, (b) performance assessment, and (c) Revised Disposal Embankment Design. The Board adopted the commitments contained in the September 21, 2009 Letter at the September 22, 2009 Board meeting. Ex. A at 9. These commitments had been discussed and agreed to with the Division of Radiation Control (the "Division"), which memorialized the commitments in the Condition No. 35 prepared in September (the "September Condition No. 35") (Ex. C).
 3. **Revision of Terms of the September Condition No. 35.** At the October 13, 2009 Board meeting, the Executive Secretary presented the September Condition No. 35 to the Board for final approval. Rather than approving the language of the September Condition No. 35 presented by the Executive Secretary and agreed to by EnergySolutions, the Board voted to propose amending Condition No. 35 based on a submission by HEAL Utah ("Proposed License Condition No. 35"). Ex. D.
 4. **October 21, 2009 Notice of Agency Action.** The Board issued the Notice of Agency Action, dated October 21, 2009 (the "Notice") (Ex. E), which (a) initiated a 30-day notice and comment period on the Proposed License Condition No. 35, and (b) designated the Board's consideration of Proposed License Condition No. 35 based on a formal adjudicative proceeding. Presumably, the formal adjudicative proceeding will be conducted by an administrative law judge which will consider the evidence favoring and disfavoring the Proposed License Condition No. 35 and make a recommended licensing decision to the Board. See Utah Code Ann. § 19-1-301(6).
 5. **Consideration of Possible Pathways.** During the October 13, 2009 proceedings, the Board did not have the opportunity to fully consider the legal considerations associated with its options. For the Board's convenience, EnergySolutions sets forth the options or "pathways" it believes the Board has before it and the legal and policy considerations with respect to each.

SUMMARY OF OPTIONS

PATHWAY NO. 1 (preferred by EnergySolutions): Under Pathway No. 1, the Board would withdraw the Notice and approve the September Condition No. 35.

PATHWAY NO. 2 (acceptable to EnergySolutions): Under Pathway No. 2, the Board would withdraw the Notice and “remand” (send) the issue back to the Executive Secretary to provide the Board with explicit technical findings based on the applicable standard set forth in Utah Admin. Code R313-25-12 governing “Conditions of Licenses”:

The Executive Secretary may incorporate, by rule or order, into licenses at the time of issuance or thereafter, additional requirements and conditions with respect to the licensee's receipt, possession, and disposal of waste as the Executive Secretary deems appropriate or necessary in order to: (a) protect health or to minimize danger to life or property.

PATHWAY NO. 3 (is legal but appears infeasible): Under Pathway No. 3, the Board would initiate rulemaking to impose a moratorium on the receipt of DU. The Board appears to have previously rejected this approach based on two prudent considerations. First, as reflected in the September 22, 2009 Board Minutes, “[t]he NRC and attorneys had interpreted that the adoption of a Moratorium may cause some very significant issues.” Ex. A at 7. Second, as explained in some detail in the memorandum, dated June 2, 2009, from the Division’s counsel, Laura Lockhart: “Compliance with Utah Code Ann. §§ 19-3-104(8) and (9) would be required. Those provisions limit the authority of the Board to make rules.... What is the evidence that corresponding federal regulations either are or are not adequate to protect public health and the environment?” Ex. F. Because EnergySolutions believes that no such evidence exists, Pathway No. 3 appears infeasible. The relevant statutory provision under Utah Code Ann. § 19-3-104(9) states:

The board may adopt rules more stringent than corresponding federal regulations for the purpose described in Subsection (8) only if it makes a written finding after public comment and hearing and based on evidence in the record that corresponding federal regulations are not adequate to protect public health and the environment of the state.

CURRENT PATHWAY (unacceptable to EnergySolutions): The current pathway or approach adopted by the Board in the October 13, 2009 meeting is reflected in the Notice, i.e., the Board has proposed amending the original language of Condition No. 35 to create a moratorium on the receipt of DU above 1 metric ton. Such a proposed moratorium, if approved by the Board, would effectively cancel numerous future shipments of DU to EnergySolutions and result in a concomitant loss of revenue exceeding a million dollars in the next twelve months. As explained in detail below, the Current Pathway (1) exceeds the Board authority resulting in legal exposure to the Board, (2) imposes an arbitrary ceiling that has no relation to regulatory standards; (3) results in a substantial commitment of time and resources of the Board, Division, and EnergySolutions, and (4) as discussed by the NRC’s representatives at the Board’s September meeting, a moratorium would raise significant issues with regard to Utah’s Agreement State status.

ANALYSIS OF OPTIONS

I. PATHWAY NO. 1—Withdraw the Notice and Approve the September Condition No. 35

A. Legality

- **Board's Authority.** The Board clearly has the authority to revisit and reaffirm its initial approval of EnergySolutions' voluntary commitments concerning the disposal of DU set forth in the September 21, 2009 letter and September Condition No. 35.
- **Regulatory Compliance.** The September Condition No. 35 complies with the regulations governing "Amendment of Licenses at Request of Licensee." See Utah Admin. Code R313-22-38 (allowing licensee-initiated license modifications that satisfy applicable standards).

B. Public Policy

- **Consistency with Regulatory Intent.** The current regulations contemplate that the Executive Secretary, not the Board, issue license amendments. R313-19-61(1) ("*The terms and conditions of all licenses shall be subject to amendment, revision, or modification or the license may be suspended or revoked by reason of amendments to the Act, or by reason of rules, and orders issued by the Executive Secretary.*").
- **Consistency with Technical Expertise of Executive Secretary.** The Executive Secretary, and Division staff, have the technical expertise to establish license amendments subject to review by and appeal to the Board.

II. PATHWAY NO. 2—Withdrawal of the Notice and Remand to the Executive Secretary

A. Legality

- **Board Authority.** The Board clearly has authority to remand Condition No. 35 to the Executive Secretary to request additional analysis and recommendations. Indeed, the only delegated authority relating explicitly to the Board's involvement in the pre-appeal licensing process provides as follows: "*The board may require submittal of specifications or other information relating to licensing applications...*" Utah Code Ann. § 19-3-103.5(a).
- **Regulatory Compliance.** The Board can specifically request that the Executive Secretary, on remand, determine whether Proposed Revised Condition No. 35 is "*appropriate or necessary in order to protect health or to minimize danger to life or property.*" Utah Admin. Code R313-25-12.

B. Public Policy

- **Consistency with Regulatory Intent.** Pathway No. 2, like Pathway No. 1, is consistent with the regulatory intent that the Executive Secretary, not the Board, undertake the initial technical evaluation of compliance with applicable technical standards.

III. PATHWAY NO. 3—Commence Rulemaking to Impose a Moratorium

A. Legality

- **Inability to Comply with Utah Code Ann. § 19-3-104(9).** The impetus on the part of some is to impose a moratorium on the receipt of DU based on public policy, not on the need to protect human health and safety. Such an approach violates Utah Code Ann. § 19-3-104 (9) which requires “*a written finding after public comment and hearing and based on evidence in the record that corresponding federal regulations are not adequate to protect public health and the environment of the state.*”

B. Public Policy

- **Inconsistency with NRC.** As already mentioned, the Board received information from “[t]he NRC and attorneys ... that the adoption of a Moratorium may cause some very significant issues.” Ex. A at 7.

