Hyperion Power
New Clear Energy

www.HyperionPowerGeneration.com

12 August 2010

Eagle Rock Enrichment Facility EIS Comments
Idaho Falls, Idaho

Hyperion Power is commercializing a 25MW liquid metal mini nuclear power reactor. We expect early/lead launch plant installations to begin construction in early 2014 and have already taken pre-orders for over 100 units across the globe.

We believe the Eagle Rock facility is an important and necessary addition to the fuel cycle in America and will depend on the Eagle Rock facility for fuel enrichment.

After reviewing the Draft EIS scoping on community impact we concur that the impacts were scored correctly and reflect a conservative and measured approach to the study.

We commend the process completed thus far and appreciate that the NRC's only role is that of protecting public health and safety.

Hyperion Power, as a member of the Idaho community, and future neighbors of the Eagle Rock Enrichment Facility, thank you for your dedication.

Sincere regards,

John R (Grizz) Deal
Chief Executive Officer

Corporate Office • Suite 105, 2399 Blake Street • Denver, Colorado 80205 • Ph: +1 505-216-9130
Laboratory • Suite 508, 369 Montezuma Avenue • Santa Fe, New Mexico 87501 • Ph: +1 505-216-9130
Public Policy • Suite 200, 25140 Fortitude Terrace • Chantilly, Virginia 20152 • Ph: +1 703-722-2821

JEFF THOMPSON
DISTRICT 33-A
BONNEVILLE COUNTY

HOME ADDRESS
1739 PEGGY'S LANE
IDAHO FALLS, IDAHO 83402
HOME: (208) 524-7367
CELL: (208) 681-4310
EMAIL: jthompson@house.idaho.gov

House of Representatives
State of Idaho

Eagle Rock Enrichment Facility
August 12, 2010
Idaho Falls, ID

Good evening, my name is Jeff Thompson, and I am a resident of Idaho Falls as well as a member of the Idaho House of Representatives. As your Representative, I serve on the Business, Education, and Health and Welfare Committees. It is my goal to assure the needs of our community as well as our state are being met.

Thank you all for attending tonight and for listening to everyone's concerns and questions. It is obvious that you have taken time to address many of our concerns in the Safety Analysis Report, and we appreciate the commitment to protecting the public's health and safety.

As an Eastern Idahoan and a Representative, I am excited to hear that we are looking for sustainable energy solutions for our future such as those provided by AREVA. The demand for electricity is becoming greater and with this demand we are beginning to see prices soar. Nuclear energy offers a solution to our need for reliable energy sources now and in the future.

It is estimated that the local region will see more than $5 billion in economic impact and 5,000 in direct and indirect jobs will be created throughout the United States from this contract. Additionally the Eagle Rock plant will enrich uranium for use as fuel for nuclear reactors, which today account for 20% of the US electricity.

I am pleased to give my support to AREVA and agree with the NRC recommendation to issue a license to AREVA to construct and operate their Eagle Rock Enrichment Facility.

Thank you for the opportunity to speak with you tonight.

Jeff Thompson

Representative Jeff Thompson

Ida Hardcastle
Idaho Falls City Councilwomen

2643 Ridgecrest Dr. Idaho Falls, Id. 83404
Phone (208) 529-5204
E-mail hardcast@srv.net

August 12, 2010

To: NRC Committee

My name is Ida Hardcastle, I currently serve as the President of the Idaho Falls City Council, a position I have held for 17 years. My husband and I came to Idaho Falls 45 years ago for him to accept a position with the nuclear industry as an engineer. Obviously we are very much in favor of this project. In addition we appreciate the efforts of the NRC Staff as you have worked through this licensing applications and the detail to safety for the Eagle Rock Enrichment Facility. Obviously the Draft EIS and the Safety Analysis Report have taken a large amount of time and it appears that you have addressed appropriately the potential impacts identified at the June EIS scoping meeting in Idaho Falls. We thank you for your thoroughness.

I spend a large amount of time in the city among the residents and it is exciting to feel the enthusiasm most have for this project coming to Idaho Falls. Of course the main interest is the economic impact it will have on the area, in other words - jobs. Also the community supports the fact that there will be a very small environmental impact from this facility. We thank the NRC again for their efforts in this particular concern. We have a top notch workforce here which was recognized by AREVA in the beginning. The community as a whole supports energy being produced by nuclear power. We simply have to address our independence on foreign oil.

I appreciate being able to voice the support of myself and the many residents, who I believe are the most pro-nuclear community in the country, that AREVA be issued a license to begin construction and move forward with this very important facility to this area as well as the entire nation.

With best regards,

Ida Hardcastle

Good evening, my name is Steve Herring. I am a nuclear engineer and have lived here in Idaho since earning my doctorate 31 years ago. During that time I have seen the NRC carefully exercise its duty in protecting the public health through their diligent review of proposed facilities. I would like to speak in favor of the AREVA license application for the Eagle Rock Enrichment Facility.

This facility will be an important part of the nuclear fuel cycle and a key step in providing for future electricity. In building this facility, AREVA will replace 60-year old technology for uranium enrichment with new gas centrifuge technology that is more proliferation resistance, cleaner and a factor of twenty to fifty times more efficient.

The 104 reactors in the US provide about 20% of total US electricity and 69% of the emission-free electricity. However, today, the US has only one operating gas centrifuge plant and the last gaseous diffusion plants are being decommissioned. The one gas centrifuge plant which began operation in New Mexico in June 2010, will be capable of producing 3 MSWU/yr, about 25% of the US need for enrichment. So the US is dependent on imported enrichment for 75% of its commercial fuel needs.

We have seen the construction of many wind turbines in the hills east of Idaho Falls and through the west in the last five years. I applaud the contribution that these turbines can make, though I have yet to see any comparable contribution in Jackson or Sun Valley. But it is important to remember that turbines in the best wind sites have capacity factors of only 30-35%. The nuclear reactors fueled by means of the Eagle Rock Enrichment Facility will provide power with a capacity factor above 90%, that is, they provide more than 90% of their maximum capacity when averaged 24-7, year around. The US needs reliable, sustainable energy for decades to come, and not just when the wind is blowing.

Thank you for the opportunity to comment.

J. Stephen Herring
298 Call Avenue
Idaho Falls, Idaho

Partnership for Science & Technology

Docket ID NRC-2009-0187

Eagle Rock Enrichment Facility Draft EIS Comments
August 12, 2010
Idaho Falls, Idaho

Good evening, my name is Greg Crockett and I serve as the President of the Board of Directors of The Partnership for Science and Technology. Our organization is a nonprofit organization and our mission statement says:

> The Partnership for Science & Technology is a non-profit, public interested organization advocating for advancement of science, energy and technology and providing accurate and timely information on related regional activities including those at the Idaho National Laboratory.

PS&T has followed the licensing process from the time AREVA submitted it in December of 2008 and we appreciate this opportunity to provide comments.

As citizens of the communities closest to the facility, we feel there are certain potential environmental impacts that needed to be addressed in the EIS. We want to thank NRC and its staff for the amount of work that went into the research and evaluation of this Draft EIS along with the Safety Analysis Report.

Last June at the EIS scoping meeting held in Idaho Falls, we asked you to consider the following potential impacts. (1) land use, (2) transportation, (3) geology and soils, (4) water issues, (5) ecological issues, (6) air quality, (7) historic and cultural issues, (8) socioeconomic, (9) public and occupational health, (10) noise, and (11) waste management.

We understand and support the NRC's primary role in the protection of public health and safety and as neighbors of the Eagle Rock Enrichment Facility we thank you for your dedication and expertise.

Following review of the Draft EIS, we concur that the following potential impacts were evaluated and scored correctly under the Council on Environmental Quality's significance levels:

- Land Use: Small
- Transportation: Small to Moderate

- Geology and Soils: Small
- Water Resources: Small
- Ecological Issues: Small to Moderate
- Air Quality: Small to Large (We do understand that during construction dust from heavy equipment working on the proposed site will generate dust from land grading operations that would result in a large but temporary condition. We live in eastern Idaho with its wind and agricultural activity. We don't believe dust will be a significant problem.)
- Historic and Cultural Issues: Small to Moderate
- Public and Occupational Health: Small
- Noise: Small
- Waste Management: Small

We do, however, disagree on the scoring of the socioeconomic impacts. We believe that when you combine the four phases of the project over 30-35 years of prospective operations, the total economic benefit to the region and state will be much higher than stated in the Draft EIS.

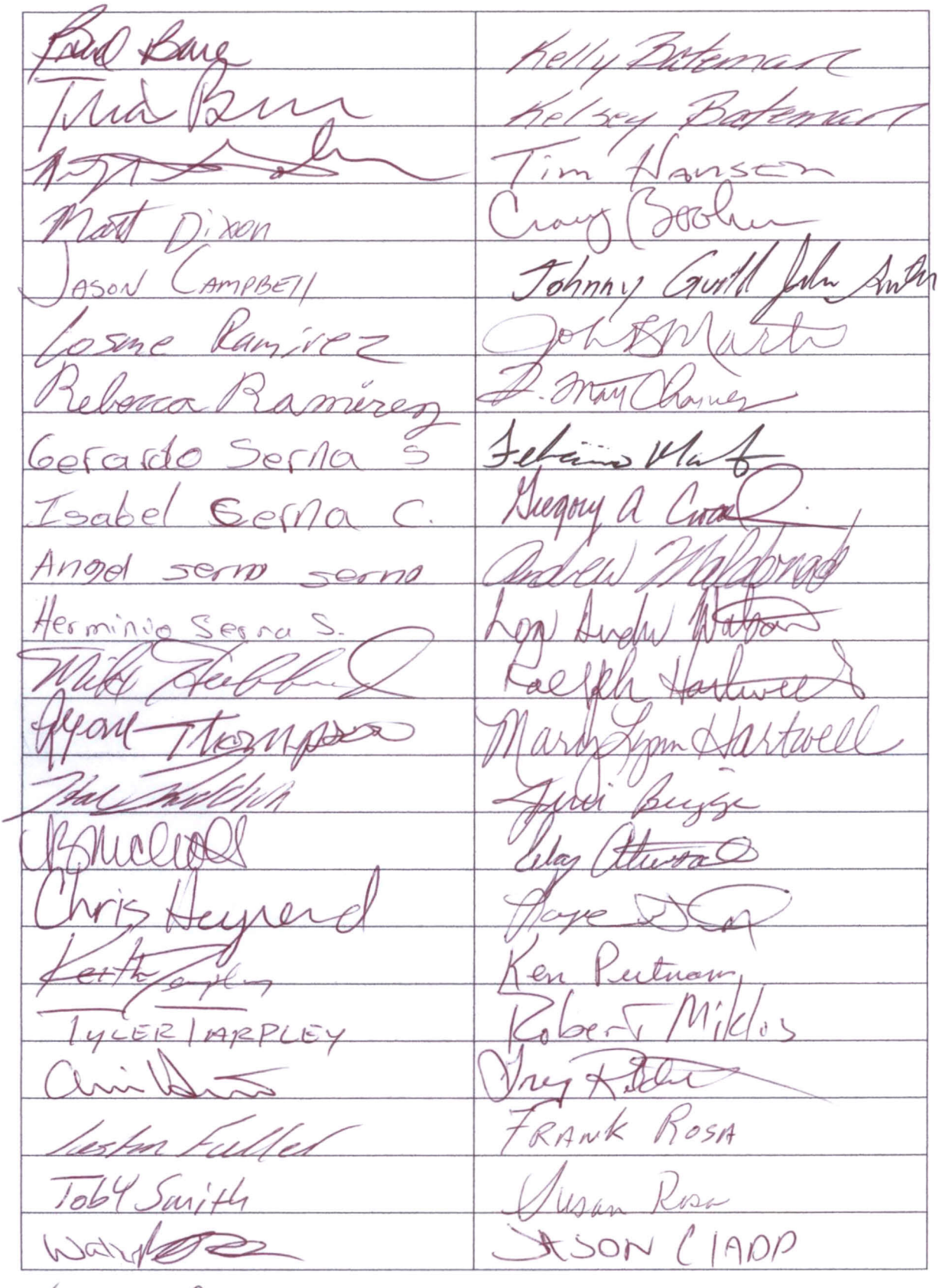
In closing we agree with the NRC staff recommendation that due to the insignificant environment impacts of the Eagle Rock Enrichment Facility, AREVA should be issued a license to construct and operate the facility.

