UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
U. S. DEPARTMENT OF ENERGY)	Docket No. 63-001-HLW
(High-Level Waste Repository))	ASLBP No. 09-892-HLW-CAB04

NRC STAFF RESPONSE TO U.S. DEPARTMENT OF ENERGY MOTION TO DISMISS NEVADA SAFETY CONTENTIONS 149, 161, 162 AND 130

INTRODUCTION

On March 24, 2011, the Atomic Safety and Licensing Board (Board) issued an Order dismissing four legal contentions in the above-captioned proceeding. Order (Dismissing Contentions), dated March 24, 2011 (Order) (unpublished).¹ With respect to the remaining Phase I contentions identified by the parties in the joint stipulation,² the Board stated that the Department of Energy (DOE) or the U.S. Nuclear Regulatory Commission (NRC) staff (Staff) "should timely file dispositive motions seeking appropriate relief, such as a motion to dismiss a

¹ This ruling was based on the Board's December 14, 2010, Memorandum and Order deciding Phase I Legal Issues and denying rule waiver petitions. *U.S. Dep't of Energy* (High-Level Waste), LBP-10-22, 72 NRC __ (slip op.) (Dec. 14, 2010) (LBP-10-22).

² U.S. Department of Energy's Joint Report in Response to CAB Orders of December 8, 2010 and LBP-10-22, dated January 21, 2011 (Joint Report). In addition, consistent with LBP-10-22, the parties filed separate differing positions on the contentions with which they could not fully agree. *See, e.g.,* U.S. Department of Energy's Statement of Additional Views on the Contentions Affected by the CAB Order of December 14, 2010, dated January 21, 2011 (DOE Differing Position); State of Nevada's Separate Comments Regarding the Impact of LBP-10-22 on NEV-SAFETY-130, 149, 161, and 162, dated January 21, 2011 (Nevada Differing Position); Differing Position of the NRC Staff in Response to LBP-10-22, dated January 21, 2011 (Staff Differing Position).

contention in whole or in part." Id. at 2.3

On April 8, 2011, DOE filed "U.S. Department of Energy's Motion to Dismiss Nevada Safety Contentions 149, 161, 162, and 130" (Motion) and on April 16, 2011, filed a supplement to its Motion. See Supplement to U.S. Department of Energy's Motion to Dismiss Nevada Safety Contentions 149, 161, 162, and 130, dated April 16, 2011 (Supplement). For the reasons set forth below, the Board should dismiss NEV-SAFETY-149 and -161, and dismiss NEV-SAFETY-130 and -162 in part.

DISCUSSION

A. NEV-SAFETY-149

NEV-SAFETY-149 alleges that DOE excludes deviations from repository design or errors in waste emplacement from events considered in the total system performance assessment (TSPA) on purely legal grounds that are unexplained and violate 10 C.F.R. §§ 63.114(d), 63.114(e), 63.114(f) and 63.342. See State of Nevada Petition to Intervene as a Full Party, dated December 19, 2008, at 783 (Nevada Petition). DOE argues that the resolution of Legal Issue 7 in LBP-10-22 renders NEV-SAFETY-149 moot, citing the Board's observation

³ The Board noted that the time period prescribed in 10 C.F.R. § 2.323(a) would not apply to such motions. Order at 2 n.8.

⁴ DOE's Supplement addresses the 10 C.F.R. § 2.323(b) requirement that a motion "include a certification by the attorney or representative of the moving party that the movant has made a sincere effort to contact other parties in the proceeding and resolve the issue(s) raised in the motion, and that the movant's efforts to resolve the issue(s) have been unsuccessful." The Staff does not object to DOE's Motion as supplemented because, as DOE indicated in its supplement, the parties previously conferred regarding the effects of LBP-10-22 on admitted contentions and DOE certified that it had conferred with Nevada and the Staff regarding the Motion. See Supplement at 1-2.

that Nevada's concern arose from a statement that DOE corrected prior to filing its license application. Motion at 2 & n.4 (citing LBP-10-22 at 19-20).