IV. CURRENT PATHWAY—Impose a Moratorium by Formal Adjudication

A. Legality

- **Licensing Authority.** The legislature delegated licensing authority to the Executive Secretary with oversight from the Board: “*The executive secretary may, as authorized by the board: (i) issue licenses, registrations, and certifications, (ii) review and approve plans.* Utah Code Ann. § 19-3-108(2)(c). The Board can issue orders to the Executive Secretary if such an order is “*necessary to enforce the provisions of this part.*” *Id.* § 19-3-103.5(a). For example, if the Board concludes that a licensing decision issued by the Executive Secretary violates applicable law, or the Board desires consideration of additional information by the Executive Secretary to be presented to the Board, the Board can issue an appropriate order. But oversight over licensing does not extend to the executive function of issuing licenses, which authority has been expressly reserved to the Executive Secretary.
- **Rulemaking Authority.** The legislature delegated authority to the Board to promulgate regulations governing the licensing process. *Id.* § 19-3-104.
- **Current Licensing Regulations.** The Board has promulgated regulations covering both the procedural and substantive requirements governing licensing. These regulations give the Executive Secretary authority in the first instance for licensing subject to administrative appeal to the Board:
 - “*‘License’ means a license issued by the Executive Secretary in accordance with the rules adopted by the Board.*” Utah Administrative Code R313-12-3.
 - “*The terms and conditions of all licenses shall be subject to amendment, revision, or modification or the license may be suspended or revoked by reason of amendments to the Act, or by reason of rules, and orders issued by the Executive Secretary.*”) R313-19-61(1).
 - “*Persons shall not receive, possess, or dispose of waste at a land disposal facility unless authorized by a license issued by the Executive Secretary pursuant to R313-25 and R313-22.*” R313-25-4.

- **Required Adherence to the Board's Own Regulations.** Once the Board (or any other agency) issues licensing or permitting procedures, it must adhere to them unless and until the applicable regulations are amended through formal rulemaking procedures. It is a well-settled principle of both state and federal administrative law that “[a]gencies are under an obligation to follow their own regulations, procedures, and precedents, or provide a rational explanation for their departure.” *Utahns for Better Transportation v. US DOT*, 305 F.3d 1152, 1165 (10th Cir. 2002); *see also Tolman v. Salt Lake County Attorney*, 818 P.2d 23, 27 (Utah Ct. App. 1991) (stating that agencies are bound by procedural rules “in statutes, ordinances, or even in an administrative body’s own rules.”). “Administrative regulations cannot be ignored or followed by the agency to suit its own purposes. Such is the essence of arbitrary and capricious action. Without compelling grounds for not following its rules, an agency must be held to them.” *Department of Community Affairs v. Merit System Council*, 614 P.2d 1259, 1263 (Utah 1980).
- **Current Pathway Violates the Board's Own Regulations.** The Current Pathway violates the Board’s current regulations in two ways. First, the Board has usurped the responsibility for processing a license decision from the Executive Secretary when the Board’s own regulations explicitly provide that the Executive Secretary fills this executive role. The regulations further provide that the Board exercises an adjudicative role during appeals subsequent to the Executive Secretary’s licensing decision. Second, the Notice establishes a licensing process through formal adjudication, whereas the regulations provide for licensing following established procedures and standards applied by the Executive Secretary and the Division.

B. Public Policy

- **Delegation of Licensing to an Administrative Law Judge.** The Notice contemplates that the “proceeding” to determine “whether to adopt the license condition” will be “conducted using formal adjudicative proceeding.” Ex. E at 1. This proceeding will be heard by an administrative law judge which will conduct the proceeding and make a recommendation to the Board. Utah Code Ann. § 19-1-301(6). Essentially the Current Pathway not only removes the Executive Secretary’s duty to process a proposed license amendment, but that function will now be performed by an administrative law judge who has no technical training, expertise or licensing experience to establish licensing conditions and submit recommended licensing decisions to the Board. In contrast, formal adjudication was previously used only to hear appeals of decisions of the Executive Secretary, not to issue or amend licenses. This new approach could create problematic precedent that the Board has not carefully considered.

CONCLUSION

We understand that the Board (or Board counsel) may view the Board’s authority to assume licensing responsibility more expansively based on the Board’s general oversight authority set forth above. EnergySolutions respectfully disagrees and submits that a court would require that the Board follow its own licensing procedures and regulations until they are amended through the rulemaking process. To avoid litigation of this issue, EnergySolutions respectfully requests that the Board withdraw the Notice and adopt either Pathway No. 1 or Pathway No. 2, as set forth above.

Exhibit A

9/22/09 Board Meeting Minutes

MINUTES
OF
THE UTAH RADIATION CONTROL BOARD

September 22, 2009

Department of Environmental Quality, DEQ Building #2

Conference Room 101

168 N 1950 W

Salt Lake City, Utah 84114-4850

BOARD MEMBERS PRESENT

Peter A. Jenkins, M.S., CHP, Chair
Dane L. Finerfrock, Executive Secretary
Scott Bird
Patrick D. Cone
Frank D. DeRosso, MSPH, CIH
Christian K. Gardner
Colleen Johnson
Edd C. Johnson
Douglas S. Kimball, DMD
Joseph K. Miner, M.D., MSPH
Amanda Smith, Acting DEQ Executive Director
John W. Thomson, M.D.
David A. Tripp, Ph.D.

BOARD MEMBERS ABSENT/EXCUSED

Elizabeth Goryunova, M.S., Vice Chair

DRC STAFF/OTHER DEQ MEMBERS PRESENT

Edith Barker, DRC Staff
Mario A. Bettolo, DRC Staff
Bill Craig, DRC Staff
David Esser, DRC Staff
Phil Goble, DRC Staff
John Hultquist, DRC Section Manager
Craig Jones, DRC Section Manager
Laura Lockhart, Attorney, Atty General's Office
Yoli Necochea, DRC Staff
Fred Nelson, Attorney, Atty General's Office
Loren Morton, DRC Section Manager
Thomas Rushing, DRC Staff

DRC STAFF/OTHER DEQ MEMBERS PRESENT - CONTINUED

William J. Sinclair, DEQ Deputy Director
Donna Spangler, PIO, DEQ - PPA Staff

PUBLIC

Sarah Anderson, Exchange Monitor
Bob Archibald, Concerned Citizen
Beatrice Braidford, Snake River Alliance, Idaho
Krista Bowery, Concerned Citizen
Anna Bradford, U.S. Nuclear Regulatory Commission (NRC)
Larry Camper, U.S. Nuclear Regulatory Commission (NRC)
Jeff Cisy, Concerned Citizen
Gina Clifford, Concerned Citizen
Richard Codell, U.S. Nuclear Regulatory Commission (NRC)
Sue Corth, Concerned Citizen
Rolene Coulter, HEAL-Utah
John Coultus, HEAL-Utah
Helene Cumo, Concerned Citizen
David Esh, U.S. Nuclear Regulatory Commission (NRC)
Fyndo, Citizen
George Gates, HEAL-Utah
Claire Geddes, Concerned Citizen
John Greeves, Tacisman Int.
Chris Grossman, U.S. Nuclear Regulatory Commission (NRC)
Sandra Hays, Concerned Citizen

PUBLIC - CONTINUED

James Holtkamp, Holland & Hart law firm
Polly Hough, Concerned Citizen
Mark LeDoux, EnergySolutions, LLC
Lisa London, U.S. Nuclear Regulatory
Commission (NRC)
Thomas Magette, EnergySolutions, LLC
Jamine Morgan, HEAL-Utah
Mary Ellen Navas, Concerned Citizen
Amy O'Conner, Concerned Citizen
James O'Neal, Concerned Citizen from Provo, Utah
Vanessa Pierce, HEAL-Utah
Sue Rice, Cavanagh Services
Mary Rogers, HEAL-Utah
Aurora E. Shlien, Citizens for Sustainability
Daniel Shrum, EnergySolutions, LLC
Eric Spreng, HEAL-Utah
Kent Staheli, Concerned Citizen
Gregory Suber, U.S. Nuclear Regulatory
Commission (NRC)
Christopher Thomas, HEAL-Utah
Duncan White, U.S. Nuclear Regulatory
Commission (NRC)
Cherry Wong, Woman Concerned
Mike Zody, CBN

GREETINGS/MEETING CALLED TO ORDER

Peter A. Jenkins, Chairman, called the board meeting to order at 3:02 p.m. and welcomed the board members and the public. He indicated that if the public wished to address any items on the agenda, they should sign the public sign-in sheet. Those desiring to comment would be given an opportunity to address their concerns during the comment period.