Greg Crockett, President
Partnership for Science and Technology

The following citizens were in attendance at the NRC Eagle Rock Enrichment Facility, NRC Draft EIS public meeting in Idaho Falls on August 12, 2010, and were prepared to make oral comments. Due to time considerations and fact that our comments mirrored those that were presented by the Partnership for Science and Technology the following agree to yield their comment time but request that their signatures be included in the public record in support of the above statement.

Jane Aldgood	
	John E Johnson
	John E. Flinn
Rep. Jeff Thompson	J.D. Cole

Robb Chiles	Bruce Simmons
Jerry Shively	Betina E. Rathbun
[illegible]	Mike Hauswath
[illegible]	Jackie Brubar
Thomas Babneau	Peggy J Hill
Sheila Babneau	Scott E Hill
[illegible]	Chet Mortock, PHD
[illegible]	Jay K. [illegible]
Scott Jones	[illegible]
Jerry Carpenter	Susan Dallmar
[illegible] Moore	Randy Hanser
[illegible]	Julie Thomas
Tom Grimm	Rita Watson
Doug Sepiel	Loren [illegible]
[illegible]	Duane H. Buther
[illegible]	Adam Candler
[illegible]	Justin Bartes
[illegible]	Lisa Bartes
Steve Howes	Lynette Butler
[illegible]	Penny Chism
Kyle Garples	Emmitt W Chism
[illegible]	[illegible]


Kelly Bateman
Kelsey Bateman
Tim Hansen
Craig Booher
Johnny Guill
Josh Martin
Gregory A Cook
Andrew Maldonado
Ralph Hartwell
Mary Lynn Hartwell
Ken Putnam
Robert Miklos
FRANK ROSA
Susan Rose
JASON CLADD
Matt Dixon
JASON CAMPBELL
Losme Ramirez
Rebeca Ramirez
Gerardo Serna S
Isabel Serna C.
Angel serna serna
Herminio Serna S.
Ryan Thompson
Chris Heyerd
TYLER HARPLEY
Toby Smith
TYREL CLADD

W. Knapp - Self	860 W. Riverview IF
Nancy Carlson - VP IRL Retired Employees	Assoc. 274 E. 24th St, IF
Zach Desteruppe	
Timothy Solomon	300 N. yellowstone, I. F. 83401
Nick Nichols	
Kenton Johnson	1900 S Yellowstone Idaho Falls Id 83402
Carol J. Johnson	2695 S. Boulevard Idaho Falls Id 83404
	2122 CALKINS AVE IDAHO FALLS ID 83402
ALEX CREEK U.S. Citizen	656-11th St ID Falls, ID 83404
Dean M. Mortimer	
Jean Henninger	
David P. Martin	237 SPRINGWOODS LN. IDAHO FALLS, ID 83404
Martha Clark	

ieer

INSTITUTE FOR ENERGY AND ENVIRONMENTAL RESEARCH

6935 Laurel Avenue, Suite 201
Takoma Park, MD 20912

Phone: (301) 270-5500
FAX: (301) 270-3029
e-mail: ieer@ieer.org
http://www.ieer.org

IEER Comments on the Nuclear Regulatory Commission's Rulemaking Regarding the "Safe Disposal of Unique Waste Streams Including Significant Quantities of Depleted Uranium"[1]

Arjun Makhijani
October 30, 2009

On March 18, the Nuclear Regulatory Commission (NRC) directed its staff to proceed with a rulemaking to amend the low-level waste rule to take into account the gap in the existing rule,[2] which does not address depleted uranium waste created in large amounts, such as at uranium enrichment plants. This followed the preparation by the staff of a paper, SECY-08-147,[3] which presented the Commission with four options. The March 18, 2009, decision was to proceed with Option 2 as specified in SECY-08-147.

> Previously, in the adjudicatory proceeding for the Louisiana Enrichment Services (LES) license application, the Commission determined that depleted uranium is properly classified as low-level radioactive waste. Although the Commission stated that a literal reading of 10 CFR 61.55(a)(6) would render depleted uranium a Class A waste, it recognized that the analysis supporting this section did not address the disposal of large quantities of depleted uranium. Outside of the adjudication, the staff was tasked to evaluate this complex issue and provide specific recommendations to the Commission. SECY-08-0147 is the result of the Commission's direction and provides recommendations for a path forward.

---

[1] U.S. Nuclear Regulatory Commission, "Notice of Public Workshop on a Potential Rulemaking for Safe Disposal of Unique Waste Streams Including Significant Quantities of Depleted Uranium," *Federal Register* v.74, no.120 (June 24, 2009), pages 30175-30179, on the Web at http://edocket.access.gpo.gov/2009/pdf/E9-14820.pdf. Hereafter referred to as NRC FR Notice 2009. Hereafter NRC FR Notice 2009.

[2] Annette L. Vietti-Cook (Secretary [of the Commission]), Memorandum to R. W. Borchardt (Executive Director for Operations), *Staff Requirements – SECY-08-0147 – Response to Commission Order CLI-05-20 Regarding Depleted Uranium*, Nuclear Regulatory Commission, March 18, 2009, on the Web at http://www.nrc.gov/reading-rm/doc-collections/commission/srm/2008/2008-0147srm.pdf. The Commission's approval of the staff's recommendation was not unanimous. Commissioner Gregory Jaczko dissented. See below.

[3] R.W. Borchardt (Executive Director for Operations), to the Commissioners [of the NRC], *Response to Commission Order CLI-05-20 Regarding Depleted Uranium*, Rulemaking Issue, SECY-08-0147, October 7, 2008, on the Web at http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2008/secy2008-0147/2008-0147scy.pdf. Hereafter referred to as SECY-08-0147 2008.

> As an initial approach to addressing this complicated issue, the Commission has approved the staff's recommended Option 2 to 1) proceed with rulemaking in 10 CFR Part 61 to specify a requirement for a site-specific analysis for the disposal of large quantities of depleted uranium (DU) and the technical requirements for such an analysis; and 2) to develop a guidance document for public comment that outlines the parameters and assumptions to be used in conducting such site-specific analyses.
>
> In revising 10 CFR 61.55(a)(6) in this limited scope rulemaking, the Commission is not proposing to alter the waste classification of depleted uranium. Eventual changes to waste classification designations in the regulations must be analyzed in light of the total amount of depleted uranium being disposed of at any given site. However, the Commission is stating that for waste streams consisting of significant amounts of depleted uranium, there may be a need to place additional restrictions on the disposal of the depleted uranium at a specific site or deny such disposal based on unique site characteristics and those restrictions should be determined by a site specific analysis which satisfies the requirements of the proposed new 61.55(a)(9). This thought should be clearly indicated in the proposed rulemaking package seeking public comment. As part of this rulemaking, the staff should promptly conduct a public workshop inviting all potentially affected stakeholders, including licensees, state regulators and federal agencies. At this workshop, the staff should discuss the issues associated with the disposal of depleted uranium, the potential issues to be considered in rulemaking, and technical parameters of concern in the analysis so that informed decisions can be made in the interim period until the rulemaking is final.[4]

The first thing to note here is that the Commission is proposing only to revise 10 CFR 61.55(a)(6) and to add a new paragraph 10 CFR 61.55(a)(9), which does not now exist. Specifically, it is *not* proposing within this limited rulemaking to modify any part of 10 CFR 61 outside of 10 CFR 61.55(a). This intention is also clear from the Federal Register notice announcing the workshops.[5] The second critical thing to note is that the vote was not unanimous. Commissioner Jaczko, who has since been appointed the Chairman of the NRC, voted against Option 2, having earlier stated his preference for Option 3:

> In my original vote on SECY-08-0147, I approved Option 3 (determine classification for depleted uranium within existing classification framework) and I disapproved the staff's recommendation for Option 2 (rulemaking to specify requirement for site-specific analyses for the disposal of large quantities of depleted uranium). Since that vote, which was dated November 3, 2008, more information has come to light that I would like to address in my vote.
>
> The disposal of large quantities of depleted uranium (DU) is a unique challenge because, unlike typical low-level waste, the doses increase over time rather than decrease. The technical analysis included with SECY-08-0147 indicates that

---

[4] Annette L. Vietti-Cook (Secretary [of the Commission]), Memorandum to R. W. Borchardt (Executive Director for Operations), *Staff Requirements – SECY-08-0147 – Response to Commission Order CLI-05-20 Regarding Depleted Uranium*, Nuclear Regulatory Commission, March 18, 2009, on the Web at http://www.nrc.gov/reading-rm/doc-collections/commission/srm/2008/2008-0147srm.pdf.

[5] NRC FR Notice 2009.

> additional requirements are likely needed for disposal of large quantities of DU in order to protect public health and safety; for example, increased waste disposal depth or robust radon barriers may be required. However, Option 2 does not explicitly change the classification of DU as presently provided for in 10 CFR 61.55 and therefore the waste would remain classified as Class A. I do not believe that it is logical to argue that that waste that requires additional requirements for disposal (similar to those required for Class C waste) can still be labeled as Class A waste.[6]

As directed by the Commission, , the NRC staff held a two day workshop in Bethesda, Maryland, in which I was an invited participant, as well as one in Salt Lake City.[7] The proceedings were transcribed. The transcript and slide presentations have been posted on the NRC's website.

I will first provide comments on the DU portion of the rulemaking and then provide briefer comments relating to other unique waste forms and the NRC's proposal for a longer term risk-informed revision of the entire low-level waste rule.