Nevada acknowledged DOE's changes to its LA, but iterated its legal argument that DOE could not demonstrate that DOE's exclusion of deviations from repository design or errors in waste emplacement complies with the regulatory requirements. See State of Nevada's Reply to DOE's Answer to Nevada's Petition to Intervene as a Full Party, dated February 24, 2009, at 654 (Nevada Reply to DOE Answer); see State of Nevada Reply Brief on Phase I Legal Issues, filed January 6, 2010, at 26. Nevada argues that NEV-SAFETY-149 is not moot because the contention "challenged the technical sufficiency of DOE's claim," and asserts that it is challenging DOE's conclusion that deviations from repository design or errors in waste emplacement are unlikely, and may therefore be excluded from analysis. State of Nevada Reply Brief on Phase I Legal Issues, dated January 6, 2010, at 25 n.6 (citing Nevada Reply to DOE Answer at 653-654).

In LBP-10-22, the Board ruled that under 10 C.F.R. § 63.114, DOE may rely upon its quality assurance (QA) program as a basis to categorically exclude from consideration in the TSPA potential deviation from repository design or errors in waste emplacement. LBP-10-22 at 19. Therefore, inasmuch as NEV-SAFETY-149 claims that the effects of the QA program cannot be considered in determining the probability and consequences of deviations from repository design or errors in waste emplacement, it should be dismissed. See Staff Differing Views at 3.

Further, Nevada's assertion that NEV-SAFETY-149 is admissible as a factual contention is not persuasive. See Nevada Differing Views at 2. The contention lacks any factual support as to why DOE's reliance on its QA program to exclude deviations from repository design or errors in waste emplacement from the TSPA is flawed. See State of Nevada Reply Brief on

Phase I Legal Issues, dated January 6, 2010, at 26 ("[T]he pertinent question is whether, as a *legal* matter, DOE is entitled to ignore" deviations from repository design or errors in waste emplacement (emphasis in original)). Therefore, the Board's rejection of the legal basis of NEV-SAFETY-149 renders this legal contention moot. Accordingly, the contention should be dismissed.

B. NEV-SAFETY-161

NEV-SAFETY-161 claims that DOE violates requirements for a multiple barrier system because its proposed barrier system's safety depends on a single element --the drip shield-- and if the drip shields are not in place, the entire system will fail. *See* Nevada Petition at 857, 859. Nevada claims that the Board's ruling in LBP-10-22 does not preclude NEV-SAFETY-161 from being litigated as a factual contention, arguing that the Board did not resolve "the related factual question of whether DOE has adequately demonstrated that the multibarrier protection system is not 'wholly dependent on a single barrier." *See* Nevada Differing Position at 6 (quoting LBP-10-22 at 23 (internal quotations omitted)). DOE argues that this contention should be dismissed because it is predicated on the absence or failure of all the drip shields, a legal question addressed by the Board's ruling on Legal Issue 8, and that no factual questions remain. *See* Motion at 3.

DOE is correct. The Board resolved Legal Issue 8 by concluding that there "is no regulatory requirement for DOE to assume and then to analyze the complete failure of any barrier in the absence of a finding that such a failure is within the bounds of probability or consequence that must be analyzed in the performance assessment." LBP-10-22 at 21. The Board noted that "'[t]he emphasis should not be on the isolated performance of" an individual barrier such as the drip shield, and that DOE's proposed barrier system would be evaluated as an integrated whole. See LBP-10-22 at 22 (quoting Implementation of a Dose Standard After

10,000 Years, 74 Fed. Reg. 10,811, 10,826 (March 13, 2009) (internal citation omitted)). Accordingly, inasmuch as NEV-SAFETY-161 claims that DOE is required to analyze the no drip shield scenario and presumes drip shield failure, this contention should be dismissed consistent with LBP-10-22. See Staff Differing Position at 2.

In addition, DOE correctly argues that the contention lacks a factual basis for whether DOE adequately demonstrated that its system is not wholly dependent on a single barrier. See Motion at 3. The assertions and bases provided in the contention focus on the no drip shield scenario, an analysis precluded by the Board's ruling. See Nevada Petition at 857-59; LBP-10-22 at 21. Therefore, because the contention is predicated on the no drip shield scenario, the factual issue is precluded by the Board's resolution of Legal Issue 8, and the contention should be dismissed.

