



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

July 27, 2020

IA-20-040

Dr. Melinda P. Krahenbuhl  
[NOTE: HOME ADDRESS DELETED  
UNDER 10 CFR 2.390]

SUBJECT: CONFIRMATORY ORDER RELATED TO NRC INVESTIGATION REPORTS  
4-2016-022 AND 4-2017-023

Dear Dr. Krahenbuhl:

The enclosed Confirmatory Order (CO) is being issued to you as a result of a successful Alternative Dispute Resolution (ADR) mediation session. The CO documents commitments that were made as part of a settlement agreement between you and the U.S. Nuclear Regulatory Commission (NRC) concerning violations of NRC requirements discussed in Order IA-19-035 dated March 16, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20064F133).

The March 16, 2020, Order suspended NRC License No. SOP-70678-1, which was issued to you pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55 and prohibited your involvement in NRC-licensed activities for a period of 3 years. The Order also provided you the opportunity to request a hearing within 30 days of Order issuance, or request ADR mediation with the NRC in an attempt to resolve any disagreements regarding the violations, appropriate enforcement actions, and appropriate corrective actions.

In response to the Order, you requested ADR. An ADR mediation session arranged through Cornell University's Institute on Conflict Resolution was held in a virtual meeting setting with you, your representatives, and the NRC on June 22, 2020. The elements of a preliminary agreement were formulated and agreed to by you and the NRC at the mediation session. Consistent with the purposes of ADR, you and the NRC acknowledged that the mediation session was not for the purposes of reaching any conclusions regarding any facts or circumstances discussed in the March 16, 2020, Order.

During the ADR mediation, you agreed that a CO would be issued to confirm the commitments outlined in the preliminary agreement. As evidenced by your signed "Consent and Hearing Waiver Form" (Enclosure 2) dated July 23, 2020, you further agreed to the issuance of this CO.

The NRC is satisfied that its concerns will be addressed by making your commitments legally binding through the issuance of this CO. Accordingly, consistent with Section 2.7.8 of its Enforcement Manual, the NRC is withdrawing the March 16, 2020, Order prohibiting your involvement in NRC-licensed activities for 3 years. Subject to the satisfactory completion of the additional corrective actions you have committed to take, the NRC will take no further action concerning the violations discussed in the Order.

Pursuant to Section 223 of the Atomic Energy Act of 1954, as amended, any person who willfully violates, attempts to violate, or conspires to violate, any provision of this CO shall be subject to criminal prosecution as set forth in that section. Violation of this CO may also subject the person to civil monetary penalties.

Apart from the actions required by the enclosed CO, you are not required to respond to this letter. However, if you choose to provide a response, please provide it to me within 30 days. Your response should be addressed to the Director, Office of Enforcement, and a separate copy provided to the NRC Document Control Desk by either (1) U.S. Postal Service at U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001 or (2) direct mailing to U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738. Should you have questions concerning the enclosed Confirmatory Order, you may contact Mr. Travis Tate, Chief, Non-Power Production and Utilization Facilities Oversight Branch at (301) 415-3901, or Mr. Juan Peralta, Chief, Enforcement Branch at (301) 287-9510.

In accordance with 10 CFR § 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, along with its enclosures, will be made available electronically for public inspection in the NRC Public Document Room or from ADAMS, accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. The CO will be published in the *Federal Register*. The NRC also publishes COs on its Web site under Significant Enforcement Actions at <http://www.nrc.gov/about-nrc/regulatory/enforcement.html>.

Sincerely,

George A. Wilson, Director  
Office of Enforcement

Enclosures:

1. Confirmatory Order
2. Consent and Hearing Waiver

SUBJECT: CONFIRMATORY ORDER RELATED TO NRC INVESTIGATION REPORTS  
4-2016-022 AND 4-2017-023; DATED: JULY 27, 2020

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**ADAMS Package: ML20197A100**  
**FRN Accession No.: ML20197A112**  
**Cover Letter and Order Accession No.: ML20195B129**  
**Consent and Waiver Accession No.: ML20206K927**

OFFICE	OE:ES	NRR:EC	OE:BC	NRR:BC	NRR:DD
NAME	RFretz	BHughes	JPeralta	TTate	BSmith
DATE	07/24/2020	06/29/2020	07/02/2020	07/01/2020	07/06/2020
OFFICE	OGC	NRR:D	OE:D		
NAME	TSteinfeldt (NLO)	BSmith <i>for MShams</i>	GWilson		
DATE	07/09/2020	07/23/2020	07/27/2020		

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application for a 10 CFR Part 55 reactor operator license. A second investigation (OI Case No. 4-2017-023) at Reed was opened on March 28, 2017, to determine whether the Director willfully provided incomplete or inaccurate information to the NRC regarding an application for a 10 CFR Part 55 license (a senior reactor operator license). In a letter dated November 20, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20044E056), the NRC notified Dr. Krahenbuhl of the apparent violations identified during the investigations.

On January 10, 2020, the NRC held a predecisional enforcement conference (PEC) with Dr. Krahenbuhl and her representative at its headquarters facility in Rockville, Maryland, to obtain additional information regarding the apparent violations. On March 16, 2020, the NRC issued Order IA-19-035 (ADAMS Accession No. ML20064F133) suspending Dr. Krahenbuhl's senior reactor operator license (License No. SOP-70678-1) issued pursuant to 10 CFR Part 55 and prohibiting Dr. Krahenbuhl from any involvement in NRC-licensed activities for a period of 3 years. The Order also provided her the opportunity to request a hearing within 30 days of Order issuance or request ADR mediation with the NRC in an effort to resolve any disputes regarding the violations, appropriate enforcement actions, and appropriate corrective actions.