A. SECY-08-147 Is Fundamentally Deficient in Concept

Option 2, as described in SECY-08-147, is to keep the existing designation of DU as Class A waste based on the default paragraph in the low-level waste rule 10 CFR 61.55(a)(6). This paragraph states: "If radioactive waste does not contain any nuclides listed in either Table 1 or 2, it is Class A." Since this was recognized as insufficient for ensuring health and safety, Option 2 proposes the addition of a new paragraph. The proposal is summed up in SECY-08-147 as follows:

> Proposed Change: Modify paragraph 61.55(a)(6) to include a statement that, for unique waste streams including, but not limited to, large quantities of depleted uranium, the requirements of § 61.55(a)(9) of this part must be met. Section 61.55(a) would then be modified to include a paragraph (a)(9), which would include a requirement that *the disposal facility licensee must perform, and the Commission must approve, a site specific analysis demonstrating that the unique waste stream, including large quantities of depleted uranium, can be disposed of at the site in conformance with the performance objectives in subpart C to Part 61.*[8]

---

[6] *Commissioner Jaczko's Revised Comments on SECY-08-0147 Response to Commission Order CLI-05-20 Regarding Depleted Uranium*, March 6, 2009, on the Web at http://www.nrc.gov/reading-rm/doc-collections/commission/cvr/2008/2008-0147vtr.pdf. See pdf pp. 7 and 8.

[7] The transcripts for both the Maryland (September 2 and 3, 2009) and the Utah (September 23 and 24, 2009) Workshops, the slide presentations, and background documents are available on the NRC's web page: *Unique Waste Streams*, on the Web at http://www.nrc.gov/about-nrc/regulatory/rulemaking/potential-rulemaking/uw-streams.html. Hereafter cited as NRC DU meeting transcript, September 2, 2009, and NRC DU meeting transcript September 3, 2009.

[8] SECY-08-0147 2008, p. 8. Italics, in the original, provide the text of the proposed new paragraph.

There are is a fundamental problem with this paragraph. It *assumes* that there exist sites that can comply with the performance requirements of 10 CFR 61, Subpart C. SECY-08-0147 provides no site-specific analysis to prove this in even one case. As we will see, the generic analysis of various types of sites and scenarios performed are fundamentally deficient in their assumptions and in their modeling. The NRC staff did not take into account even the possibility that no site would be found suitable under the performance requirements of Subpart C. Option 2 contains no fallback provision to examine alternative methods of managing large amounts of DU that could meet the performance requirements. Specifically, it does not consider deep disposal.

But the problem goes even deeper. The NRC staff failed even in its generic and deficient analysis to examine whether shallow land burial (at sufficient depth but less than 30 meters) could meet the performance requirements of Subpart C. So far as limiting dose to the general public are concerned, those performance requirements are specified at 10 CFR 61.41 as follows:

> Concentrations of radioactive material which may be released to the general environment in ground water, surface water, air, soil, plants, or animals must not result in an annual dose exceeding an equivalent of 25 millirems to the whole body, 75 millirems to the thyroid, and 25 millirems to any other organ of any member of the public. Reasonable effort should be made to maintain releases of radioactivity in effluents to the general environment as low as is reasonably achievable.

SECY-08-0147 did not calculate organ doses at all despite the fact that the main radionuclides in question – uranium-238, uranium-234, thorium-230, radium-226, radon-222 (and its daughters) – have dose conversion factors for particular organs that are much greater than for the equivalent dose to the whole body. For instance, the bone surface dose due to radium-226 per unit intake by ingestion is about 44 times larger than the whole body dose equivalent. As another example, the target organ for radon-222 (and its decay products) is the lung and other organs get minimal doses. When organ dose to whole body equivalent ratios for inhalation are considered (important in case waste is uncovered by erosion, especially in dry areas), the differences can be even greater. The ratio of bone surface dose to the whole body effective dose equivalent for inhalation of medium solubility thorium-230 is more than 50.[9]

Other examples are easy to provide. For instance, the bone surface dose from drinking water contaminated with lead-210 (a decay product of radon-222) is more than 30 times bigger than the committed whole body equivalent dose.

At the Bethesda, Maryland, workshop, I asked why the performance assessment was not according to the criteria in 10 CFR 61 Subpart C. Dr. Esh, the principal author of the analysis in SECY-08-147, stated that the NRC staff had used a "modern" approach and used TEDE as the performance criterion:

> Primarily because in more recent evaluations; in particular, for waste incidental to reprocessing, we have had direction from the Commission to use more modern methods, instead of those old methods. So we followed that direction. [10]

[9] Dose conversion factors are from EPA's Federal Guidance Report 13.
[10] NRC DU meeting transcript, September 2, 2009, p. 104.

I pointed out that human beings still have organs, and 10 CFR 61 Subpart C requires organ dose calculations, so it is not a question of "modern" methods of calculation. Further, the most recent EPA method of internal dose calculation, published as Federal Guidance Report 13, allows for both organ dose and whole body effective dose equivalent calculations. So it is not even a question of "modern" methods versus obsolete methods.

Also, whether a certain method is "modern" or not or whether only whole body equivalent doses are used in other parts of the NRC's work is irrelevant. The plain language of the present DU rulemaking process requires an evaluation relative to the performance requirements of 10 CFR 61, and those requirements are in Subpart C. In turn, Subpart C requires, among other things, limitation of organ dose. Hence, in every circumstance where organ dose may exceed whole body effective dose equivalent, as is the case with DU disposal, the rule *requires the calculation dose to the critical or most exposed organ.*

As noted above, the Commission is proposing only to revise 10 CFR 61.55(a)(6) and add a new paragraph that would specify disposal requirements for DU. The Commission has not authorized modification of 10 CFR 61 Subpart C. Specifically, it has not anywhere mentioned that the organ dose requirement of 10 CFR 61.41, which is in Subpart C, is to be ignored or changed. Further, SECY-08-0147 itself states that it will examine whether compliance with 10 CFR 61 Subpart C can be achieved with shallow land burial:

> The technical analysis addressed whether amendments to § 61.55(a) are necessary to assure large quantities of DU are disposed of in a manner that meets the performance objectives in Subpart C of 10 CFR Part 61.[11]

Dr. Esh, the principal NRC staff author of SECY-08-0147, explicitly stated during the Bethesda, Maryland, workshop that the NRC was not proposing to modify Subpart C.[12]

But SECY-08-0147 did not evaluate performance of DU disposal in shallow land facilities according to a principal element of the requirements of Subpart C. Rather SECY-08-0147 entirely ignored the organ dose calculation requirements of Subpart C as specified in 10 CFR 61.41. This is a central problem with the present proceeding without any other factor. Further, were organ doses to be calculated, even with the fundamentally deficient modeling in SECY-08-0147 (see below), that, contrary to the conclusions of the SECY-08-0147, the model may show that the performance requirements of Subpart C would not be met by shallow land disposal.

The decision of the NRC instructing the staff to proceed with the rulemaking based on Option 2 is basically flawed since it depends centrally on the technical analysis of the NRC staff in SECY-08-0147 actually showing that it was, at least in theory, possible that some imaginable shallow land configuration could meet the performance requirements of Subpart C. But SECY-08-0147 is fundamentally incomplete since it did not even attempt to calculate organ doses, which are most important, under the circumstances, for evaluating disposal performance.

---

[11] SECY-08-0147 2008, p. 1.
[12] NRC DU meeting transcript, September 2, 2009, p. 105.

Recommendation 1: Since the entire premise of proceeding is fundamentally flawed in regard to the performance requirements of Subpart C, and since the staff paper on which the NRC made its decision to proceed with this rulemaking did not even attempt to calculate organ doses, as required by Subpart C, the NRC should stop the present process immediately and begin a new rulemaking that properly specifies the parts of the rule that are being considered for revision and that provides the relevant NRC analysis to the public so that it may comment upon it.

B. Scientific Deficiencies in SECY-08-0147

The main technical premise on which the proposed rule change in regard to disposal of significant amounts of DU as Class A waste is that it can be shown that certain low-level waste shallow land disposal facilities would meet the performance requirements of 10 CFR 61. In this section we will leave aside the basic problem that SECY-08-147 did not evaluate the most important part of the performance requirement (dose to the critical organ) and focus on the model and the assumptions that the staff used in SECY-08-147 to analyze performance.

The following are features of the analysis of performance in SECY-08-0147:

- It considers sites in various climatic zones, but is not site specific.
- It assessed doses for one million years – the approximate period during which the decay products of U-238, the main ingredient of DU, continue to build up. This approximates a peak dose calculation.
- As radium-226 builds up over thousands of years, radon-222 emissions increase. Radon-222 doses were included in the analysis. A clay layer that would inhibit radon migration was included. Given the assumption of no erosion, this layer would essentially stay intact over a million years.
- Shallow burial (defined as less than 30 meters depth) at various depths was considered.
- Chronic intruder as well as offsite resident doses were considered.
- Various exposure pathways were considered.
- Both air and water induced erosion were assumed to be zero for one million years.
- An ad hoc model, consisting of a commercial Monte Carlo package and an in-house spreadsheet, was developed.
- The dose assessment was based on TEDE, which is Total Effective Dose Equivalent (defined as the sum of deep external dose and committed effective dose equivalent for internal dose).
- For the offsite resident a 25 millirem annual TEDE dose limit was applied as the performance objective. For the chronic intruder who builds a house above the disposal site, a 500 millirem annual dose limit (TEDE) was applied as the performance objective.[13]

[13] It should be noted that 10 CFR 61 requires assurance that an inadvertent intruder be protected after institutional control expires, but does not specify a dose limit. 10 CFR 61.42 states in its entirety: "Design, operation, and closure of the land disposal facility must ensure protection of any individual inadvertently intruding into the disposal

The results of the modeling were as follows:

- Using the TEDE approach, the analysis concluded that shallow land burial, less than 3 meters deep, was not suitable for DU, except for "small quantities" defined as 1 to 10 metric tons.[14]
- Disposal of DU in large amounts at humid sites "with viable water pathways is probably not appropriate."[15]
- For disposal at 5 meters or deeper, up to 30 meters, SECY-08-0147 concluded that disposal at arid sites could meet performance criteria:

> Depleted uranium can be disposed of under arid conditions and meet the Part 61 performance objectives for 1,000 to 1 million years performance periods, if the waste disposal depth is large, or robust barriers are in place to mitigate radon.[16]

Besides the failure to evaluate doses to organs, the following limitations of the analysis should be noted (most came up during the presentations or the discussion at the Bethesda, Maryland, workshop):

1. Climate change was not considered – that is, a constant climate was assumed for one million years.
2. Changes to the chemical form of uranium over one million years were not considered.
3. Colloidal transport of radionuclides was not included.
4. The clay barrier to radon migration into a home built over or near the disposal area was assumed to stay intact over a million years (e.g., no cracks would develop that may allow more migration of radon into the house). The effects of aeolian or fluvial erosion were not considered. The assumption was that the site would be stable for one million years. (The assumption is stated as follows in SECY-08-0147: "Site stability requirements would be achieved. There will not be significant releases of waste to the environment from fluvial or aeolian erosion."[17]

Let us consider these problems one by one.

1. Climate change

It is scientifically unsound and contrary to the available data to assume that climate will not change for one million years. Even without the anthropogenic emissions that are currently accelerating climate change, climate has changed naturally on times scales of thousands of years. For instance, Dr. Peter Burns of the University of Notre Dame, a geochemist invited by the NRC to participate in both workshops, and who participated in both of them, noted that Death Valley

---

site and occupying the site or contacting the waste at any time after active institutional controls over the disposal site are removed." A figure of 500 mrem per year is often used for performance assessment.

[14] SECY-08-0147 2008, Enclosure 1, p. 16.

[15] SECY-08-0147 2008, Enclosure 1, p. 16.