C. NEV-SAFETY-162

NEV-SAFETY-162 claims that DOE's plan to install drip shields about 100 hundred years from now "cannot be justified as safe because if installation of the drip shields proves to be defective or impossible it will be too late to assure safety by alternative means." Nevada Petition at 861. Nevada argues that this contention (1) does not ask DOE to postulate a no drip shield scenario; (2) raises a factual issue as to whether installing the drip shields after emplacement of wastes "is a safe concept;" and (3) would be moot if DOE agreed to install the drip shields earlier. See Nevada Differing Views at 6, 9. Nevada suggests that the Board postpone a decision on the admissibility of this contention or postpone its litigation until after related contentions are litigated. *Id.* at 8-9 ("especially but not limited to NEV-SAFETY-130").

DOE argues that NEV-SAFETY-162 should be dismissed consistent with the Board's resolution of Legal Issue 10. See Motion at 4 (citing LBP-10-22 at 28). DOE acknowledges that although the Board noted that Legal Issue 10 does not preclude Nevada from raising factual

issues regarding "DOE's ability to install the drip shields," the contention does not raise this factual issue. See DOE Additional Views at 5 (citing LBP-10-22 at 5). DOE states that the factual question framed by Nevada is predicated on the assumption that drip shield installation is defective or impossible, and that the Board ruled DOE is not required to consider the absence or complete failure of all drip shields. See id.; LBP-10-22 at 21.

NEV-SAFETY-162 should be dismissed in part. The Board ruled that it is not impossible, "as a matter of law, for the Commission to make the finding required by 10 C.F.R. § 63.31(a)(2) in light of DOE's drip shield installation plan," and Nevada is "jump[ing] the gun by invoking standards that do not apply at the construction authorization stage." LBP-10-22 at 27-28. Therefore, in as much as NEV-SAFETY-162 argues that the Commission cannot, as a matter of law, make the required regulatory findings in light of DOE's installation plan, it should be dismissed. See Staff Differing Views at 2-3.

Nevada, however, is permitted to raise factual issues concerning DOE's ability to install the drip shields under other admitted contentions. LBP-10-22 at 29; *see also* U.S. Department of Energy Consolidated Reply Brief on Phase I Legal Issue Safety Contentions, dated January 6, 2010, at 42 (recognizing that DOE's ability to meet its commitments to install drip shields is a factual question and if the legal issue is resolved in favor of DOE, compliance of DOE's drip shield installation plan with the regulations is an issue that remains for litigation).

NEV-SAFETY-162 points to additional Nevada contentions, including NEV-SAFETY-161 and -130, for the proposition that concerns regarding installation and safety of the drip shields are well founded. *See* Nevada Petition at 862; Nevada Differing Position at 8.5 While, as

 $^{^{\}rm 5}$ NEV-SAFETY-162 also discusses retrieval and references NEV-SAFETY-134, Retrieval or (continued. . .)

discussed above, the issues raised in NEV-SAFETY-161 are precluded by the Board's resolution of Legal Issue 8, factual issues regarding DOE's ability to install the drip shields will be addressed under NEV-SAFETY-130, consistent with LBP-10-22. *See* LBP-10-22 at 21, 29. Because this contention is predicated on resolution of factual issues in other contentions, a factual question remains regarding whether DOE's plan is safe. Accordingly, NEV-SAFETY-162 should be dismissed in part.

D. NEV-SAFETY-130

NEV-SAFETY-130 asserts that installation of the drip shields cannot be assumed because DOE did not identify the features, events and processes (FEPs) that could prevent their installation, and therefore, the contribution of the drip shields should be ignored in the TSPA or the no drip shield scenario should be considered. See Nevada Petition at 701. Nevada distinguishes NEV-SAFETY-130 from NEV-SAFETY-161 and -162, arguing that it does not invoke the multiple barrier requirement or require an analysis that postulates the absence of drip shields in order to assess whether DOE's system is wholly dependent on a single barrier, and does not raise safety problems associated with the concept that drip shields will be installed after emplacement. See Nevada Differing Position at 5. Nevada claims instead that NEV-SAFETY-130 provides a factual basis for the proposition that DOE has not shown

(...continued)

Alternate Storage, and NEV-SAFETY-168, Retrieval Practicability. Nevada Petition at 862. Nevada, however, in its reply to DOE stated the contention "challenges DOE's drip shield concept, not the absence of retrieval plans." State of Nevada's Reply to DOE's Answer to Nevada's Petition to Intervene as a Full Party, dated February 24, 2009, at 693.