I. APPROVAL OF MINUTES (Board Action Item)

a. Approval of the Minutes from the July 14, 2009 Meeting

Peter A. Jenkins, Chair, asked the board members if they had any corrections to the minutes from the July 14, 2009 board meeting. Edd C. Johnson requested the following correction to the minutes:

1. Page 9. Item V. c., under subtitle "Radioactive Waste: Requests to Board to Provide Comments on Depleted Uranium Disposal (Board Information Item), Questions by the Board," second paragraph, second sentence, which reads: Chairman Jenkins said Dr. Moench had mentioned the National Academy of Science in his presentation . . . if he was referring to the BEAR (Biological Effects of Atomic Radiation) Report. Change to read: "BEIR (Biological Effects of Ionizing Radiation) . . ."

MOTION MADE BY SCOTT BIRD TO APPROVE THE MINUTES OF JULY 14, 2009 WITH THE AMENDED CHANGES

MOTION SECONDED BY CHRISTIAN K. GARDNER

MOTION CARRIED AND PASSED

**II. RULES
No Items**

**III. RADIOACTIVE MATERIALS LICENSING/INSPECTION
No Items**

**IV. X-RAY REGISTRATION/INSPECTION
No Items**

V. Radioactive Waste

a. Responses from the U.S. Nuclear Regulatory Commission (NRC) to Board Questions Regarding Disposal of Depleted Uranium

Peter A. Jenkins, Chairman, informed the Board that he had sent a memorandum regarding the Board's discussion for today's meeting. Chairman Jenkins said that the Board had heard presentations from both sides on the issue of Depleted Uranium (DU). He said the presentation

from the U.S. Nuclear Regulatory Commission (NRC) today would fill-in the last piece of deliberation. Chairman Jenkins said that he had received a significant amount of comments from the public on the topic of DU. He informed the Board and those attending the meeting that the Board would not be accepting public comments on this agenda item today.

Chairman Jenkins informed the public that for the next two days the U.S. NRC would be holding a public workshop on DU and hearing public comments. The workshop would be held at the Salt Lake Marriott Research Park Hotel at the University of Utah. The workshop would be free and open to everyone to stress their opinion on the issue of DU. The workshop would be held each day from 8:00 a.m. to 5:00 p.m. He said the NRC would be accepting comments on DU waste, and he said that it would be the appropriate forum to discuss any comments that members of the public may have on this topic. Chairman Jenkins said that after the Board finished hearing this action item that if there were other public comments about other things outside of this action item the Board would hear public comment as time allowed.

Chairman Jenkins said that the representatives from the NRC who would be making the presentation would be: (1) Larry Camper, (2) David Esh, and (3) Duncan White. Larry Camper, Director of Waste Management and Environmental Protection at the NRC would be the first speaker from his group.

Mr. Camper said the question on the disposal of DU in large quantities had fallen to his Division. Mr. Camper introduced his staff. Mr. Camper said that David Esh was the principal scientist and led the technical analysis for disposal of large quantities of DU. Mr. Camper said that Mr. Duncan White was from another Division within his office. He said Mr. White had a lot of experience with Agreement States and the Agreement State Program. Mr. Camper said that because Utah is an Agreement State, he felt "questions might come up on this front." Mr. Camper said he welcomed the opportunity to appear before the Board on the question of disposal for large quantities of DU from nuclear waste streams. He said that it is an issue that the NRC staff has wrestled with for two years. Mr. Camper said that this was not an easy issue, but rather a challenging and complicated issue.

Mr. Camper said that the direction that had been provided to the NRC staff was to proceed with a rulemaking that would require a "Site Specific Performance Assessment" to be conducted whenever large quantities of DU are disposed. He said that this requirement would also include specifying the technical parameters that would be evaluated as part of the Performance Assessment. The NRC would also provide guidance in implementing that requirement for the Agreement States—the Agreement

States could fully implement the requirement.

Mr. Camper said that as the NRC staff was responding to the requirements in the memorandum on this topic—the paper which referred to SECY-08-0147, Memorandum and Order entitled: “Response to NRC Commission Order CLI-05-20, 10/19/2005,” regarding DU. He said the NRC Commission had directed the staff to precede with a rulemaking to consider whether the quantities of DU, at issue in the waste stream from uranium enrichment facilities warrant amending the classification type in NRC’s regulation, Section 61.55 (a)(6) or Section 61.55 (a) waste classification tables. Mr. Camper said that when the NRC Commission asked his staff to work on the rulemaking, they asked them to modernize using the current ICRP (the Ionizing Counsel Radiation Protection) methodology. He said this would be the entire waste classification scheme, and the rulemaking would have special emphasis on DU disposal. Mr. Camper explained that the current rulemaking was Part I. It would conclude in 2011, and then Part II would commence.

Mr. Camper said that the Chairman of the Board had mentioned the workshop. He said that it would be the second workshop NRC would conduct on DU. Mr. Camper said it would be held for a couple of days beginning tomorrow, September 23-24 2009 at the University of Utah – Marriot Research Park. He said the NRC Commission had purposely decided to hold a hearing in Salt Lake City, Utah, because of the potential for DU to come to the Clive site. Mr. Camper said that they had conducted a workshop earlier in the month near Washington, D.C., and that they had a very good panel. He said that there was a good public representation at the board meeting today, and a good panel representing the NRC Commission. He said there was a lot of public in attendance and there would be a lot of comments and questions from the public. He said that NRC had already received a lot of good input on the subject of DU. Mr. Camper said that they hoped there would be such interest in NRC’s workshop as well.

Mr. Camper said he would now turn the time over to David Esh to respond to the questions the Board had for the NRC Commission. He said if the Board had additional questions, they could ask them after the presentation. (See Attached Copy)

Questions by the Board:

After the NRC’s presentation the Board members discussed the proposed moratorium and whether it was urgently necessary to issue a moratorium in order to protect the health and safety of the Citizens of Utah. The Board discussed the pros and cons of the matter, and the reason it was brought before the Board by HEAL-Utah. The Board also discussed the length of time it would take for the NRC to complete the rulemaking on

DU versus the time it would take to issue a moratorium. The board members agreed that there should be some type of rule put in place for the disposal of DU, but the board members differed in what the rule and conditions should be. Some members felt that there would be inherent problems in issuing a moratorium—they felt that it would take as long a time to implement a moratorium as it would for the NRC to finalize its rulemaking.

b. Consideration of Proposals for Policy & Rules on Disposal of Depleted Uranium (Board Action Item)

Peter Jenkins, Chairman, informed the Board that they had heard the U.S. Nuclear Regulatory Commission's (NRC) response to their questions. He said that he would like to hear from Laura Lockhart or Fred Nelson regarding what would happen if the Board voted for moratorium to protect the health and safety of the Citizens of Utah.

Laura Lockhart responded to questions and concerns the board members had. She said if *EnergySolutions* took the Board to court for an enforced "stay" from the Board's moratorium, they could still bring in the Depleted Uranium (DU).

After this discussion with the Attorney General's Office the Board referred to the letter sent from *EnergySolutions* dated September 21, 2009, addressed to Amanda Smith, DEQ Executive Director, and *EnergySolutions'* response to Board after the board meeting of July 14, 2009--in which *EnergySolutions* made commitments regarding the disposal of Depleted Uranium. The Board discussed the possibility of amending *EnergySolutions'* license to include the commitments *EnergySolutions* had made, which were: (1) the Disposal depth, (2) Performance Assessment, (3) Revision of the Disposal Embankment Design.

One of the board members said the Board owed it to the people of Utah that any future disposal of DU in Utah would be done in an environmentally safe way. The Board needed to consider the future generations of people in Utah. He said the Board could add other license conditions to *EnergySolutions'* license to retroactively agree to meet whatever Performance Assessment Criteria the NRC came up with in the final rulemaking. Some board members that felt that there could be potential problems with implementing a moratorium and a "stay" would be effective. They felt if the moratorium was challenged, they would have accomplished nothing. The Board discussed the possibility of a cooperative agreement with *EnergySolutions*. If the Board started the process to amend *EnergySolutions'* license, the Board would be in a better position to accomplish what they had intended to accomplish: to assure

that the disposal of the DU was accomplished with consideration for the environment and future generations of Utah citizens.