[16] SECY-08-0147 2008, Enclosure 1, p. 16. Emphasis in the original.

[17] SECY-08-0147 2008, Enclosure 1, p. 9.

was underwater 10,000 years ago and that climate projections could not be relied on for 10,000 or 100,000 or 1 million years.

Climate affects practically every environmental factor relevant to the performance assessment from the integrity of the cap to erosion rates to dilution of radionuclides in groundwater. As one example, the model results in SECY-08-0147 show that "[r]adon fluxes to the environment are very sensitive to the long-term moisture state of the system."[18] Since rainfall is one critical parameter to vary in climate, the radon dose results would evidently also be affected. Similarly, radon dose results would be affected if the integrity of the clay liner is damaged or destroyed by variations in rain, snow, temperature, and/or wind that are greater than those assumed in the modeling. (SECY-08-0147 assumes no erosion even from the present climate – see below).

In fact, the record of the Bethesda, Maryland, workshop shows that even the NRC staff agreed that ignoring climate change for such long periods was not appropriate. The terms "silly" and "silliness" came up in the context of trying to describe attempts to model shallow land burial for a million years, but it was suggested by the moderator, Chip Cameron, that this was perhaps not the best language to use in a regulatory context.[19] Whatever, the term used to describe the fact that the modeling ignored climate change, the essence of the matter is that there was general agreement that climate change should not be ignored for shallow land burial for periods much shorter than one million years – for instance over 10,000 years. This is not as important in the context of radionuclides with half-lives that are much shorter than 10,000 years, but in a context of DU, where the specific activity of the material is growing due to the build up of daughter products, it is essential to consider climate change.

Recommendation 2: Future modeling for disposal of significant amounts of DU should include climate change.

2. Chemical changes to the form of DU

SECY-08-0147 considered only shallow land burial, with a clay cap being put over the waste. By its very nature, the environment of the DU would be oxidizing. Elementary considerations show that there would be considerable chemical changes, especially over long periods of time in the proposed waste form, U_3O_8, that the NRC has accepted as suitable for disposal in its licensing process of the two uranium enrichment plants (LES and USEC) that were granted licenses in 2006 and 2007 respectively. Ignoring chemical changes in U_3O_8 in an oxidizing environment is not only scientifically unsound, but it also leads to potential underestimates of uranium mobilization in groundwater. Such mobilization may be enhanced by the presence of complexing compounds. The dose estimates in SECY-08-0147 may therefore be considerable underestimates, notably via the water pathway (including radon via the water pathway).

Recommendation 3: A technical discussion of the expected changes in chemical forms in the specific environment in which disposal is proposed is essential. Specifically, the effects of an oxidizing environment on the specific waste form proposed, including U_3O_8, needs to be analyzed in detail.

---

[18] SECY-08-0147 2008, Enclosure 1, p. 15.

[19] NRC DU meeting transcript September 2, 2009, at various places in pp. 98 to 116 and also pp. 185, 195, and 251.

3. Colloidal transport

In the modeling in SECY-08-0147, the principal pathways for radionuclides to reach the human environment are diffusion of radon through the clay barrier and dissolution of radionuclides in groundwater and from that various other water related pathways, such as ingestion of contaminated food irrigated with contaminated water. However, colloidal transport of radionuclides was not considered. This could be a significant pathway, especially for insoluble forms of uranium and its decay products.

Recommendation 4: Colloidal transport needs to be included in the modeling of DU disposal.

4. The assumption of long-term stability

The model assumes that the disposal site, including the clay cap, will be stable for one million years. Erosion is ignored. It is assumed that the clay liner will not crack for one million years. This is a critical factor in the performance modeling results. Cracks would provide a fast path for radon migration. Assuming that a clay liner will stay intact therefore results in spuriously low radon dose estimates. Of course, considering a thinning of the cap or a complete erosion of the cap prior to dissolution of the waste would result in very large long term doses. For instance, uncovering of the waste by aeolian erosion in a few thousand years would expose intruders to large external gamma doses from radium-226. These doses would be very small if the cap stays intact, which is the assumption in SECY-08-0147. It can be expected that large doses would result from shallow land burial even at the depths at which SECY-08-0147 derives low doses in dry climate if there any significant erosion. This has been demonstrated in straightforward modeling exercises by the Institute for Energy and Environmental Research which were introduced into testimony during the LES licensing proceedings.[20]

Recommendation 5: A realistic modeling of the shallow land burial needs to be done that would include fluvial and aeolian erosion, the effects of compromises of the integrity of the clay cap via the development of cracks, etc.

5. Conclusions regarding modeling in SECY-08-0147

Several of the modeling assumptions that play large roles in the conclusion of SECY-08-0147 that there could exist shallow land disposal sites where doses would be small (less than 25 millirem per year whole body effective dose equivalent) are scientifically unsound. A realistic

---

[20] Arjun Makhijani and Brice Smith, *Costs and Risks of Management and Disposal of Depleted Uranium from the National Enrichment Facility Proposed to be Built in Lea County New Mexico by LES,* Takoma Park, MD: Institute for Energy and Environmental Research, November 24, 2004. Version for public release redacted on Feb. 1, 2005, on the Web at http://www.ieer.org/reports/du/lesrpt.pdf, p. 24 (Hereafter Makhijani and Smith 2004/2005) and Arjun Makhijani and Brice Smith, "Update to *Costs and Risks of Management and Disposal of Depleted Uranium from the National Enrichment Facility Proposed to be Built in Lea County New Mexico by LES by Arjun Makhijani, PhD. and Brice Smith, Ph.D. based on information obtained since November 2004,*" Takoma Park, MD: Institute for Energy and Environmental Research, July 5, 2005. Version for public release redacted on Aug. 10, 2005, on the Web at http://www.ieer.org/reports/du/LESrptupdate.pdf, p. 16. Hereafter Makhijani and Smith 2005.

analysis that took such factors as climate, clay cap stability, and geochemical considerations into account would lead to three potential conclusions. First, there is no reliable way to estimate long term performance of DU in shallow land disposal facilities. Second, radiation doses from shallow land burial under even modestly realistic assumptions are likely to be well over the performance requirements of Subpart C. Third, the uncertainties in such dose estimates would be so high that they would be reasonably considered unreliable.

It is reasonable to conclude that a scientifically reliable assessment of DU disposal in shallow land disposal facilities cannot be made for the time periods at which peak doses from DU would be expected, or even much shorter time periods of 10,000 or more years.

C. Period of Performance

The Federal Register notice seeks comment on whether the period for which the performance requirements in regard to dose be limited. There is at present no limitation for period of performance in 10 CFR 61. Specifically, Subpart C has no time limitation in it. The Federal Register notice explains the situation as follows:

> NRC continues to consider 10,000 years a sufficient period, with some exceptions, to capture (i) the risk from the short-lived radionuclides, which comprise the bulk of the activity disposed; and (ii) the peak radiological doses from the more mobile long-lived radionuclides, which tend to bound the potential radiological doses at time frames greater than 10,000 years ….As part of a planned rulemaking, NRC is soliciting stakeholder views regarding a time period to evaluate the performance of near-surface disposal of unique waste streams.[21]

Neither condition that normally applies the customary period of 10,000 years for which NRC considers it suitable to estimate performance applies to significant amounts of DU. The first condition obviously does not apply since all three isotopes of uranium in DU (U-234, U-235, and U-238) are very long-lived. The second condition also does not apply. DU from enrichment plants or other similarly pure or nearly pure DU (in any common chemical form) has a specific activity that is far greater than the 100 nanocuries per gram associated with the limit for Class C waste containing transuranic alpha emitters. Under dry climatic conditions, should they persist (as is assumed in some scenarios in SECY-08-0147), the DU would not be expected to be mobile enough for most of it to migrate away from the site. This is indicated by the peak dose analyses in SECY-08-0147.

I have argued in expert testimony before the NRC that DU from enrichment plants is much like (GTCC) waste containing long-lived alpha-emitting transuranic radionuclides at concentrations greater than 100 nanocuries per gram. This conclusion finds support in a National Research Council publication as well.

> If disposal [of depleted uranium oxide] is necessary, it is not likely to be simple. The alpha activity of DU is 200 to 300 nanocuries per gram. Geological disposal is required for transuranic waste with alpha activity above 100 nanocuries per

[21] NRC FR Notice 2009, pp. 30176-30177.

> gram. If uranium were a transuranic element, it would require disposal in the Waste Isolation Pilot Plant (WIPP) based on its radioactivity. The chemical toxicity of this very large amount of material would certainly become a problem as well. One option suggested by the U.S. Nuclear Regulatory Commission (USNRC) is disposal in a mined cavity or former uranium mine. Challenges for this option would include understanding the fundamental differences between uranium ore (see Sidebar 6.1) and the bulk uranium oxide powder.[22]

The peak doses from DU disposal are expected to occur after thousands of years, hundreds of thousands of years, or even a million or more years, depending on the chemical form, disposal site characteristics, etc. Hence, the normal criteria of the NRC limiting performance evaluation to 10,000 years do not apply.

The staff's position in SECY-08-0147 regarding the period of performance is ambiguous:

> Considering the technical aspects of the problem, the performance assessment staff recommends a performance period of *10,000 years* for the analysis of *DU* disposal. However, analyses should be performed to peak impact, and if those impacts are significantly larger than the impacts realized within 10,000 years, then the longer term impacts should be included in the site environmental evaluation.[23]

It is unclear from this whether or not the staff intends for the peak dose to meet Subpart C criteria or not. However, unless Subpart C is sought to be changed, the performance assessment must be carried to the time of peak dose and the dose criteria of 10 CFR 61.41, including organ dose, must be met. But it should be noted in this context that the NRC staff itself does not consider the analysis in SECY-08-147 to be conservative.

Specifically, SECY-08-0147 and its Enclosure 1, states that the staff developed a "screening model" to do a "screening analysis" whose purpose "was to evaluate key variables such as disposal configurations (disposal depth and barriers), performance periods, institutional control periods, waste forms, site conditions, pathways, and scenarios."[24]

During the Bethesda, Maryland, workshop, I asked whether the term "screening" was being used to indicate a conservative analysis – that is, an analysis that would give an upper bound for the dose estimate, so that one could be reasonably assured that a more realistic analysis would yield a lower dose estimate. In other words, such a screening analysis would lead to an assurance that the conclusion that DU could be disposed of in shallow land burial and meet specified performance criteria was robust.

---

[22] National Research Council, Board on Radioactive Waste Management, Committee on Improving the Scientific Basis for Managing Nuclear Materials and Spent Nuclear Fuel through the Environmental Management Science Program, *Improving the Scientific Basis for Managing DOE's Excess Nuclear Materials and Spent Nuclear Fuel*, National Academies Press, Washington, DC, 2003. On the Web at http://books.nap.edu/books/0309087228/html/index.html., p. 67 as quoted in Makhijani and Smith 2004/2005, pp. 7-8.

[23] SECY-08-0147 2008, Enclosure 1, p. 21. Emphasis in original.

[24] SECY-08-0147 2008, Enclosure 1, pp. 8-9.