⁶ To the extent that NEV-SAFETY-130 is interpreted to mean that DOE is required to analyze the complete failure of all drip shields, that issue may not be raised; that issue was rejected on legal grounds. See Motion at 5 (citing LBP-10-22 at 21).

reasonable assurance that the drip shields can be designed and installed as planned. See id. at 5.

DOE argues that NEV-SAFETY-130 should be dismissed because it presumes the absence of drip shields, which DOE is not required to consider in accordance with the Board's resolution of Legal Issue 8. See Motion at 5 (citing LBP-10-22 at 21). DOE also argues that it is not required "to make a case for something in the construction authorization stage that it will have to make in a later stage and that, thus, 'is not required by the regulations.'" *Id.* (quoting LBP-10-11 at 29).

NEV-SAFETY-130 should be dismissed in part. The Board stated, and DOE acknowledged, that Nevada can "raise factual issues concerning DOE's ability to install drip shields" LBP-10-22 at 29 (citing DOE Legal Issue 10 Brief at 6 n.14 (identifying NEV-SAFETY-133, 142, 148 and 130; describing NEV-SAFETY-130 as questioning whether drip shields could be designed, fabricated and installed as planned)). NEV-SAFETY-130 includes information regarding the factual question concerning DOE's ability to install the drip shields. See, e.g., Nevada Differing View at 5; Nevada Petition at 705, 707. Accordingly, because NEV-SAFETY-130 raises a factual issue that remains after LBP-10-22, NEV-SAFETY-130 should be dismissed in part.

CONCLUSION

The Board should grant the Motion in part and dismiss NEV-SAFETY-149, and -161 in their entirety and NEV-SAFETY-130 and -162 in part.

Respectfully submitted,

/Signed (electronically) by/

Jessica A. Bielecki
Counsel for NRC Staff
U.S. Nuclear Regulatory Commission
Office of the General Counsel
Mail Stop O-15D21
Washington, DC 20555-0001
(301) 415-1391
Jessica.Bielecki@nrc.gov

/Executed in accord with 10 C.F.R. § 2.340(d)/

Christopher C. Hair
Counsel for NRC Staff
U.S. Nuclear Regulatory Commission
Office of the General Counsel
Mail Stop O-15D21
Washington, DC 20555-0001
(301) 415-2174
Christopher.Hair@nrc.gov

Dated at Rockville, Maryland this 18th day of April, 2011

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY LICENSING BOARD

In the Matter of)	
U. S. DEPARTMENT OF ENERGY)	Docket No. 63-001-HLW
(High-Level Waste Repository))	ASLBP No. 09-892-HLW-CAB04

CERTIFICATE OF SERVICE

I hereby certify that copies of the "NRC STAFF RESPONSE TO U.S. DEPARTMENT OF ENERGY MOTION TO DISMISS NEVADA SAFETY CONTENTIONS 149, 161, 162 AND 130" in the above-captioned proceeding have been served on the following persons this 18th day of April, 2011, by Electronic Information Exchange.

CAB 04

Thomas S. Moore, Chairman
Paul S. Ryerson
Richard E. Wardwell
Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

E-mail: tsm2@nrc.gov psr1@nrc.gov rew@nrc.gov

Office of the Secretary ATTN: Docketing and Service Mail Stop: O-16C1

U.S. Nuclear Regulatory Commission

Washington, DC 20555

E-mail: <u>HEARINGDOCKET@nrc.gov</u>

Office of Commission Appellate Adjudication ocaamail@nrc.gov

Charles J. Fitzpatrick, Esq. John W. Lawrence, Esq. Egan, Fitzpatrick, Malsch & Lawrence PLLC 1777 N.E. Loop 410, Suite 600 San Antonio, TX 78217

E-mail: cfitzpatrick@nuclearlawyer.com
jlawrence@nuclearlawyer.com

Martin G. Malsch, Esq. Egan, Fitzpatrick & Malsch, PLLC 1750 K Street, N.W. Suite 350 Washington, DC 20006 E-mail: mmalsch@nuclearlawyer.com