Peter Jenkins, Chairman, summarized to the Board what he had heard at the meeting. He said that they had heard a couple of things from the NRC that answered several questions that the Board had in past meetings. He asked the Board to recall that representatives from HEAL-Utah had proposed that the Board adopt a moratorium to ensure that the Citizens of Utah would be adequately protected. He said that the Board had heard from the NRC and from the attorneys at the Attorney General's Office. The NRC and attorneys had interpreted that the adoption of a Moratorium may cause some very significant issues. Chairman Jenkins said that if the Board cannot absolutely prohibit DU from coming into the State, if we can have some assurance that the State is protected against whatever the NRC ruling will affect in the future—if not pursuing this, "the rocky road, if you will," of a rulemaking or a moratorium. Chairman Jenkins called for a motion from the Board.

EDD JOHNSON MADE A MOTION THAT THE BOARD DENY THE PROPOSAL FOR A MORATORIUM FROM HEAL-UTAH

SECONDED BY COLLEEN JOHNSON

AMANDA SMITH MADE A MOTION TO AMEND THE ORIGINAL MOTION TO INCLUDE THAT THE BOARD PURSUE THE PERMIT REQUIREMENTS AND TO MAKE ENERYSOLUTIONS TAKE A RETROACTIVE LOOK AT ANY NEW WASTE THAT THEY MAY ACCEPT IN THE INTERIM—BETWEEN NOW AND THE FINAL U.S. NUCLEAR REGULATORY COMMISSION'S RULEMAKING

SECONDED BY COLLEEN JOHNSON

AMANDA SMITH MADE A MOTION THAT THE BOARD ADOPT THE LETTER FROM ENERYSOLUTIONS DATED SEPTEMBER 21, 2009, DIRECTED TO AMANDA SMITH, DEQ EXECUTIVE DIRECTOR, FROM THE PRESIDENT OF ENERYSOLUTIONS, VAL CHRISTIANSEN, AS A LICENSE CONDITION TO THEIR PERMIT

SECONDED BY DAVID A. TRIPP

Discussion followed by the Board on the amended motion. Frank D. DeRosso asked if the Board had any experience in trying to retroactively apply a license condition. Edd Johnson said that he felt that Ms. Smith had worded the amendment correctly by saying "that the Board pursue or

come to a desired endpoint through negotiation.” Dane Finerfrock said that he would assume, if *EnergySolutions* was not “living up to the requirements” of their license that the State or the Division could take a take action against them. Action could ultimately result in fines--the Division could pursue remediation and collect the amount of money that it would take to remediate now versus a later date. Chairman Jenkins said that perhaps an opinion from the Attorney General’s office would help. He asked Fred Nelson to respond to the questions.

Fred Nelson, Attorney, said that if *EnergySolutions* made the commitment to dispose of the waste in accordance with the future NRC rulemaking, and they disposed of DU in a way that became incompatible with the NRC’s future rule finding, the license condition would be enforceable. Mr. Nelson said regardless of the practicality and cost, the license condition would be very enforceable. The Executive Secretary could at each reviewable time look at what is happening at the facility; look at the financial requirements; look at the potential based on new information. At each five-year license renewal, they could have a complete renewal of the license and deal with the DU issues. Mr. Nelson said that the idea of a retroactive license-condition was not unusual, but rather typical. He said that once the new requirements would come into place that *EnergySolutions* would have to meet and this was the reason for the annual reviews and the 5-year license reviews.

The board members also discussed what they could include in the license condition. Dane Finerfrock, Executive Secretary, said that the Board could ask *EnergySolutions* to describe to them how they would dispose of DU, and they could also amend the financial assurance in the license condition. He said they could ask *EnergySolutions* to amend their Performance Assessment to match-up with the final NRC rules and guidance. Mr. Finerfrock said that *EnergySolutions* had agreed to “beef-up” the Clive site and to include all of these requirements and changes, when the NRC finally completes the rule. He said in addition, the State could compare the new license condition with NRC’s final rule, and *EnergySolutions* had agreed to support NRC’s rulemaking. Mr. Finerfrock said that *EnergySolutions* had agreed to do whatever was necessary and to abide by NRC’s new rule.

Joseph K. Miner said that he would like to add to the license condition that a retroactive remediation could be required--it would include DU removal from *EnergySolutions* and more suitable geologic disposal.

“FRIENDLY AMENDED MOTION” MADE BY JOSEPH K. MINER THAT THE RETROACTIVE REMEDIATION LANGUAGE INCLUDE THE REMOVAL AND DISPOSAL OF DEPLETED URANIUM IN A MORE APPROPRIATE GEOLOGICAL SITE—A

SITE THAT WOULD COMPLIMENT THE U.S. NUCLEAR REGULATORY COMMISSION'S FINAL RULEMAKING DECISION

MOTION MADE THAT THE BOARD ACCEPT THROUGH THE LICENSE PERMIT PROCESS THE LETTER OF SEPTEMBER 21, 2009 AS A LICENSE CONDITION; A RETROACTIVE REMEDIATION; AND TO ALSO INCLUDE THE LANGUAGE THAT THE RETROACTIVE REVIEW COULD INCLUDE REMOVAL AND "DU" DISPOSAL IN A MORE SUITABLE GEOLOGICAL SITE, IF IT IS DEEMED NECESSARY

CHAIRMAN JENKINS ASKED FOR A ROLL CALL ON THE MOTION AND FRIENDLY AMENDMENT:

Christian K. Gardner, No
Scott Bird, Yes
Patrick D. Cone, No
Frank D. DeRosso, Yes
John W. Thomson, No
Amanda Smith, Yes
Peter A. Jenkins, Abstained
Joseph K. Miner, Yes
Colleen Johnson, Yes
Douglas S. Kimball, Yes
Edd Johnson, Yes
David A. Tripp, Yes

Vote: 8 Yes'; and 3 No's; 1 Abstention

MOTION PASSED AND CARRIED

PUBLIC COMMENTS:

James O'Neal, Concerned Citizen from Provo, Utah:

Mr. O'Neal said that he wanted to make a general comment about "compatibility." He said that he did not think EnergySolutions' had "compatibility" with the people of Utah—it did not work. He said he did not think EnergySolutions wanted to give Utah money or give money to the Legislators. He said Utah needed a divorce, and a complete separation from EnergySolutions.

Christopher Thomas, HEAL-Utah:

Mr. Thomas said that he was disappointed with the Board's decision. He said that the Board had put a lot of time into the issue of a moratorium. He said that from

his perspective the citizens would be better represented by a Board willing to take on this kind of "bumpy rocky road:" and willing to take on the prospect of a legal fight with *EnergySolutions*. He said that he felt that eventually if it is shown through the "Performance Analysis" that *EnergySolutions*' site is not a compatible site for DU material, the issue would end up in court. Mr. Thomas said the license condition can be enforceable, but that he had a hard time imagining that a license action that would require a multi-million dollar investment from *EnergySolutions* that *EnergySolutions* would not take up that fight. He said that *EnergySolutions* had already used litigation successfully to try to uproot other of State Rights. He said that "using a license condition" had just kicked the fight down the road to a later date. Primarily this is why he was disappointed with what had happen today.

He said that he appreciated the amendment that the license condition would include DU removal and appropriate disposal; however, he would rather see it somewhere else. He said that he would have liked to have been able to review *EnergySolutions* language in the "letter," before it was voted on by the Board. In addition, he wished that HEAL-Utah had received an opportunity to look at *EnergySolutions*' "counter proposal," before it had been voted on. He would have appreciated the courtesy to actually see what was voted on. Mr. Thomas said that he thought he was not alone on this thought.

Polly Hough, Concerned Citizen of Utah:

Ms. Hough said that most of the public that were present were concerned with the continual effort by *EnergySolutions* to enlarge the Clive site and to bring in different kinds of waste. She said that the public had tried to stand up to the infernal of hot waste--the public had tried to stand-up to various other kinds of waste reclassifications, and other of efforts. The public is concerned. She said they knew that *EnergySolutions* would continue to fight to have as much business as they could at the site in the desert. This was their business and they had a right to do business. Ms. Hough said that *EnergySolutions* had been given a permit to dispose of low-level radioactive waste in the State of Utah, but the fact that they had been able to bring in the DU—quiet, over a long period of time, before it was announced to the public.