Dr. Esh indicated that the term "screening analysis" was not used in that sense in the paper. He agreed with the suggestion that the screening model in SECY-08-0147 "wasn't conservative."[25]

Conclusion regarding period of performance: The conclusion from the above is that if the NRC wishes to assess performance of disposal of DU in significant amounts according to Subpart C, which contains no time limits, then a limit on the period of performance to 10,000 years is entirely inappropriate. The stated goal of the proposed rulemaking exercise is to limit consideration of changes to 10 CFR 61.55(a). Therefore, a limitation on the period of performance cannot be used for disposal of significant quantities of DU within the context of the present rulemaking. An entirely new rulemaking proceeding would be needed, since restricting performance evaluation to anything short of peak dose in this case would be a de facto change in Subpart C.

One may conclude the following by examining the transcripts of the Bethesda, Maryland, workshop (as well as the Salt Lake City workshop):

- Uncertainties become very large over periods as long as 10,000 to one million or more years,
- Modeling shallow land burial over periods as long as a million years or more quantitatively with some confidence appears infeasible, and
- The main radiological problems in dry areas, other than those that might be associated with uncovering the waste, appear over the long term (thousands of years or more), presuming the areas remain dry.

During the Bethesda, Maryland, workshop, there were several suggestions about restricting the period of performance. One was to use the period now required for mill tailings (1,000 years); another was to use the period required under 40 CFR 191 for deep geologic disposal, for instance at the Waste Isolation Pilot Plant (10,000 years). However, none of these suggestions can be legitimately considered under in the present rulemaking. If the NRC wants to consider limiting the period of performance for significant amounts of DU, then it must start a new proceeding and propose changes in Subpart C, along with the rationale for those changes.

The rationale for limiting the period of performance cannot be simply to protect the industry or provide the industry with a way to get rid of DU from enrichment plants or even that it is difficult to do a modeling exercise to the time of peak dose. Since it is the NRC's mandate to protect public health, and since public health can be much better protected with appropriate deep disposal similar to geologic disposal at WIPP, the NRC must first consider such deep disposal before it considers any relaxation of Subpart C. This would also require a different rulemaking from the one that the NRC is now embarked upon.

In the context of deep geologic disposal, where estimating performance can be done on a better scientific foundation, the NRC might consider adopting the approach taken in the French high-level waste rule. That rule recognizes that the uncertainties increase greatly beyond 10,000

[25] NRC DU meeting transcript, September 2, 2009, p. 83.

years. But instead of changing the dose performance standard, it changes the method by which the modeling is done:

- For up to 10,000 years, the uncertainties in the parameters are specified explicitly and probability distributions are provided. This gives a realistic set of estimates of what the performance would be, assuming the parameters are well characterized.
- Beyond 10,000 years the conservative, fixed values are used for parameters so as to calculate an upper limit of the dose. The same dose reference number is maintained but now we have what would be a bounding value for the long term, presuming the upper bound parameters: climate, geological, and others can be specified in a scientifically defensible way.[26]

D. Some Other Matters

It is important to note that SECY-08-0147 did not analyze performance of above-ground structures, such as those used at the EnergySolutions facility in Utah. Hence, any rule change would not apply to disposal at that site, unless the NRC actually develops modeling approaches for above ground structures for a million years. This would be an even more unrealistic task than the one undertaken in SECY-08-0147 to estimate performance in below ground shallow disposal.

E. Other "Unique" Waste Forms

Like significant amounts of DU, there are several other waste streams that do not clearly fall into the present structure of 10 CFR 61.55(a) as is recognized now by the NRC. These could include significant amounts uranium recovered during reprocessing for instance. Such uranium is typically contaminated with transuranic radionuclides and some fission products.

DU in large amounts is in many ways the best characterized and known of such potential waste streams. There should be no consideration of other waste streams within the present proposed rulemaking to revise 10 CFR 61.55(a)(6) and add a new para 10 CFR 61.55(a)(9).

F. The Rights of Agreement States

States that regulate civilian nuclear licensees under agreement with the NRC ("Agreement States") are required to meet a complex set of "compatibility" requirements to ensure that NRC requirements are being met. The regulation and enforcement is done at the state level in such cases. But the NRC has the responsibility to ensure that there is compliance with applicable federal regulations. The industry and state regulator sentiment is for the NRC to give the

---

[26] Règle N° III.2.f (10 juin 1991) *Règles fondamentales de sûreté relatives aux installations nucléaires de base autres que reacteurs Tome III: production, contrôle et traitement des effluents et déchets. Chapitre 2: Déchets solides*, on the Web at http://www.asn.fr/index.php/Les-actions-de-l-ASN/La-reglementation/Reglementation-associee/Regles-fondamentales-de-surete-et-guides-de-l-ASN/RFS-III.2.f-abrogee-par-le-guide-de-surete-relatif-au-stockage-definitif-des-dechets-radioactifs-en-formation-geologique-profonde-du-12.02.08.

maximum possible leeway to state authorities. States can generally set more conservative standards than those at the federal level.

During the Bethesda, Maryland, workshop I expressed concerns as to whether there was adequate oversight regarding the two sites that may, in the near future, dispose of DU from enrichment plants – Utah (EnergySolutions site) and Texas (Waste Control Specialists (WCS) site). Specifically, I raised the issue of whether the NRC was adequately exercising its oversight responsibilities. I had raised the same issue during my testimony as an expert witness for the intervenors in the National Enrichment Facility licensing case.

Specifically, I found that some of the results of the modeling done in a performance assessment that underlies the EnergySolutions license contained physically impossible numbers. For instance, more uranium-238 was proposed to be disposed of per gram of Utah soil than the weight of the Earth. I was asked during the Bethesda, Maryland, workshop whether I was comfortable with the State of Texas agreeing to a DU concentration limit for the WCS site. I said that the last time I looked at the WCS issue, which was four years ago, I was not convinced that WCS was even qualified to receive radioactive waste – since, among other things, their license application at that time proposed to dispose of more U-235 as waste than had ever been mined.[27]

If the NRC and the state of Utah has failed to require a correction of such evident scientific problems, even though it has been formally put on the table, how could one be confident of the process for licensing and enforcing DU disposal regulations? Neither has the NRC responded to my comment regarding WCS during the workshop.

I also pointed out that IEER has done the only independent site specific analysis of DU disposal by shallow land burial for the WCS site and of a site with parameters corresponding to the Utah site. Our analysis had shown that doses would be exceeded at both sites by large margins in well under one million years and in most cases on times scales on the order of 10,000 years. I was told, informally, that NRC staff would look into the record of the LES proceeding. In response, I told them I would supply the IEER LES reports to the staff. IEER has sent the URLs for the reports to the moderator Chip Cameron.[28]

Expectation of IEER: We expect that before any draft rule is promulgated that the NRC will respond specifically to the above problems in regard to WCS and EnergySolutions and also make clear whether it intends to be more vigilant in regard to elementary matters of science when it comes to oversight of agreement states.

---

[27] See Makhijani and Smith 2005, for instance at p. 2 and p. 20.

[28] Post-workshop note: IEER sent the URLs to the moderator Chip Cameron on September 21, 2009. These are also cited in footnote 21, above.

G. Conclusions

The present rulemaking is based on the false premise that SECY-08-0147 has demonstrated the feasibility of adequate performance relative to Subpart C of some shallow land disposal facilities. SECY-08-0147 did not actually calculate performance relative to the most important requirement of Subpart C – organ dose. It is also fundamentally flawed in its science and in its assumptions. The suggestions as to limitation of period of performance are, given the NRC's own normal criteria, entirely out of order in this proposed rulemaking.

The Federal Register Notice as well as the NRC instruction to the staff was to consider a very limited change to the low-level waste rule. Specifically, the Commission directed the staff to consider a revision of 10 CFR 61.55(a)(6) and to add a new paragraph 10 CFR 61.55(a)(9) that would specify how a site specific analysis for depleted uranium (and possibly other "unique waste streams") should be done. Associated guidance was also to be developed. The NRC did not state that performance requirements specified in 10 CFR 61 Subpart C would be modified. On the contrary, both the NRC and the NRC staff have represented that the intent is not to modify Subpart C but to assess performance with respect to the requirements of Subpart C.

The analysis of SECY-08-0147 did not assess performance according to all the requirements of Subpart C. Specifically, organ doses were not estimated. There were also explicit suggestions that the period of performance for disposal of significant quantities of DU might be limited in some way. This would also be a material change to Subpart C in the context of disposal of large amounts of DU.

The proposed rulemaking cannot change Subpart C either explicitly or implicitly – for instance by omitting organ dose calculations or limiting the period of performance. The NRC has not provided any estimate of the changes in health damage that may be expected as a result of changes in Subpart C. As a result, the public has been provided with no opportunity to comment specifically on the changes that would be made to their protection of their health aspects as a result of any explicit or implicit changes in Subpart C.

A change to Subpart C, where the core public health provisions of the low-level waste regulations are specified, would be a major change to the regulation. The Atomic Energy Act requires the NRC to have public health protection as one its primary purposes and it empowers the NRC to take action accordingly. A change to Subpart C, which is central to the health protections provided by the low-level waste rule, would therefore be a major federal action. It would violate the Administrative Procedures Act if Subpart C were to be changed in the context of the present proposed rulemaking, where no analysis for changing Subpart C has been provided. .

IEER therefore strongly recommends that:

- The present rulemaking be stopped.
- A new rulemaking that corresponds to Option 3 should be initiated for significant amounts of DU.

- The possibility that DU will fall into the Greater than Class C category of low level waste should be explicitly included.
- The option of deep geologic disposal should be considered – indeed, given the text of the low-level waste rule as it now stands, this would the normal mode of disposal of significant amounts of DU.
- Performance standards as set forth in Subpart C should be maintained.
- There should be no limit on the period of performance.
- A change in the method by which performance is evaluated could be considered along the lines that are specified in the French high-level waste rule cited above.
- The NRC should ensure that sound and defensible scientific assumptions, methods, and analytical tools are used and that input data represent conditions that might reasonably be expected, or that would put an upper limit to dose calculations.
- The NRC should exercise more oversight over agreement states to ensure that the methods, data, conclusions, analyses, computer models, and parameter values meet at least minimal tests of scientific soundness.

August 12, 2010

Rules and Directives Branch, Chief
Division of Administrative Services
Office of Administration
U.S. Nuclear Regulatory Commission
Mailstop TWB-05-BO1M
Washington, DC 20555-0001

Subject: Report NUREG-1945 draft – NRC2009-0157

My name is Ann Rydalch and I chair the Energy, Natural Resource & Agriculture Policy Committee for the National Foundation for Women Legislators (NFWL), which has headquarters in Washington, DC, and I live in Idaho Falls. NFWL is a non-partisan group of past and current women elected officials such as legislators, governor's, mayors, tribal leaders, county commissioners and Congressional women – a network organized throughout the United States as well as doing work internationally. For 5 years as Com. Chair I have been educating elected officials about the importance of nuclear energy, the nuclear renaissance is real.

This committee has passed numerous resolutions regarding the importance of having a balanced portfolio of energy choices, which include nuclear, and stressing the importance of not relying so heavily on foreign energy sources, and emphasizing the importance of uranium enrichment facilities. We also have passed resolutions regarding the inclusion of nuclear projects in the Loan Guarantee Fund program, which was not included in the beginning, but now Congress has acted to include nuclear projects in that program.