Brian W. Hembacher, Esq.
Deputy Attorney General
California Attorney General's Office
300 South Spring Street
Los Angeles, CA 90013
E-mail: brian.hembacher@doj.ca.gov

Timothy E. Sullivan, Esq.
Deputy Attorney General
California Department of Justice
1515 Clay Street. 20th FIr.
P.O. Box 70550
Oakland, CA 94612-0550

E-mail: timothy.sullivan@doj.ca.gov

Kevin W. Bell, Esq. Senior Staff Counsel California Energy Commission 1516 9th Street Sacramento, CA 95814

E-mail: kwbell@energy.state.ca.us

Alan I. Robbins, Esq.
Debra D. Roby, Esq.
Jennings Strouss & Salmon, PLC
1350 I Street, NW Suite 810
Washington, DC 20005-3305
E-mail: arobbins@jsslaw.com
droby@jsslaw.com

Donald J. Silverman, Esq.
Thomas A. Schmutz, Esq.
Thomas C. Poindexter, Esq.
Paul J. Zaffuts, Esq.
Alex S. Polonsky, Esq.
Lewis Csedrik, Esq.
Raphael P. Kuyler, Esq.
Morgan, Lewis & Bockius LLP
1111 Pennsylvania Avenue, N.W.
Washington, DC 20004

E-mail: dsilverman@morganlewis.com tschmutz@morganlewis.com tpoindexter@morganlewis.com pzaffuts@morganlewis.com apolonsky@morganlewis.com lcsedrik@morganlewis.com rkuyler@morganlewis.com

Malachy R. Murphy, Esq. 18160 Cottonwood Rd. #265 Sunriver, OR 97707

E-mail: mrmurphy@chamberscable.com

Susan L. Durbin, Esq. Deputy Attorney General 1300 I Street P.O. Box 944255 Sacramento, CA 94244-2550

E-mail: susan.durbin@doj.ca.gov

Martha S. Crosland, Esq.
Angela M. Kordyak, Esq.
Nicholas P. DiNunzio
James Bennett McRae, Esq.
Sean A. Lev
U.S. Department of Energy
Office of the General Counsel
1000 Independence Avenue, S.W.
Washington, DC 20585
E-mail: martha.crosland@hq.doe.gov

E-mail: martha.crosland@hq.doe.gov angela.kordyak@hq.doe.gov nick.dinunzio@rw.doe.gov ben.mcrae@hq.doe.gov Sean.Lev@hq.doe.gov

George W. Hellstrom
U.S. Department of Energy
Office of General Counsel
1551 Hillshire Drive
Las Vegas, NV 89134-6321
E-Mail: george.hellstrom@ymp.gov

Robert M. Andersen Akerman Senterfitt LLP 750 9th N.W., Suite 750 Washington, DC 20001

E-mail: robert.andersen@akerman.com

Frank A. Putzu
Naval Sea Systems Command Nuclear
Propulsion Program
1333 Isaac Hull Avenue, S.E.
Washington Navy Yard, Building 197
Washington, DC 20376
E-mail: frank.putzu@navy.mil

John M. Peebles
Darcie L. Houck
Fredericks Peebles & Morgan LLP
1001 Second Street
Sacramento, CA 95814
E-mail: jpeebles@ndnlaw.com

dhouck@ndnlaw.com

Shane Thin Elk
Fredericks Peebles & Morgan, LLP
3610 North 163rd Plaza
Omaha, Nebraska 68116
E-mail: sthinelk@ndnlaw.com

Ellen C. Ginsberg
Michael A. Bauser
Anne W. Cottingham
Nuclear Energy Institute, Inc.
1776 I Street, N.W., Suite 400
Washington, DC 20006
E-mail: ecg@nei.org

mab@nei.org awc@nei.org

David A. Repka William A. Horin Rachel Miras-Wilson Winston & Strawn LLP 1700 K Street N.W. Washington, DC 20006

E-mail: drepka@winston.com whorin@winston.com rwilson@winston.com

Jay E. Silberg Timothy J.V. Walsh Pillsbury Winthrop Shaw Pittman LLP 2300 N Street, N.W. Washington, DC 20037-1122

E-mail: jay.silberg@pillsburylaw.com timothy.walsh@pillsburylaw.com

Gregory L. James 712 Owens Gorge Road HC 79, Box 1I Mammoth Lakes, California 93546

