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March 20, 2017

The Honorable Kristine Svinicki
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: SECY-17-0006 "Interim Staff Guidance on Evaluating Chemical Exposures at Fuel Cycle Facilities"

Project Number: 689

Dear Chairman Svinicki:

On behalf of the Nuclear Energy Institute's (NEI)¹ fuel cycle facility members, I am writing regarding the draft interim staff guidance (ISG) document, "Guidance for the Evaluation of Acute Chemical Exposures and Proposed Quantitative Standards." The ISG and its history are described in SECY-17-0006, "Interim Staff Guidance on Evaluating Chemical Exposures at Fuel Cycle Facilities."² After a careful review of SECY-17-0006 and the associated enclosures, we continue to believe that the development of meaningful quantitative standards for potential dermal and ocular exposures to the chemicals used at fuel cycle facilities is impractical and unnecessary from a safety standpoint.³ In addition, we continue to have concerns with the

¹ Nuclear Energy Institute (NEI) is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry.

² "Interim Staff Guidance on Evaluating Chemical Exposures at Fuel Cycle Facilities," SECY-17-0006 (January 11, 2017) ("SECY-17-0006").

³ See Letter from J.R. Schlueter (NEI) to M.G. Bailey (NRC), "Dermal and Ocular Quantitative Exposure Standard – Current Industry Programs are Adequate and NRC Proposed Approach is Impractical, Unnecessary, and Constitutes an Unanalyzed Backfit," March 26, 2014 ("March 2014 Letter"); Letter from J.R. Schlueter (NEI) to C. Bladey (NRC), "Draft Interim Staff Guidance ZZ, Revision 0 Guidance for the Evaluation of Acute Chemical

staff's resolution of the backfitting issues associated with the ISG. Given these concerns, which are discussed below in greater detail, we respectfully request that the Commission disapprove issuance of the final ISG and direct the NRC staff to close this issue, with no further action required by the staff or licensees.

Standard Development is Unnecessary and Impractical

After working in earnest with the NRC staff for more than eight years to resolve this issue, it is clear that development of quantitative standards for dermal and ocular exposure to chemicals is unnecessary from a safety standpoint. Specifically, in the context of fuel cycle facilities, quantitative worker standards for dermal and ocular chemical exposures are not needed to evaluate exposure events for compliance with Part 70 requirements and would not result in meaningful changes to site-specific safety programs, which are designed and implemented to prevent and mitigate chemical exposures via all pathways. In fact, after its recent audits of fuel cycle programs, the NRC staff concluded "that there are no immediate safety concerns related to dermal and ocular exposures at the facilities audited"⁴ and that the agency has "reasonable assurance that the licensees meet the requirements in 10 CFR 70.61 with respect to the evaluation of acute chemical exposures."⁵

In addition to being unnecessary from a safety standpoint, development of meaningful quantitative standards for purposes of evaluating exposures to multiple chemicals and chemical mixtures used at fuel cycle facilities is a difficult, impractical endeavor. Although several licensees have – at the staff's urging and for various reasons – developed quantitative standards for dermal and ocular exposures to a very limited number of chemicals (*e.g.*, HF and nitric acid); scientifically-credible, chemical-specific, quantitative exposure standards for all affected chemicals, as well as chemical mixtures, used by fuel cycle facilities do not exist. To our knowledge, no organization prominent in developing or enforcing limits on chemical exposures has developed such standards.⁶ As explained in our March 2014 Letter, the Occupational Safety and Health Organization (OSHA) has considered developing such

Exposures and Proposed Quantitative Standards (80 Fed. Reg. 11,692 and 80 Fed. Reg. 21,274); NRC Docket 2015-0044," June 30, 2015 ("June 2015 Letter").

⁴ SECY-17-0006, pg. 7.

⁵ *Id.*

⁶ This includes agencies and organizations, such as the Occupational Safety and Health Organization (OSHA), the Environmental Protection Agency (EPA), the U.S. Chemical Safety Board, the Centers for Disease Control (CDC), the National Institute for Occupational Safety and Health (NIOSH), the Agency for Toxic Substances and Disease Registry (ATSDR), the American Conference of Governmental Industrial Hygienists

standards for specific chemicals, but has declined to do so, finding the development of such exposure limits to be impractical.⁷

Given the impracticality of developing meaningful dermal and ocular chemical exposure standards, as well as the lack of any pressing safety basis warranting continued expenditure of licensee and NRC resources on this activity, we respectfully request that the Commission disapprove the staff's plans to finalize the ISG and direct the staff to discontinue its efforts in this area.