She said that when the public began to protest that *EnergySolutions* began to say "well, we've already had it here." Ms. Hough said that it was not clear to most of the citizens that a variance had already been given to have the DU placed at the Clive site. Ms. Hough said that the public was very glad that the Board had stood up to high-level radioactive waste, but that there was a concern from the public that the Board had placed "the cart before the horse." She asked, how bad the sanctions would have been, if the public had requested sanctions from the Department of Energy (DOE)--because she supposed this was where the waste issue would eventually have ended up. She said that she wished that Utah would have been able to wait until the "Performance Appraisal" had been completed. Ms. Hough said that this was the logical way to do these things, and that she now

appreciated that they were all in a "big bind." She understood this now--that they had the citizens of Utah in a "big bind," and that she hoped everyone would be able to dig their way out of it eventually.

Helene Cumo, Concerned Citizen of Utah:

Helene Cumo said that she had been sitting in the audience for a couple of hours. She did not understand what part of what the U.S. Nuclear Regulatory Commission had said that went over the board members' heads. Ms. Cumo said that NRC never said there was no risk. She said their language was "It's not ideal. It may be unsuitable." She said what had not been done in the past would not be done today. Ms. Cumo said that the NRC was saying there was risk. They do not know what it is. Yet, the Board is saying: "O.K., well if they come-up with something well then we will remove it." She said well what even is the risk of removal in the amendment? She said that the Board had said that they would have them remove it, and put it in a geologically safer spot. She asked: had there been any analysis done on the risk of removal? She said that the public would have liked to ask the Down-Winders.

Ms. Cumo said as a Board, the board members had been sitting at the meeting for three to four hours. How did they could come-up with this—to include an amendment without really thinking this whole process through? Without thinking about the citizens of Utah, and the risk they were taking. She said that the scariest part is sufficient site analysis—does this mean analysis would be completed every 500 years. This is five generations. Ms. Cumo asked what would be happening after that? Yet, board members could not wait, and try to make it a little bit harder for EnergySolutions? Instead, all the Board would do was roll over and say: "O.K. do what you want, and if it is not right, we can fix it later." She asked the Board how they knew that it could be fixed, and when the time came, how would they would know it was fixed?

Ms. Cumo said that she felt that there had been no backbone presented from the Board at all. She said that she felt they were opening "Pandora's Box," and that this was a very scary thought--because once it had been accepted, and everyone knows that it already had been accepted. The State of Utah was saying, "Yeah, bring it on, and bring it on, more, more." She asked: when does it stop, and who had any backbone to really say: "This has not been thought through." Ms. Cumo said that they all knew that this needed to happen.

Claire Geddes, Concerned Citizen of Utah:

Claire Geddes said that she had worked a long time with the legislators, and knew the annex of "who was Envirocare." She said that she very distinctly remembered one audit where it talked about giving "preauthorization to a situation" where they had not figured out how the "preauthorized situation" should be handled. She said she would get this information, and bring it to the Board at their next meeting (which by then would be way too late to present and consider this information). Ms. Geddes said that the legislative auditors did not think at the time that it was a

very good idea, and she said that most of the people in the State of Utah would probably think this was not a good idea.

She said that she had lost her father—he used to haul uranium ore from one of the mines in Marisol, in Utah. He died of lung cancer at the age of 46. Ms. Geddes said that at that time uranium was considered safe.

Ms. Geddes said there were many people that believed DU waste should be in deep, geological repositories. She said that she thought it was not safe to go into shallow burial, and frankly, what she had heard from the NRC was astounding. She could not believe the Board would even vote on it, after their presentation. Ms. Geddes told the Board that they had the entire welfare of the State of Utah in their hands, and they had decided to do something and they would have no idea what the ramifications would be--because it had not even had a thorough examination. She found this astounding. She felt that the Board was going to find out that there were a lot of people in the State of Utah that disagreed with the Board 100 percent.

Ms. Geddes said that she appreciated the three members of the Board who were thoughtful enough to think about the ramifications upon generations, and generations and generations. She said that this was not an issue that everybody believed that it was safe to bring DU waste into the State of Utah. Ms. Geddes asked why it was not classified a different thing? She said that she believed it was, because it could not have come to Utah if it was not Class A. She said it was just not classified--making it handy for disposal. She said that the one that was really "driving the ball for DU" was *EnergySolutions*. She said the State of Utah was not regulating *EnergySolutions*, but rather that they were running the State of Utah. She said that this was the way it had been going-on for years and years, and years.

Ms. Geddes said that *EnergySolutions* was going to hire somebody that could tell them what would be safe to do. Next, *EnergySolutions* will bring DU to the State of Utah. Ms. Geddes said that most people were not comfortable with this type of analysis, and that the people of Utah would like an independent analysis completed on the facility.

She said that after spending several years looking at the Division of Radiation Control Board and going over what had happened up on the hill/capitol with the Legislators--she had watched *EnergySolutions* have their way--basically at every turn. She said that she thought this was the saddest day she had ever seen, because the Board had just agreed to take a whole lot hotter stuff than the State of Utah had ever had. Ms. Geddes said that she hoped that the Board understood what this puts on the board members--a handful of people get to do this to us. She said that she knew there was one NRC staff that had mentioned that there had been a huge disagreement, and this was not something that everyone felt was safe to do. She said that she appreciated the Board's time.

Peter A. Jenkins, Chairman, said that he appreciated everybody's comments and the public's participation through the lengthy process--he mentioned that the Board's deliberation had been going on since May 2009. Chairman Jenkins said he could honestly say the Board had been given the issue thoughtful consideration.

VI. URANIUM MILL LICENSING AND INSPECTION
No Items

VII. OTHER DIVISION ISSUES (Board Information Item)

a. **Division Activities Report**

Peter A. Jenkins, Chairman, asked the Board if they had any questions on the Division Activities Report. The board members had none.

VIII. PUBLIC COMMENT
Please refer to Item V. a.

IX. The Next Scheduled Board Meeting: October 13, 2009 (Tuesday), DEQ Bldg #2, Conference Room 101, 168 North 1950 West, Salt Lake City, Utah 3:00 – 5:00 P.M. THE BOARD MEETING ADJOURNED AT 6:12 P.M.

Exhibit B

9/21/09 Energy *Solutions* Letter



FILE
CORR LIBRARY

September 21, 2009

CD09-0241

Ms. Amanda Smith
Executive Director
Utah Department of Environmental Quality
P.O. Box 144850
Salt Lake City, UT 84114-4850

Re: Radioactive Material License Number UT 2300249 – Commitments Relating to Depleted Uranium Disposal

Dear Ms. Smith:

This letter summarizes commitments EnergySolutions made on July 14, 2009 to the Utah Radiation Control Board regarding disposal of depleted uranium. At that meeting, EnergySolutions presented its understanding of the current and likely future direction of the Nuclear Regulatory Commission (NRC) rulemaking on this subject and outlined actions the company has voluntarily undertaken to address concerns that have been raised regarding the disposal of depleted uranium. These actions take into account the findings of the NRC as described in the NRC's paper, *Response to Commission Order CLI-05-20 Regarding Depleted Uranium*, October 7, 2008, SECY-08-0147, and address the specific focus of the ongoing rulemaking that will establish requirements for site-specific performance assessments.

Consistent with commitments made to the Board, EnergySolutions is engaged in the following specific actions:

1. Disposal depth: The generic NRC evaluations of depleted uranium disposal suggest a disposal depth of at least 10 feet. Therefore, EnergySolutions will dispose of wastes with depleted uranium concentrations greater than 5 percent (by weight) a minimum of 10 feet below the top of cover. This commitment has been captured in License amendment 5 at condition 35.
2. Performance assessment: EnergySolutions has contracted with Neptune and Company, the industry recognized experts in the field of performance assessments, to provide an updated performance assessment for depleted uranium disposal. It might be helpful for you to know that Neptune and Company was selected by the DOE to complete the performance assessment for low-level radioactive waste disposal at the U.S. Department of Energy's Nevada Test Site. We anticipate that the performance assessment will be provided to your staff by December 2010.