Email: gljames@earthlink.net

Arthur J. Harrington Godfrey & Kahn, S.C. 780 N. Water Street Milwaukee, WI 53202 E-mail: aharring@gklaw.com

L-maii. <u>anamiy@gkiaw.com</u>

Steven A. Heinzen
Douglas M. Poland
Hannah L. Renfro
Godfrey & Kahn, S.C.
One East Main Street, Suite 500
P.O. Box 2719
Madison, WI 53701-2719
E-mail: <a href="mailto:sheinzen@gklaw.com/dpoland@gklaw.com/hrenfro@gklaw.com/hrenfr

Robert F. List, Esq.
Jennifer A. Gores, Esq.
Armstrong Teasdale LLP
1975 Village Center Circle, Suite 140
Las Vegas, NV 89134-6237
E-mail: rlist@armstrongteasdale.com
igores@armstrongteasdale.com

Diane Curran
Harmon, Curran, Spielberg, & Eisenberg,
L.L.P.
1726 M Street N.W., Suite 600
Washington, DC 20036
E-mail: dcurran@harmoncurran.com

Ian Zabarte, Board Member Native Community Action Council P.O. Box 140 Baker, NV 89311

E-mail: mrizabarte@gmail.com

Richard Sears
District Attorney No. 5489

White Pine County District Attorney's Office

311 Murry Street Ely, NV 89301

E-mail: rwsears@me.com

Donald P. Irwin
Michael R. Shebelskie
Kelly L. Faglioni
Hunton & Williams LLP
Riverfront Plaza, East Tower
951 East Byrd Street
Richmond, VA 23219-4074

E-mail: dirwin@hunton.com mshebelskie@hunton.com kfaqlioni@hunton.com

Curtis G. Berkey Scott W. Williams Rovianne A. Leigh Alexander, Berkey, Williams, & Weathers LLP 2030 Addison Street, Suite 410 Berkley, CA 94704

E-mail: cberkey@abwwlaw.com
swilliams@abwwlaw.com
rleigh@abwwlaw.com

Bret O. Whipple 1100 South Tenth Street Las Vegas, Nevada 89104

E-mail: bretwhipple@nomademail.com

Gregory Barlow P.O. Box 60 Pioche, Nevada 89043

E-mail: lcda@lcturbonet.com

Thomas R. Gottshall S. Ross Shealy Haynesworth Sinkler Boyd, PA 1201 Main Street, Suite 2200 Post Office Box 11889 Columbia, SC 29211-1889 E-mail: tgottshall@hsblawfirm.com

E-mail: tgottshall@hsblawfirm.com rshealy@hsblawfirm.com

Connie Simkins
P.O. Box 1068
Caliente, Nevada 89008
E-mail: jcciac@co.lincoln.nv.us

Kenneth P. Woodington
Davidson & Lindemann, P.A.
1611 Devonshire Drive
P.O. Box 8568
Columbia, SC 29202
E-mail: kwoodington@dml-law.com

Dr. Mike Baughman Intertech Services Corporation P.O. Box 2008 Carson City, Nevada 89702 E-mail: bigboff@aol.com Michael Berger
Robert S. Hanna
Attorney for the County of Inyo
233 East Carrillo Street Suite B
Santa Barbara, California 93101
E-mail: mberger@bsglaw.net
rshanna@bsglaw.net

Don L. Keskey Public Law Resource Center PLLC 505 N. Capitol Avenue Lansing, MI 48933

E-mail: donkeskey@publiclawresourcenter.com

Philip R. Mahowald Prairie Island Indian Community 5636 Sturgeon Lake Road Welch, MN 55089

E-mail: pmahowald@piic.org

James Bradford Ramsay
National Association of Regulatory Utility
Commissioners
1101 Vermont Avenue NW, Suite 200
Washington, DC 20005
E-mail: jramsay@naruc.org

/Signed (electronically) by/

Jessica A. Bielecki
Counsel for the NRC Staff
U.S. Nuclear Regulatory Commission
Office of the General Counsel
Mail Stop O-15D21
Washington, DC 20555-0001
(301) 415-1391
Jessica.Blelecki@nrc.gov