Backfit Issues

We also have continuing concerns regarding the resolution of the backfitting issues associated with the ISG. While not conceding that its interpretation of section 70.65(b)(7) to require development of quantitative standards for dermal and ocular chemical exposures is different from the position taken when originally approving licensees' ISA summaries,⁸ the staff now proposes that this interpretation will only be applied to future applicants, including license renewals and amendments seeking approval of new processes. Thus, the staff concludes, "any imposition of the ISG by the NRC staff would constitute forward-fitting, not backfitting."⁹ We are not aware of any agency guidance that specifically addresses "forward-fitting," however the concept was described in a 2010 letter from NRC's General Counsel to NEI's General Counsel.¹⁰ On the subject of "forward-fitting" the NRC 2010 Letter states:

(ACGIH), American Industrial Hygiene Association (AIHA), the American Society of Safety Engineers (ASSE), the International System Safety Society (ISSS), UK Health and Safety Executive (HSE).

⁷ March 2014 Letter, Attachment at pg. 6-7.

⁸ NEI's March 2014 Letter included several specific examples where the NRC staff, consistent with the guidance provided in the relevant Standard Review Plan, explicitly approved the use of airborne concentration limits to meet the requirements of section 70.65(b)(7) during the initial reviews of ISA summaries, and did not require creation of quantitative dermal or ocular exposure standards at that time. NEI March 2014 Letter, Attachment at pg. 8-9.

⁹ SECY-17-0006, Enclosure 2 at pg. 5. SECY-17-0006 states that the staff intends to apply the ISG "only to future licensing actions," and that one such category of future licensing actions will include decisions on applications for license renewal. SECY-17-0006, at pg. 8. Although not clarified in the paper, we presume that the staff does not intend to retroactively apply the new interpretation articulated in the ISG to licensees that have already prepared and filed applications for license renewal, or other relevant license amendments, pursuant to the existing Standard Review Plan.

¹⁰ See generally, Letter from S.G. Burns (NRC) to E.C. Ginsberg (NEI), July 14, 2010 ("NRC 2010 Letter").

If a licensee voluntarily seeks to change its licensing basis . . . then the NRC may condition its approval of the proposed change upon a licensee agreement to adopt new or revised guidance. Such action *will not be deemed to be backfitting if*: (i) the new or revised guidance relates directly to the licensee's voluntary request; and (ii) the specific subject matter of the new or revised guidance is an essential consideration in the NRC staff's determination of the acceptability of the licensee's voluntary request.¹¹

Given the impracticality of developing meaningful quantitative standards for dermal and ocular chemical exposures of workers, and the lack of a safety basis for requiring such standards, it is difficult to understand how imposition of the ISG on future applicants will satisfy the two-part test described in the 2010 letter, particularly the "essential consideration" prong. Rather, the explanation provided in SECY-17-0006 and the associated enclosures seems to *presume* that imposition of the staff's changed interpretation of section 70.65(b)(7) will relate directly to, and will be "an essential consideration in the NRC staff's determination of the acceptability" of, voluntary renewal or amendment requests submitted by licensees in the future.

Further, SECY-17-0006 states that because the ISG contains guidance for the NRC staff, it cannot raise backfitting concerns.¹² This idea is inconsistent with the Commission's previous statements regarding the importance of agency guidance in implementing the agency's backfitting rules,¹³ as well as the agency's internal guidance regarding the importance of documents like Standard Review Plans in establishing staff positions.¹⁴ For example, the

¹¹ NRC 2010 Letter, at FN 2 (emphasis added).

¹² SECY-17-0006, at pg. 8 "The ISG contains guidance for the NRC staff, and changes in internal staff guidance are not matters for which applicants or licensees have backfit protection under 10 CFR 70.76(a)(1)."

¹³ The Commission has long-recognized the importance of subjecting new or different interpretations of its regulatory requirements to the analytical requirements of the backfitting rule. For example, in the 1985 final rule amending § 50.109, the Commission stated:

Many of the most important changes in plant design, construction, operation, organization, and training have been put in place at a level of detail that is expressed in staff guidance documents which interpret the intent of broad, generally worked regulations. The NRC has determined that the correct focus for backfit regulation is the establishment of effective management controls on existing staff processes for the interpretation of regulations that are known to result in valuable upgrades in industry safety performance. Thus, the Commission opts to adopt a management process not only for the promulgation of regulations as backfit instruments, but also for the lower tier staff review and inspection processes known to result in reactor plant changes.