This type of performance assessment is the subject of NRC's current rulemaking and the topic of workshops on depleted uranium disposal. While final criteria for the performance assessment have not yet been codified, we believe there is sufficient information in

existing NRC guidance to get started. Furthermore, our efforts are guided by the results of the first workshop held by NRC in Bethesda, Maryland on September 2-3, 2009. By initiating work on the performance assessment before NRC rulemaking is complete, the review cycle will be accelerated. Changes to input parameters based on Final NRC rules or guidance can be easily incorporated into the dynamic performance assessment.

3. Revised disposal embankment design: Results of the performance assessment will be used to implement any changes to disposal operations and cover design necessary to ensure compliance with the requirements of 10 CFR Part 61 or Utah Administrative Code R313. For example, we anticipate that depleted uranium will require greater depth of cover than other Class A low-level radioactive wastes and therefore adjusted our disposal depth accordingly. This potential re-design will consider wastes that have been disposed of previously, including depleted uranium received from the U.S. Department of Energy's Savannah River Site.

If, upon completion of the performance assessment, a revised cover design is required, then EnergySolutions will provide your staff with a revised design and construct the embankments accordingly. Similarly, if other barriers or disposal methods unique to depleted uranium are indicated, these will of course be adopted.

As mentioned above, our commitment described in item 1 is already captured in the License and we are already performing consistent with the commitments described above. If the Division of Radiation Control would like to make additional changes to our License to reflect the commitments described in items 2 and 3 we will certainly be accommodating.

Please feel free to contact me or Dan Shrum at your convenience if you have any questions regarding the foregoing. You can reach me directly at 801-580-5443. You can reach Dan at 801-649-2109.

Sincerely,



Val J. Christensen
President
EnergySolutions

cc Dane Finerfrock

Exhibit C

**September 2009 Condition No. 35
Proposed by the Executive Secretary**

Condition 35. Depleted Uranium:

- A. Background: The Nuclear Regulatory Commission (NRC) has acknowledged some inadequacies in its past analyses and possibly its current regulatory structure with respect to disposal of substantial quantities of depleted uranium (DU). As a result, it has started a rulemaking process to determine the conditions under which DU and other unique wastes may be safely disposed of in near surface facilities. NRC has stated that new regulatory standards and guidance will be the likely result from that rulemaking process, and that new performance assessments will likely also be required. Rulemaking by the Division of Radiation Control (DRC) would also likely be follow. EnergySolutions has indicated to the Division that it would prefer not to wait until the completion of the NRC's and DRC's rulemaking processes or until completion of the resulting performance analysis that will likely be required before it begins to dispose of depleted uranium at the Clive facility. The additional license conditions in this Condition 35 are therefore required.
- B. Burial Depth: The Licensee shall place all wastes with DU concentrations greater than 5 percent (by weight) a minimum of 10 feet below the top of the cover.
- C. Performance assessment: A performance assessment, in general conformance with the approach used by the Nuclear Regulatory Commission (NRC) in SECY-08-0147, shall be submitted for Executive Secretary review and approval no later than December 31, 2010. The performance assessment shall be revised as needed to reflect ongoing guidance and rulemaking from NRC. For purposes of this performance assessment, the compliance period will be a minimum of 10,000 years. Additional simulations will be performed for a minimum of a 1,000,000-year time frame for qualitative analysis.
- D. Revised disposal embankment design: If the performance assessment specified in paragraph 35C indicates that changes to disposal operations and cover design are necessary to ensure compliance with the requirements of 10 CFR Part 61 or Utah Administrative Code R313, EnergySolutions will provide a revised design that does meet those requirements, for all wastes that have been and are reasonably anticipated to be disposed of at the facility, within 180 days of Executive Secretary approval of the performance assessment.
- E. Remediation: If, following the completion of NRC's and DRC's regulatory processes described in paragraph 35A, the disposal of DU as performed after the date of this license condition would not have met the requirements of those new regulatory and performance standards, the facility will undertake remediation to ensure that those new regulatory and performance standards are met, or, if that is not possible, shall remove the DU and transport it off-site to licensed facility. Before accepting substantial quantities of DU for disposal after the effective date of this license condition, EnergySolutions shall provide evidence that it is feasible to meet this condition 35.E. Compliance with this provision is required even if EnergySolutions has complied with paragraph 35D.

F. Surety: The Licensee shall fund the surety for the remediation specified in License Condition 35 E. Within 30-days of the effective date of this license condition, the licensee shall submit for Executive Secretary review and approval, the surety cost estimates for remediation of existing Savannah River DU waste disposal and planned, similar, large quantity DU waste disposal.

Exhibit D

**October Proposed License Condition
No. 35 Offered by Heal Utah**

1 **Condition 35. Depleted Uranium:**

2 A. Background: The Nuclear Regulatory Commission (NRC) has acknowledged some
3 inadequacies in its past analyses and possibly its current regulatory structure with
4 respect to disposal of substantial quantities of depleted uranium (DU). As a result, it
5 has started a rulemaking process to determine the conditions under which DU and
6 other unique wastes may be safely disposed of in near surface facilities. NRC has
7 stated that new regulatory standards and guidance will be the likely result from that
8 rulemaking process, and that new performance assessments will likely also be
9 required. Rulemaking by the Division of Radiation Control (DRC) would also likely be
10 follow. In the interim, Utah will adopt the regulatory approach of Texas, to require a
11 performance assessment to the "period where peak dose occurs" before allowing
12 additional disposal of substantial quantities of DU. Energy Solutions has indicated to
13 ~~the Division that it would prefer not to wait until the completion of the NRC's and~~
14 ~~DRC's rulemaking processes or until completion of the resulting performance~~
15 ~~analysis that will likely be required before it begins to dispose of depleted uranium at~~
16 ~~the Clive facility.~~ The additional license conditions in this Condition 35 are therefore
17 required.

18 ~~B. Burial Depth: The Licensee shall place all wastes with DU concentrations greater~~
19 ~~than 5 percent (by weight) a minimum of 10 feet below the top of the cover.~~

20 ~~C. Performance assessment: A performance assessment, in general conformance~~
21 ~~with the approach used by the Nuclear Regulatory Commission (NRC) in SECY08-~~
22 ~~0147, shall be submitted for Executive Secretary review and approval no later than~~
23 ~~December 31, 2010 before any further disposal of significant quantities of depleted~~
24 ~~uranium. The performance assessment shall be revised as needed to reflect ongoing~~
25 ~~guidance and rulemaking from NRC. For purposes of this performance assessment,~~
26 ~~the compliance period will be a minimum of 10,000 years or the period where peak~~
27 ~~dose (or activity) occurs, whichever is longer. Approval of this performance~~

28 assessment by the Executive Secretary will take place through a new license
29 amendment and shall be subject to public comment and appeal before the Radiation
30 Control Board. Additional simulations will be performed for a minimum of a
31 1,000,000-year time frame for qualitative analysis.