We thank the NRC for the staff's preliminary conclusion that the Eagle Rock Enrichment Facility would have mostly small impacts on the local environment and that AREVA should be issued a license to construct and operate the facility. I urge the NRC to continue to listen to scientific facts and to disregard untruthful scare tactic statements. Statements such as "DOE is giving a 2 billion loan guarantee" – a misleading statement because no money exchanges hands, DOE is not giving AREVA 2 billion dollars; however, by being included in the Loan Guarantee Fund program, AREVA and other companies in that program will be able to possibly receive lower interest rates on their loans from banks etc. It's like the Good Housekeeping seal of approval. Or, another scare statement that building this will cause "further degradation of the habitat for sage grouse". The truth is in the NRC preliminary conclusion "as described in Chapter 4, the environmental impacts of preconstruction and the proposed actions would mostly be small."

Our country is open to legal immigrants that come here for the American dream. Our country is open to legal foreign companies that want to do business in the United States. AREVA is a very experienced and credible company that wants to do business in the U.S.

and surveys show over 70% of the public throughout the nation support nuclear energy

As you know, nuclear power currently supplies about 20 percent of the nation's electricity. We have one company that is currently the sole U.S. supplier of low-enriched uranium for nuclear fuel in the U.S., although there are some being built that may provide enrichment services in the future; however, that still leaves an extremely high percent of low-enriched uranium that is being imported from foreign suppliers, imposing reliability risks for the nuclear fuel supply to U.S. nuclear power plants.

National energy policy emphasizes the importance of having a reliable domestic source of enriched uranium for national energy security. The production of enriched uranium at the Eagle Rock Enrichment Facility would be equivalent to about 40 percent of the current and projected demand for enrichment services within the U.S. Thus, still a high percent of current and projected demand for enrichment services left to fulfill.

I encourage you to follow the preliminary recommendation that AREVA be issued a license to construct and operate the Eagle Rock Enrichment Facility here in Bonneville County, Idaho Falls, Idaho, formerly called Eagle Rock Idaho. As Bonneville County celebrates its 100th centennial year in 2011, we find there is a strong historic connection between the French company AREVA and Bonneville County. Our County, Bonneville County, was established Feb. 7, 1911 by the Idaho Legislature and was named after Captain Benjamin Bonneville, a French born officer in the United States Army who was a fur trapper and explorer in the American West and is noted for his expeditions to the Oregon Country and the Great Basin in the 1830's. Now, I understand this historic information is not necessary for scientific deliberations, but it does point out the cultural sensitivity that they have as AREVA has chosen the name of Eagle Rock Enrichment Facility to carry forth that heritage name.

Thank you.

Ann Rydalch, Chair
Energy, Natural Resource & Agriculture Policy Committee
National Foundation for Women Legislators
3824 E. 17th St.
Idaho Falls, ID 83406

CITY OF IDAHO FALLS

Office of the Mayor
City Hall
Idaho Falls, Idaho 83405

Areva Public Hearing Statement - Idaho Falls 8/12/2010

I don't want to take much of your time tonight due you already having heard my comments Monday evening at the Boise public hearing in addition to our conversation we had in my office yesterday afternoon.

As Mayor of Idaho Falls along with members of the City Council, we are elected to represent the interest of our City to the best of our abilities. So when a proposed project like the one we are here tonight discussing comes before us, we must do our due diligence in making sure that project will be in the best interest of our community. It is my opinion that we have tried to turn over every stone to make sure Areva is right for our region.

We have met with several mayors in eastern Idaho and received their endorsement of the project. Myself along with several community leaders have **personally** met with representatives from Areva numerous times, from Idaho Falls to the Areva headquarters in Bethesda Maryland to their corporate office in Paris France.

One of best pieces of evidence I obtained through my personal research regarding potential environmental impacts was when I along with 24 other members of our community visited the city of Pierrelatte France, population of 13,000.

Pierrelatte is next door to the Tricastan George Besse I plant which has been operational for several years. I had the opportunity to personally visit with many city and community leaders as well as speaking with many citizens.

I was able to see firsthand Areva's sustainable development philosophy of protecting the environment. Through this visit I found no evidence of any negative environmental impact on their community. What I saw instead was a vibrant and beautiful city.

I want to go on record one more time stating that I'm personally satisfied with the thoroughness and efforts the NRC has made to this point in time regarding the EIS and endorse that Areva should be licensed to construct the Eagle Rock Enrichment Facility.

P. O. Box 50220 • 308 Constitution Way, Idaho Falls, Idaho 83405 • (208) 612-8235 • Fax (208) 612-8560

EASTERN IDAHO
ECONOMIC DEVELOPMENT
PARTNERS

EIEDP
PO Box 451
Blackfoot, ID 83221

August 12, 2010

To Whom It May Concern:

On behalf of the Eastern Idaho Economic Development Partners (EIEDP) we wish to express support for the AREVA Project. The EIEDP represents a 13-county area surrounding the Eagle Rock Enrichment plant location, which is in the effective immediate impact area for the project. We have issued previous letters of support for the project.

We feel confident that the NRC and AREVA have addressed all necessary safety and environmental concerns in the draft EIS. We urge the NRC to stay on scope and utilize scientific expertise to guide their decisions for issuance of the license and permit for the EREF plant. We feel that the NRC procedures for the licensing process have been very satisfactory, and thank you for your thoroughness.

Sincerely,

Kristen Jensen
Kristen Jensen
Co-Chair, EIEDP

Jolie Turek
Jolie Turek
Co-Chair, EIEDP

Michelle Holt, Lost River Economic Development
PO Box 46, Arco, ID 83213 208-527-3060

Gynii Gilliam, Bannock Development Corporation
1651 Alvin Ricken Dr, Pocatello, ID 83201 208-233-3500

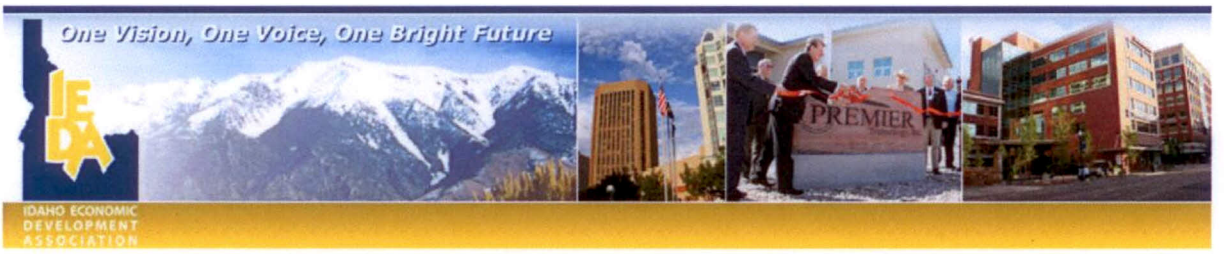
Jolie Turek, Custer Economic Development
PO Box 758, Challis, ID 83226 208-879-6861

Kathy Ray, Four County Alliance of Southeastern Idaho
PO Box 32, Malad, ID 83252 208-317-1827

Kristen Jensen, Great Rift Business Development Organization
550 N Oregon Trail, American Falls, ID 83211 208-226-5931

Kerri Ellis, Clark County Economic Development
PO Box 205, Dubois 83423 208-374-5808

Linda Martin, Grow Idaho Falls
151 N Ridge Ste A, Idaho Falls, ID 83402 208-522-2014



IEDA
1255 W Hwy 39
Blackfoot, ID 83221
www.ieda.biz

August 12, 2010

Nuclear Regulatory Commission,

The Idaho Economic Development Association is grateful for the opportunity to show our support for the AREVA Project. IEDA represents over seventy-five economic development professionals throughout the State. We have supported the AREVA project from its beginning during the site selection phase with the Department of Commerce, in several areas across the state. We supported the legislation which positioned Idaho to ultimately become the site chosen for the project. This was healthy economic legislation which provided for earned benefits for performance, not only for the AREVA project, but *any* company that would present similar investments in Idaho.

We appreciate the NRCs use of scientific expertise to guide the decisions for issuance of the license and permit for the Eagle Rock Enrichment Facility. We feel that the NRC procedures for the licensing process have been very satisfactory, and thank you for your thoroughness.

Sincerely,

Wendi Secrist

Wendi Secrist, President
Idaho Economic Development Association
Association

Jana Chalfant

Jana Chalfant, President Elect
Idaho Economic Development

Just Say No to AREVA
August 12, 2010
Idaho Falls ID

My husband Dennis and I appreciate the opportunity to contribute our thoughts on the Areva project. Thanks to the Snake River Alliance for pressuring you to have these hearings so taxpayers can give you some feedback.

It's easy to understand why some think Areva would be fantastic for Idaho. The $$$$, the jobs in construction, operating, maintenance, cleanup...The lofty ambitions of supporting a nuclear power industry renaissance, and slowing global warming...

However there are many who know the truth about nuclear power - from mining to uranium enrichment and all the steps between- it's dirty, dangerous, and expensive. And we think there's no need for a renaissance at all because there are wiser alternatives in renewable sources.

We propose the following energy efficient strategies to be paid for with the $2 billion loan from the Feds and whatever Idaho is throwing in:

•Buy and install energy-efficient appliances for every Idahoan who needs them-hot water heaters, refrigerators, washers, and dryers.

•Insulate Idaho homes and commercial buildings that are inadequately protected.

•More cash for clunkers.

•Expand renewable energy resource development-wind, solar, geothermal and the grid.

•Build bike paths throughout Idaho communities for everyone to use for commuting to work and to schools, and for recreation. Encourage bike travel by making it safe and enjoyable.

•Get young people involved in energy issues and problem solving by developing an education program that encourages imagination, ingenuity and self sufficiency that are carbon-free and nuclear-free.

Why not? This would be an economic stimulus package that would diversify the population that needs help the most-the unemployed and the middle class. This could have a positive and profound effect locally, and globally.

•It would create jobs for Americans-the appliance manufacturers, who buy raw materials like steel; and delivery and installation jobs, and jobs to extract recyclable materials from old appliances.

•Jobs where they make insulation, and jobs to install the insulation.

•Jobs in manufacturing fuel efficient cars, trucks and buses.

•Jobs in city planning to route bike paths throughout their communities and jobs for road and path construction, as well as materials for that expansion.

•Jobs in bike manufacturing.

•Jobs in renewable energy technologies.

•There are abundant health benefits and energy savings with this plan. A healthier population because of the option to pedal around town. A broader cross section of Americans who will find work in

their communities, and the cost of energy at home and fuel for their vehicles will be reined in. Stress levels will drop improving everyone's attitudes and outlook.

•Other states and countries would admire Idaho for its' truly progressive focus on the short and long term goals. Idaho could become a model for sustainable living. Tourism would increase just because people want to see progress to believe it especially in such a scenic state.

In addition to these straightforward suggestions for energy savings, job creation, health benefits, and collective attitude adjustment, there are a wealth of other positive side effects for Idaho if Areva does not build a uranium enriching plant here:

•We would not loan a foreign company/country billions of dollars we can put to better use ourselves. And we don't have to give them more if they underestimate costs or have technical problems they don't expect during construction. Or pay for cleanup after they take their profits and return to France.