"Revisions of Backfitting Process for Power Reactors," Final Rule, 50 Fed. Reg. 38,097, 38,101 (September 20, 1985)(emphasis added).

¹⁴ See "Office of Nuclear Material Safety and Safeguards Policy and Procedures Letter 1-82, 10 CFR Part 70 Backfit Guidance," Rev. 1 (Oct. 2005), at Appendix 4, pg. 1.

NRC's internal guidance describing implementation of section 70.76 is clear that Standard Review Plans:

[D]elineate the scope and depth of staff review of licensee submittals associated with various review activities. They are definitive NRC staff explanations of measures which, if taken, will satisfy the requirements of the more generally stated, legally binding body of regulations, primarily found in Title 10 of the Code of Federal Regulations (CFR).¹⁵

This guidance goes on to explain that:

[U]sing acceptance criteria more stringent than those contained explicitly in SRPs or proposing licensee actions more stringent than or in addition to those specified explicitly in SRPs may be considered backfits if: (1) the facility has a current license, and (2) NRC's approval of the license means compliance with the SRP.¹⁶

Thus, categorical statements that internal staff guidance documents cannot raise backfitting concerns are incorrect, and can result in failure to identify and properly analyze backfits. Indeed, we believe this is precisely what has taken place here – *i.e.*, several licensees have developed quantitative standards at the staff's urging and the staff has maintained that its change in position with respect to the need for such standards is not a backfit. Now, the staff points to the adoption of such standards by licensees as support for the idea that the position articulated in the ISG need only be applied to future applicants (and thus, does not constitute backfitting). This circular approach to negotiating the requirements in section 70.76 undermines the efficacy of the agency's backfitting program.

In sum, fuel cycle licensees continue to operate their facilities safely and in a manner that is protective of the health and safety of both the public and employees. There is no clear safety basis to justify requiring these licensees to develop quantitative exposure standards for dermal and ocular chemical exposures for workers – an exercise that organizations charged with developing and enforcing chemical exposure standards have declined to undertake. Therefore, the Commission should disapprove issuance of the ISG.

¹⁵ *Id.*

¹⁶ *Id.*

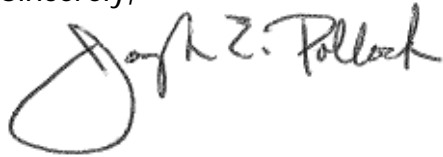
The Honorable Kristine Svinicki

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If you have any questions regarding this matter, please contact myself or Janet Schlueter at jrs@nei.org or 202-739-8098.

Sincerely,

A handwritten signature in black ink that reads "Joseph E. Pollock". The signature is written in a cursive style with a large, looped initial "J" and a distinct "E" and "P".

Joseph E. Pollock

c: The Honorable Steven Burns, Commissioner
The Honorable Jeffrey Baran, Commissioner
Ms. Annette Vietti-Cook, SECY, NRC
Margaret M. Doane, Esq., OGC, NRC
Ms. Catherine Haney, RII, NRC
Mr. Mark Dapas, NMSS, NRC

CHAIRMAN Resource

From: POLLOCK, Joseph <jep@nei.org>
Sent: Monday, March 20, 2017 4:01 PM
To: CHAIRMAN Resource
Cc: CMRBurns Resource; CMRBARAN Resource; Vietti-Cook, Annette; Doane, Margaret; Haney, Catherine; Dapas, Marc
Subject: [External_Sender] Interim Staff Guidance on Evaluating Chemical Exposures at Fuel Cycle Facilities
Attachments: 03-20-17_NRC_Industry Comments on SECY-2017-0006.pdf

THE ATTACHMENT CONTAINS THE COMPLETE CONTENTS OF THE LETTER

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Sincerely,

Joseph E Pollock
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and Interim Chief Nuclear Officer

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[3] See Letter from J.R. Schlueter (NEI) to M.G. Bailey (NRC), "Dermal and Ocular Quantitative Exposure Standard – Current Industry Programs are Adequate and NRC Proposed Approach is Impractical, Unnecessary, and Constitutes an Unanalyzed Backfit," March 26, 2014 ("March 2014 Letter"); Letter from J.R. Schlueter (NEI) to C. Bladey (NRC), "Draft Interim Staff Guidance ZZ, Revision 0 Guidance for the Evaluation of Acute Chemical Exposures and Proposed Quantitative Standards (80 Fed. Reg. 11,692 and 80 Fed. Reg. 21,274); NRC Docket 2015-0044," June 30, 2015 ("June 2015 Letter").