32 ~~D. Revised disposal embankment design: If the performance assessment specified in~~
33 ~~paragraph 35C indicates that changes to disposal operations and cover design are~~
34 ~~necessary to ensure compliance with the requirements of 10 CFR Part 61 or Utah~~
35 ~~Administrative Code R313, EnergySolutions will provide a revised design that does~~
36 ~~meet those requirements, for all wastes that have been and are reasonably~~
37 ~~anticipated to be disposed of at the facility, within 180 days of Executive Secretary~~
38 ~~approval of the performance assessment.~~

39 ~~E. Remediation: If, following the completion of NRC's and DRC's regulatory processes~~
40 ~~described in paragraph 35A, the disposal of DU as performed after the date of this~~
41 ~~license condition would not have met the requirements of those new regulatory and~~
42 ~~performance standards, the facility will undertake remediation to ensure that those~~
43 ~~new regulatory and performance standards are met, or, if that is not possible, shall~~
44 ~~remove the DU and transport it off-site to licensed facility. Before accepting~~
45 ~~substantial quantities of DU for disposal after the effective date of this license~~
46 ~~condition, EnergySolutions shall provide evidence that it is feasible to meet this~~
47 ~~condition 35.E. Compliance with this provision is required even if EnergySolutions~~
48 ~~has complied with paragraph 35D.~~

49 ~~F. Surety: The Licensee shall fund the surety for the remediation, in License Condition~~
50 ~~35 E. Within 30 days of the effective date of this license condition, the licensee shall~~
51 ~~submit for Executive Secretary review and approval, the surety cost estimates for~~
52 ~~remediation of existing Savannah River DU waste disposal and planned, similar, large~~
53 ~~quantity DU waste disposal.~~

Condition 35. Depleted Uranium:

A. Background: The Nuclear Regulatory Commission (NRC) has acknowledged some inadequacies in its past analyses and possibly its current regulatory structure with respect to disposal of substantial quantities of depleted uranium (DU). As a result, it has started a rulemaking process to determine the conditions under which DU and other unique wastes may be safely disposed of in near surface facilities. NRC has stated that new regulatory standards and guidance will be the likely result from that rulemaking process, and that new performance assessments will likely also be required. Rulemaking by the Division of Radiation Control (DRC) would also likely follow. In the interim, Utah will adopt the regulatory approach of Texas, to require a performance assessment to the "period where peak dose occurs" before allowing additional disposal of substantial quantities of DU. The additional license conditions in this Condition 35 are therefore required.

B. Performance assessment: A performance assessment shall be submitted for Executive Secretary review and approval before any further disposal of significant quantities of depleted uranium. For purposes of this performance assessment, the compliance period will be a minimum of 10,000 years or the period where peak dose (or activity) occurs, whichever is longer. Approval of this performance assessment by the Executive Secretary will take place through a new license amendment and shall be subject to public comment and appeal before the Radiation Control Board.

Exhibit E

10/21/09 Notice of Agency Action

Before the Utah Radiation Control Board

In re: EnergySolutions, LLC
(EnergySolutions)

Address: 423 West 300 South, Suite 200
Salt Lake City, UT 84101

License No. UT 2300249

**NOTICE OF AGENCY ACTION
TO CONSIDER PROPOSED
LICENSE CONDITION NO. 35**

The Utah Radiation Control Board is initiating a proceeding in order to determine whether to adopt the license condition included as Attachment A to this notice. This proceeding will be conducted using formal adjudicative proceedings.

EnergySolutions must file a written response to this Notice of Agency Action within 30 days of this date, as required by Utah Code Ann. § 63G-4-201(2)(vi). Please be aware that the Board is simultaneously seeking public comment on this matter. The deadline for public comment will end 30 days after public notice.

You will be notified before any hearing set for this matter.

The Board is considering adopting this license condition pursuant to its authority under Utah Code Ann. § 19-3-103.5. See also R313-19-61.

The question to be considered in the course of this proceeding is whether to adopt the license condition included as Attachment A to this notice.

Please address any correspondence in this matter to the Board's Executive Secretary and the Board's attorney:

Dane Finerfrock, Executive Secretary
Utah Radiation Control Board
Division of Radiation Control

(Hand delivery)
Building No. 2, Room 212
168 North 1950 West
Box 144850
Salt Lake City UT 84116-3085

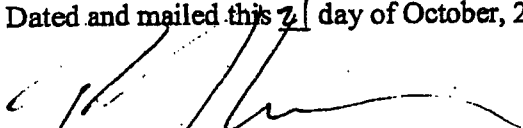
(U.S. Mail)
Box 144850
Salt Lake City UT 84114-4850

Laura Lockhart
Utah Attorney General's Office

(Hand delivery)
160 East 300 South, 5th Floor
Salt Lake City UT 84111

(U.S. Mail address)
PO Box 140873
Salt Lake City UT 84114-0873

Dated and mailed this 7 day of October, 2009.



Peter A. Jenkins,
Chair
Radiation Control Board

ATTACHMENT A

Condition 35. Depleted Uranium:

- A. Background: The Nuclear Regulatory Commission (NRC) has acknowledged some inadequacies in its past analyses and possibly its current regulatory structure with respect to disposal of substantial quantities of depleted uranium (DU). As a result, it has started a rulemaking process to determine the conditions under which DU and other unique wastes may be safely disposed of in near surface facilities. NRC has stated that new regulatory standards and guidance will be the likely result from that rulemaking process, and that new performance assessments will likely also be required. Rulemaking by the Division of Radiation Control (DRC) would also likely be follow. EnergySolutions has indicated to the Division that it would prefer not to wait until the completion of the NRC's and DRC's rulemaking processes or until completion of the resulting performance analysis that will likely be required before it begins to dispose of depleted uranium at the Clive facility. The additional license conditions in this Condition 35 are therefore required.
- B. Burial Depth: The Licensee shall place all wastes with DU concentrations greater than 5 percent (by weight) a minimum of 10 feet below the top of the cover.
- C. Performance assessment: A performance assessment, in general conformance with the approach used by the Nuclear Regulatory Commission (NRC) in SECY-08-0147, shall be submitted for Executive Secretary review and be approved prior to receipt of significant quantities (more than 1 metric ton) of DU waste. The performance assessment shall be revised as needed to reflect ongoing guidance and rulemaking from NRC. For purposes of this performance assessment, the compliance period will be a minimum of 10,000 years. Additional simulations will be performed for a minimum of a 1,000,000-year time frame for qualitative analysis.
- D. Revised disposal embankment design: If the performance assessment specified in paragraph 35C indicates that changes to disposal operations and cover design are necessary to ensure compliance with the requirements of 10 CFR Part 61 or Utah Administrative Code R313, EnergySolutions will provide a revised design that does meet those requirements, for all wastes that have been and are reasonably anticipated to be disposed of at the facility, within 180 days of Executive Secretary approval of the performance assessment.
- E. Remediation: If, following the completion of NRC's and DRC's regulatory processes described in paragraph 35A, the disposal of DU as performed after the date of this license condition would not have met the requirements of those new regulatory and performance standards, the facility will undertake remediation to ensure that those new regulatory and performance standards are met, or, if that is

not possible, shall remove the DU and transport it off-site to licensed facility. Before accepting significant quantities of DU for disposal after the effective date of this license condition, EnergySolutions shall provide evidence that it is feasible to meet this condition. Compliance with this provision is required even if EnergySolutions has complied with paragraph 35D.

- F. Surety: The Licensee shall fund the surety for the remediation specified in License Condition 35 E. Within 30-days of the effective date of this license condition, the licensee shall submit for Executive Secretary review and approval, the surety cost estimates for remediation of existing Savannah River DU waste disposal and planned, similar, large quantity DU waste disposal.

PUBLIC NOTICE

Notice of Agency Action

The Utah Department of Environmental Quality, Division of Radiation Control (DRC) on behalf of the Utah Radiation Control Board, is requesting public comment regarding an initial decision by the Utah Radiation Control Board to amend the EnergySolutions, LLC (Licensee) Low-Level Radioactive Waste Disposal License (RML UT2300249).

Licensee Information:

NAME: EnergySolutions, LLC.
MAILING ADDRESS: 423 West 300 South, Suite 200
Salt Lake City, UT 84101
TELEPHONE NUMBER: (801) 649-2000
FACILITY LOCATION: South Clive, Tooele County, Utah

The Notice of Agency Action is proposed to:

- 1) Impose certain requirements in License Condition No.35, regarding the receipt and disposal of Depleted Uranium (DU).

The Notice of Agency Action to Consider Proposed License Condition No. 35 will be available for review and/or copying between 7:00 a.m. and 6:00 p.m., Monday through Thursday, at the address listed below. In addition, the Notice of Agency Action is available on the Division website at: <http://www.radiationcontrol.utah.gov/>.

Utah Department of Environmental Quality
Division of Radiation Control
Room 212, Airport East Business Building (Bldg #2)
168 North 1950 West.
Salt Lake City, Utah 84114-4850

A thirty-day public comment period will commence on October 26, 2009 by publication of this notice in the Salt Lake Tribune, the Deseret News, and the Tooele County Transcript-Bulletin.