•Idaho would not be responsible for the safety and cost of storing tons of depleted uranium waiting patiently 'til the day comes when someone figures out what to do with it and where to put it.

•Idahoans would not have to share the roads with thousands of loads of toxic and dangerous materials.

•Idahoans won't have to worry about living downwind of smoke or emissions should there be a fire or terrorist attack at the facility.

•We don't have to endanger any wildlife because of habitat destruction, or lose productive farmland.

•We can rest assured radioactive materials will not be "lost in the system" and used for making bombs since enrichment is a proliferable technology.

•The Snake River aquifer would be protected from further contamination.

The advantages of not financing Areva are huge. US energy policy must shift its attention and resources to the development of carbon-free and nuclear-free alternatives that are faster, cheaper and less risky. We can think outside the "dirty, dangerous and expensive nuclear power box". We have the legacy of the nuclear age to learn from. We have fouled our nest, it's simply time to let go of nuclear business as usual. Areva is a dinosaur. The future is now.

Submitted by:
Margo & Dennis Proksa
5192 West Old Highway 91
Pocatello, ID 83204

James D. Vincent
P.O. Box 1162
Blackfoot, ID 83221
208-520-3553

My name is Jim Vincent. My wife, Kitty and I have written over 100 articles for national sporting magazines. These magazines include, Gray's Sporting Journal, Fly Fisherman Magazine, Field and Stream, Outdoor Life, and Harris Publications. My wife and I also owned a business in Idaho Falls called RIO Products, intl. We manufacture fly lines, leaders and tippet with world wide sales. Currently RIO employs sixty people. WeI sold the business in 2005 to Far Bank Enterprises, who also own Sage Rods and Redington . I would like to thank the staff of the Nuclear Regulatory Commission for holding this hearing and hearing my testimony.

I am not against Nuclear Energy if it can be made sustainable and safety concerns are met. However, as of yet, I am not convinced we need this Areva Enrichment plant.

When I was going to college, in the early 1970's, I did uranium exploration in the Moab and Monticello, Utah area, for Asarco Corporation utilizing core holes and gamma probes. My deceased father, John D. Vincent was a well known mining Engineer, recipient of the AIME man of the year award in 1971. I believe he did consulting for Areva from 1969 through 1974. He was called out of retirement to advise on the accident at three mile island near Harrisburg, PA. He was not radical anti-nuclear energy, if anything he was pro nuclear energy. At the time of the three mile island incident, he told me he had two main concerns about nuclear energy. They were long term waste disposal and worldwide Reserves or uranium ore. I don't believe these concerns have diminished in thirty years.

Since the two U.S de-conversion facilities are not operational, and if they do become operational they will first process already existing depleted uranium waste from 60 plus years of existing waste, from the 100 plus nuclear energy producing plants here in the US, the time-line for the removal of the on site storage of Uranium hexafluoride DUF6 from Idaho is in doubt. I have a problem with storing this waste above ground and possible leaching of contaminants into the aquifer for our state.

I also am particularly concerned with the amount of water that will be used in the enrichment process, and the safety of the filtration system that will be utilized for the evaporation process. I live down wind and down stream of the proposed Areva Plant and I have concerns about my safety. As a reference,

In July of 2008 Areva had two accidents in France. One was a burst pipe at a plant in Romans-sur-isere, southeastern France by an Areva subsidiary. The pipe had been broken for several years. Jean-Pierre Gros, Areva's head of combustion said between 120 and 750 grams of uranium had leaked. Another accident happened at the Tricastin site near the historic southeast city of Avignon. A liquid containing traces of unenriched uranium leaked from a factory run by Areva subsidiary Soctri spilling from a reservoir that overflowed. The leak flowed into the ground and into two rivers the Gaffiere and Lauzon.

French Authorities banned the consumption of well water and watering of crops as well as swimming, fishing and water sports.

France's nuclear Safety Authority classified the Tricastin accident as a 1 on a scale of 0 to 7. However, there were 86 level-1 incidents in France in 2007 and 114 in 2006

I have here a photograph from page 17 of public Areva document "Nunavut Mining Symposium Iqaluit April 2009 by Peter Wollenberg ARC" about one of their operations in Canada. Even though this is a color photograph, I printed this with a black and white printer. I would like to submit this to the commission. I believe the conclusions are obvious, if this is supposed to be a secure Areva facility for radioactive core storage. My 5 year old grandson could scale this six foot cyclone fence.

My research has found known estimates world wide of Uranium somewhere between 50 years on the low end, and 100 years on the optimistic side. Why would we utilize a technology that costs literally billions of dollars to implement with public tax dollars for a loan guarantee and Idaho tax incentives for a limited time technology. Even 100 years is not very long as far as reserves.

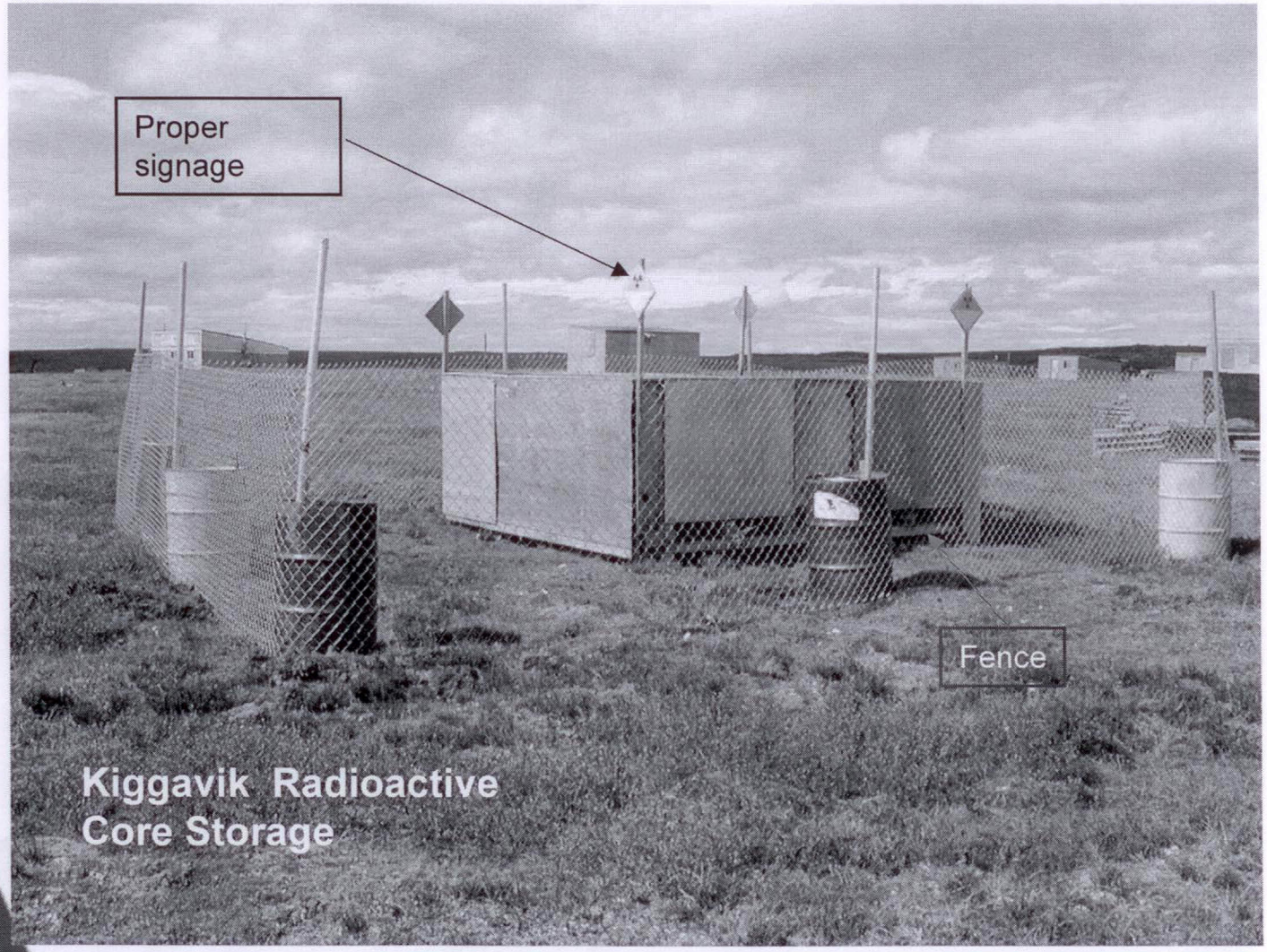
My other main concern is personal. I live to hunt and fish in Idaho. It is the main reason I love this state. I believe my opportunities to hunt and fish will be severely limited if 1000 new residents are brought into Idaho Falls to work at this facility. There will be many less opportunities to successfully apply for big game permits, and my favorite rivers will be impacted with crowding. Already, there is talk of limiting the number of boats on the South Fork of the Snake river. I also believe the EIS does not fully take into account the impact on Antelope, Sage grouse and birds of prey. I am not the only resident who values Idaho outdoor activities and sustained controlled growth for a quality of Idaho life. I believe many of my neighbors also live in Idaho Falls for the same reasons.

In conclusion,The EIS (4-136) states that French company Areva's enriched product will be shipped overseas as is their profits, I do not see how this proposed project will make my country have more domestic control over our needs for enriched fuel. The EIS specifies that the numbers of license requests for new enriched uranium (draft EIS,1-6) are in excess of the need for new enriched uranium. Given, the potential for accidents is considerable, I would like to urge the Nuclear Regulatory Commission to deny this permit. I would also like to thank the commission for hearing my testimony.

James D. Vincent

(2) & (3)

Management of drill core



Jean
From: ~~John~~ McKay [redacted]
Subject: **Areva**
Date: August 12, 2010 4:04:25 PM MDT
[redacted]

I am Jean McKay, a resident of Idaho Falls. Thank you for allowing me a couple of minutes to comment on the proposed uranium-enrichment plant proposed for Idaho Falls to be built by the French-owned company Areva.

I ask the Nuclear Regulatory Commission to include in the report of potential environmental impacts the record of Areva in France, and to delay any exemption or approval until after such a study has been completed and revealed to the public.

#1 In July 18, 2008, a Paris newspaper revealed: The Ecology Minister of France announced a 2nd leak in a subsidiary of Areva due to a broken pipe. The 1st leak occurred on July 7, 2008, and residents of the area were told not to drink the water, or to swim in, to irrigate crops with the waters of nearby rivers.

The Nuclear Safety Authority (ASN) of France cited a series of "frauds and human negligence" and ordered the closure of the Areva subsidiary. Possible legal action was being considered because of "repeated leaks" during 2007 in the site's waste water evacuation system.

#2 In South Carolina, reported August 2008, an experimental mixed-oxide fuel assembly was removed from the plant of Duke Energy/Areva Catawaba facility because of "potentially hazardous physical changes."

In addition, Areva's plans in the U.S. to build EPR (Evolutionary Power Reactors) at various sites - including Idaho - have created controversy. In France, as of August 2008, the construction of these Evolutionary Power Reactors by Areva have been delayed by technical and quality-control problems.

Again, I urge the NRC to include a study and evaluation of these reported problems in its EIS, and to report them to the public before any exemption or approval is considered.

Thank you.

Jean McKay
335 Westmoreland Dr.
Idaho Falls, Idaho 83402

To the NRC August 12, 2010

Subject: Draft EIS for the Eagle Rock Enrichment Facility

Dear Sir or Madam:

Good evening. My name is Beth Sellers. As a member of the general public currently living in Idaho Falls, Idaho, I want to thank you for the extensive effort the Nuclear Regulatory Commission undergoes to ensure that the citizens of the United States are informed on commercial nuclear power endeavors. Through your extensive attention to Science and your outreach processes, the NRC demonstrates a sincere effort to collect and listen to our concerns. The United States is all the better for your work and as we read just about every day in the international news, the NRC is providing THE example of how to regulate the nuclear power industry as other countries create their own nuclear power industries. Your leadership is setting a high bar for the rest of the world to follow.

The purpose of the NES facility has been made clear in the draft EIS. It is in the best interest of the citizens of the United States that we continue to support and increase the percentage of electricity generated by commercial nuclear power. It is a proven emission-free source of electricity. Furthermore, its increased use will enhance our national energy security. The sooner we become self-sufficient in fulfilling our energy needs, the more secure our nation will remain in these turbulent times.

The draft EIS covered a wide range of impacts. They are the standard impacts that are seen with any major construction activity. The areas of most concern to me include water resources, ecological and cultural resources, waste management, and the transportation impacts to those of us in Idaho Falls. The NRC analysis was comprehensive and the impacts were noted to be small in the majority of the impacts analyzed. For those environmental impacts noted to be in the moderate to large range, the mitigations detailed by the applicant were deemed acceptable.

The fact that Areva Enrichment Services selected Idaho Falls as the location to construct and operate this enrichment facility speaks to the comfort level this community has with all things nuclear. There are decades of nuclear energy R&D&D experience at the INL. Locating a commercial capability next door makes logical sense, as the synergy that will co-exist in the professional arena will be a natural outcome and provide benefit to all involved.

I support the NRC staff recommendation that due to small environmental impacts from the Eagle Rock Enrichment Facility, Areva should be issued a license to construct and operate the facility.

Thank you,

Beth Sellers

Beth Sellers

NRC FORM 659
(4-2010)

U.S. NUCLEAR REGULATORY COMMISSION

Category 3

NRC PUBLIC MEETING FEEDBACK

Meeting Date: 08/12/2010

Meeting Title: AREVA Eagle Draft EIS Public Meeting

In order to better serve the public, we need to hear from the meeting participants. Please take a few minutes to fill out this feedback form and return it to NRC.

1. How did you hear about this meeting?

☐ NRC Web Page ☐ NRC Mailing List ☐ Newspaper

☐ Radio/TV ☑ Other Union Hall

		Yes	No (Please explain below)	Somewhat
2.	Were you able to find supporting information prior to the meeting?	☑	☐	☐
3.	Did the meeting achieve its stated purpose?	☑	☐	☐
4.	Has this meeting helped you with your understanding of the topic?	☑	☐	☐
5.	Were the meeting starting time, duration, and location reasonably convenient?	☑	☐	☐
6.	Were you given sufficient opportunity to ask questions or express your views?	☑	☐	☐
7.	Are you satisfied overall with the NRC staff who participated in the meeting?	☑	☐	☐

COMMENTS OR SUGGESTIONS: Thank you for answering these questions.

Arava is good for the community and eco money just because for the simple fact that it is cheaper on the electricity and it produces more jobs for Idaho.

Continue Comments on the reverse.

OPTIONAL

Name Paul Fullmer Organization Local 808 Carpenters

Telephone No. _____ E-Mail _____ ☐ *Check here if you would like a member of NRC staff to contact you.*

OMB NO. 3150-0197 Expires: 08/31/2012

Public Protection Notification: If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

Please fold on the dotted lines with Business Reply side out, tape the bottom, and mail back to the NRC.

NRC FORM 659
(4-2010)

U.S. NUCLEAR REGULATORY COMMISSION

Category 3

NRC PUBLIC MEETING FEEDBACK

Meeting Date: 08/12/2010

Meeting Title: AREVA Eagle Draft EIS Public Meeting

In order to better serve the public, we need to hear from the meeting participants. Please take a few minutes to fill out this feedback form and return it to NRC.

1. How did you hear about this meeting?

☐ NRC Web Page ☐ NRC Mailing List ☐ Newspaper
☐ Radio/TV ☐ Other Union Hall

		Yes	No (Please explain below)	Somewhat (Please explain below)
2.	Were you able to find supporting information prior to the meeting?	☑	☐	☐
3.	Did the meeting achieve its stated purpose?	☑	☐	☐
4.	Has this meeting helped you with your understanding of the topic?	☑	☐	☐
5.	Were the meeting starting time, duration, and location reasonably convenient?	☑	☐	☐
6.	Were you given sufficient opportunity to ask questions or express your views?	☑	☐	☐
7.	Are you satisfied overall with the NRC staff who participated in the meeting?	☑	☐	☐

COMMENTS OR SUGGESTIONS: Thank you for answering these questions.

We need this for the community Areva is good for us all

Continue Comments on the reverse.

OPTIONAL

Name Matt Gerber Organization Local 808 Carpenters

Telephone No. _____ E-Mail _____ ☐ *Check here if you would like a member of NRC staff to contact you.*

OMB NO. 3150-0197 Expires: 08/31/2012

Public Protection Notification: If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

Please fold on the dotted lines with Business Reply side out, tape the bottom, and mail back to the NRC.

NRC FORM 659
(4-2010)

U.S. NUCLEAR REGULATORY COMMISSION

NRC PUBLIC MEETING FEEDBACK

Category 3

Meeting Date: 08/12/2010

Meeting Title: AREVA Eagle Draft EIS Public Meeting

In order to better serve the public, we need to hear from the meeting participants. Please take a few minutes to fill out this feedback form and return it to NRC.

1. How did you hear about this meeting?

☐ NRC Web Page ☐ NRC Mailing List ☒ Newspaper
☒ Radio/TV ☐ Other _____

		Yes	No (Please explain below)	Somewhat
2.	Were you able to find supporting information prior to the meeting?	☒	☐	☐
3.	Did the meeting achieve its stated purpose?	☒	☐	☐
4.	Has this meeting helped you with your understanding of the topic?	☒	☐	☐
5.	Were the meeting starting time, duration, and location reasonably convenient?	☒	☐	☐
6.	Were you given sufficient opportunity to ask questions or express your views?	☒	☐	☐
7.	Are you satisfied overall with the NRC staff who participated in the meeting?	☒	☐	☐

COMMENTS OR SUGGESTIONS:

Thank you for answering these questions.

I Support The EIS

Continue Comments on the reverse. ➪

OPTIONAL

Name _____ Organization _____

Telephone No. _____ E-Mail _____ ☐ *Check here if you would like a member of NRC staff to contact you.*

OMB NO. 3150-0197 Expires: 08/31/2012

Public Protection Notification: If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

Please fold on the dotted lines with Business Reply side out, tape the bottom, and mail back to the NRC.

NRC FORM 659
(4-2010)

U.S. NUCLEAR REGULATORY COMMISSION

Category 3

NRC PUBLIC MEETING FEEDBACK

Meeting Date: 08/12/2010

Meeting Title: AREVA Eagle Draft EIS Public Meeting NRC-2009-0187

In order to better serve the public, we need to hear from the meeting participants. Please take a few minutes to fill out this feedback form and return it to NRC.

1. How did you hear about this meeting?

☐ NRC Web Page ☐ NRC Mailing List ☐ Newspaper
☐ Radio/TV ☒ Other Other Employees

		Yes	No	Somewhat (Please explain below)
2.	Were you able to find supporting information prior to the meeting?	☒	☐	☐
3.	Did the meeting achieve its stated purpose?	☒	☐	☐
4.	Has this meeting helped you with your understanding of the topic?	☒	☐	☐
5.	Were the meeting starting time, duration, and location reasonably convenient?	☒	☐	☐
6.	Were you given sufficient opportunity to ask questions or express your views?	☐	☐	☐
7.	Are you satisfied overall with the NRC staff who participated in the meeting?	☒	☐	☐

COMMENTS OR SUGGESTIONS: Thank you for answering these questions.

I am supportive of the AREVA project but would like to have heard more from the NRC on how waste from the process will be stored and ultimately disposed of.

Continue Comments on the reverse. ➪

OPTIONAL

Name _____ Organization _____

Telephone No. _____ E-Mail _____ ☐ *Check here if you would like a member of NRC staff to contact you.*

OMB NO. 3150-0197 Expires: 08/31/2012

Public Protection Notification: If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

Please fold on the dotted lines with Business Reply side out, tape the bottom, and mail back to the NRC.

NRC FORM 659
(4-2010)

U.S. NUCLEAR REGULATORY COMMISSION

Category 3

NRC PUBLIC MEETING FEEDBACK

Meeting Date: 08/12/2010

Meeting Title: AREVA Eagle Draft EIS Public Meeting

In order to better serve the public, we need to hear from the meeting participants. Please take a few minutes to fill out this feedback form and return it to NRC.

1. How did you hear about this meeting?

☐ NRC Web Page ☐ NRC Mailing List ☐ Newspaper

☐ Radio/TV ☐ Other _____

		Yes	No (Please explain below)	Somewhat (Please explain below)
2.	Were you able to find supporting information prior to the meeting?	☒	☐	☐
3.	Did the meeting achieve its stated purpose?	☐	☐	☐
4.	Has this meeting helped you with your understanding of the topic?	☐	☐	☐
5.	Were the meeting starting time, duration, and location reasonably convenient?	☐	☐	☐
6.	Were you given sufficient opportunity to ask questions or express your views?	☐	☐	☐
7.	Are you satisfied overall with the NRC staff who participated in the meeting?	☐	☐	☐

COMMENTS OR SUGGESTIONS: Thank you for answering these questions.

1. This plant will add to our export, which is desperately needed.
2. The nuclear industry has a great safety record. Then there is oil drilling, coal mining etc.
3. This plant will result (in time) in a well trained work force with skills that can be transferred to other jobs.

Continue Comments on the reverse. ➪

OPTIONAL

Name RALPH REEVES Organization None - retired

Telephone No. (208) 684-2389 E-Mail _____ ☐ *Check here if you would like a member of NRC staff to contact you.*

OMB NO. 3150-0197 Expires: 08/31/2012

Public Protection Notification: If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

Please fold on the dotted lines with Business Reply side out, tape the bottom, and mail back to the NRC.

COMMENTS OR SUGGESTIONS: (Continued)

4. This plant will likely foster support establishments which will likely result in exports and well trained workers.

I urge that this uranium low enrichment plant be approved.

UNITED STATES
NUCLEAR REGULATORY
COMMISSION
WASHINGTON DC 20555-0001

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS MAIL PERMIT NO. 12904 WASHINGTON DC

POSTAGE WILL BE PAID BY U.S. NUCLEAR REGULATORY COMMISSION

STEPHEN LEMONT
MAIL STOP T8-J3
OFFICE OF FEDERAL AND STATE MATERIALS AND ENV MGMT PROGRAMS
U S NUCLEAR REGULATORY COMMISSION
WASHINGTON DC 20555-0001