Written comments will be accepted until the close of business on November 25, 2009. Written comments should be sent to the address listed above. All comments received within the 30-day comment period will be considered when making a final decision regarding this proposed Agency Action.

Two public meetings will be held, one Wednesday, November 18, 2009, 6 PM, at the Department of Environmental Quality, Room 101, 168 North 1950 West, Salt Lake City, Utah and the other one Thursday, November 19, 2009 6 PM, at the Tooele County Court House, 47 South Main, Tooele, Utah. Additional information regarding the proposed Agency Action may be obtained by calling Dane Finerfrock at (801) 536-4250, or by writing the DRC at the aforementioned address. In compliance with the Americans with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Brooke Baker, Office of Human Resources at 536-4412 (TDD 536-4414) at least 10 working days prior to close of the comment period.

Exhibit F

6/2/09 Legal Memorandum from
Office of the Attorney General

**OFFICE OF THE ATTORNEY GENERAL, STATE OF UTAH
MEMORANDUM**

TO: Radiation Control Board

FROM: Laura Lockhart
Assistant Attorney General

DATE: June 2, 2009

RE: Options for moratorium for depleted uranium

You requested that I report to you at the June 9 Board meeting about options for imposing a moratorium on land disposal of depleted uranium in Utah. I have prepared the attached proposals for your consideration.

The rule described in Part 1 of the attached handout would directly impose a moratorium. The rule described in Part 2 approaches the matter instead through the land ownership and control requirement in DRC's rules at R313-25-9. It will be helpful for Board members to know, before reviewing this option, that a previous board granted EnergySolutions an exemption from the land ownership and control requirements.

If the Board determines that it is interested in pursuing this matter, I would recommend that it approve both proposals for rulemaking so that it can receive comments on both before it makes its final determination. I would further recommend that the proposals be made separately to avoid any unnecessary delay in the rules' final implementation.

If the Board would prefer to recommend legislative action, either of these approaches could be modified for that purpose.

I will be prepared to speak to both of these options on June 9.

The NRC staff's report about "whether the quantities of depleted uranium (DU) at issue in the waste stream from uranium enrichment facilities warrant amending section 61.55(a)(6) or the section 61.55(a) waste classification tables" is the document that I found to be most directly pertinent to this matter. That document may be found at:

<http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2008/secy2008-0147/2008-0147scy.pdf>

The Nuclear Regulatory Commission selected the Staff's second option from that paper in a later decision. See http://hps.org/govtrelations/documents/nrc_srm_secy-08-0147.pdf.

DEPLETED URANIUM - OPTIONS FOR REGULATION

1. PROPOSED RULE IMPOSING MORATORIUM

a. Possible language:

R313-71-1. Definitions.

For purposes of this Section R313-71:

“Incidental depleted uranium” means depleted uranium in concentrations of less than [#]% contained in other waste streams.

R313-71-2. Moratorium on land disposal of depleted uranium

- (a) No facility licensed for land disposal of radioactive waste may dispose of depleted uranium.
- (b) This prohibition does not apply to:
 - (i) small amounts of incidental depleted uranium contained within other waste streams, which collectively total less than [#] metric tons annually;
 - (ii) waste received by a facility for disposal before the effective date of this Section R313-72, provided the contract to dispose of the waste is dated before [DATE].
- (c) This prohibition shall expire on the earlier of the following dates:
 - (i) 180 days after the effective date of the rule promulgated by the federal Nuclear Regulatory Commission regarding disposal of depleted uranium, as anticipated in the March 18, 2009 instruction from the Commission to NRC staff entitled “Staff Requirements – SECY-08-0147 – Response to Commission Order CLI-05-20 Regarding Depleted Uranium;” or
 - (ii) January 1, 2013.

Other exemptions to consider:

- Waste streams the land disposal facility has a contract to dispose of if the contract is dated [before May 13, 2009] [before the effective date of this Section R313-71].

b. Authority for rule:

Utah Code Ann. § 19-3-104. Registration and licensing of radiation sources by department - Assessment of fees - Rulemaking authority and procedure - Siting criteria.

(4) The board may make rules:

(a) necessary for controlling exposure to sources of radiation that constitute a significant health hazard

c. Applicability of Utah Code Ann. §§ 19-3-104(8) and (9).

Compliance with Utah Code Ann. §§ 19-3-104(8) and (9) would be required. Those provisions limit the authority of the Board to make rules:

(8) (a) *Except as provided in Subsection (9), the board may not adopt rules, for the purpose of the state assuming responsibilities from the United States Nuclear Regulatory Commission with respect to regulation of sources of ionizing radiation, that are more stringent than the corresponding federal regulations which address the same circumstances.*

(b) *In adopting those rules, the board may incorporate corresponding federal regulations by reference.*

(9) (a) *The board may adopt rules more stringent than corresponding federal regulations for the purpose described in Subsection (8) only if it makes a written finding after public comment and hearing and based on evidence in the record that corresponding federal regulations are not adequate to protect public health and the environment of the state.*

d. Questions the Board should consider as it determines whether to adopt this rule:

1. What is the evidence that corresponding federal regulations either are or are not adequate to protect public health and the environment?
2. If there is evidence that federal regulations are not adequate to protect public health and the environment, do we know the quantities of depleted uranium that may be land disposed without raising those concerns?
3. In the absence of a moratorium, what quantities of depleted uranium would be disposed of before the NRC completes its rulemaking process and we are able to complete ours?

2. EFFECTIVENESS OF WAIVER RULE

a. Background:

- (i) DRC rules require that a land disposal facility have evidence that a federal or state agency either own the property or will own it after closure.

R313-25-9. Institutional Information.

The institutional information submitted by the applicant shall include:

- (1) *A certification by the federal or state agency which owns the disposal site that the agency is prepared to accept transfer of the license when the provisions of R313-25-16 are met and will assume responsibility for institutional control after site closure and for post-closure observation and maintenance.*
- (2) *Evidence, if the proposed disposal site is on land not owned by the federal or a state government, that arrangements have been made for assumption of ownership in fee by the federal or a state agency.*

- (ii) EnergySolutions, through its predecessor Envirocare, received waivers from the land ownership/control requirement based on the other controls that were provided. The waivers were granted under this section of the General Provisions:

R313-12-55. Exemptions.

- (1) *The Board may, upon application or upon its own initiative, grant exemptions or exceptions from the requirements of these rules as it determines are authorized by law and will not result in undue hazard to public health and safety or the environment.*

b. Possible language:

R313-71-3. Limitation on Exemptions from the Requirements of R313-25-9.

- (1) No facility licensed for land disposal of radioactive waste may dispose of depleted uranium unless it demonstrated compliance with the requirements of R313-25-9 during the licensing process.
- (2) The requirements of R313-71-3(1) may not be waived under the authority of R313-12-55, except by a specific order from this Board that cites this Section R313-71-3.
- (3) A facility that has not been required to meet the requirements of R313-25-9 because it has received an exemption from the requirements of that provision has not demonstrated compliance with the requirements of that provision for purposes of paragraph R313-71-3(1).
- (4) The prohibition specified in R313-71-3(1) does not apply to:
 - (i) small amounts of incidental depleted uranium which collectively total less than [#] metric tons annually; or
 - (ii) waste received by a facility for disposal before the effective date of this Section R313-71, provided the contract to dispose of the waste is dated before [May 13, 2009].

Other exemptions to consider:

- waste streams the land disposal facility has a contract to dispose of if the contract is dated [before May 13, 2009] [before the effective date of this Section R313-71].

c. Authority for rule:

See authority for rulemaking cited under Part 1.b above.

d. Applicability of Utah Code Ann. §§ 19-3-104(8) and (9).

Land ownership/control requirements are specified in federal rules (10 C.F.R. § 61.14). For that reason, no analysis under these provisions would be required.

e. Questions the Board should consider as it determines whether to adopt this rule:

1. What is the basis for having different approaches to exemption from the land ownership/control requirements of R315-25-9 for different wastes?
2. What is the basis for having the rule apply immediately?