In response to the Order, Dr. Krahenbuhl requested the use of ADR mediation. On June 22, 2020, the NRC, Dr. Krahenbuhl, and her representatives participated in a virtual ADR session that was mediated by a professional mediator, arranged through Cornell University's Institute on Conflict Resolution. The ADR process is one in which a neutral mediator, with no decision-making authority, assists the parties in reaching an agreement on resolving any differences regarding the dispute. This CO is issued pursuant to the agreement reached during the June 22, 2020, ADR mediation session.

### III.

During the ADR session, Dr. Krahenbuhl and the NRC reached a preliminary settlement agreement. The elements of the agreement include the following:

The NRC and Dr. Melinda Krahenbuhl agreed that violations of NRC requirements associated with reactor operator licensing occurred during the 2015 and 2016 time frame. The NRC and Dr. Melinda Krahenbuhl also agreed that it is vitally important that all information provided to the NRC be complete and accurate, and that integrity in relationships with regulatory staff is essential to maintaining public health and safety when engaging in NRC-regulated activities.

The NRC acknowledges that Dr. Melinda Krahenbuhl was instrumental in the development of corrective actions taken by Reed College that addressed many of the NRC's concerns raised in the March 16, 2020, Order (ADAMS Accession No. ML20055F671) prior to her departure from Reed.

The NRC and Dr. Melinda Krahenbuhl acknowledged that the terms and conditions agreed to during the mediation are not binding on either party until memorialized in a CO issued by the NRC to Dr. Melinda Krahenbuhl relating to this matter.

The additional commitments made in the preliminary settlement agreement, as signed by both parties, consist of the following terms and conditions:

A. Dr. Krahenbuhl will prepare and complete a presentation and newsletter article on a personal case study regarding topics such as the importance of complete and accurate information and integrity in relationships with regulatory staff. During the presentations given at the industry forums, Dr. Krahenbuhl will honestly answer questions about what she failed to do and the impact that this had on carrying out her responsibilities.

1. By September 30, 2020, Dr. Krahenbuhl will submit a draft of the presentation and article to the Director, Division of Advanced Reactors and Non-power Production and Utilization Facilities, for review.

2. Within 15 calendar days of the NRC's receipt of the presentation and article submitted by Dr. Krahenbuhl, the NRC will provide its comments, if any, to Dr. Krahenbuhl.

3. Within 15 calendar days after receiving the NRC's comments, Dr. Krahenbuhl will submit the presentation and article for consideration per paragraph A.4.

4. Dr. Krahenbuhl will submit the approved paper for publication to two of the organizations shown below and give the personal case study presentation at two of the following organizations or industry forums (two articles and two presentations). The intent of the personal case study presentation is that it would be given within 1 year from the date of the CO:

- American Nuclear Society (ANS Quarterly Meeting)
- Health Physics Society

- Women in Nuclear (WIN)
- TRTR Annual Conference
- ANSI medical
- NRC's Annual Regulatory Information Conference (RIC)

If any of the forums listed above do not allow Dr. Krahenbuhl to present, Dr. Krahenbuhl will notify the Director, Office of Enforcement, with a proposed substitute.

- B. Dr. Krahenbuhl will undertake a study and submit recommendations to the appropriate American National Standards Institute (ANSI)/American Nuclear Society (ANS) (sub)committee to enhance guidance on standards associated with the selection and training of personnel for research reactors (e.g., ANSI/ANS-15.4). This study may be conducted in cooperation with other industry colleagues familiar with this topic.
1. Dr. Krahenbuhl will submit a draft of the recommendations to the Director, Division of Advanced Reactors and Non-power Production and Utilization Facilities, for review, at a date to be determined. The NRC and Dr. Krahenbuhl agreed subsequent to the ADR mediation session that the draft recommendations would be provided for NRC review on August 14, 2020.
  2. Within 15 calendar days of the NRC's receipt of the recommendations submitted by Dr. Krahenbuhl, the NRC will provide its comments, if any, to Dr. Krahenbuhl.

3. After receiving the NRC's comments, Dr. Krahenbuhl will submit the recommendations to the appropriate ANSI/ANS (sub)committee for consideration this year.

C. Within 30 days of issuance of the CO, Dr. Krahenbuhl agrees to hire an executive coach, with demonstrated experience in this field, who will provide objective feedback on her interactions, thought processes, blind spots and strategic decision-making. Dr. Krahenbuhl agrees to retain the services of the executive coach for a period of 12 months. Within 6 months, Dr. Krahenbuhl agrees to submit a report outlining the lessons learned from the executive coach and provide a summary of the feedback provided to Dr. Krahenbuhl to the Director, Division of Advanced Reactors and Non-power Production and Utilization Facilities. Dr. Krahenbuhl agrees to submit a second report outlining the lessons learned after the 12-month period has ended.

D. Dr. Krahenbuhl agrees that she will refrain from applying for positions with an NRC licensee holding a Non-power Research or Test Reactor license, or an Operating Power Reactor license, for a period of 1 year, beginning March 16, 2020.

The NRC is satisfied that its concerns will be addressed by making the commitments described above legally binding through the issuance of this CO. Accordingly, consistent with Section 2.7.8 of its Enforcement Manual, the NRC is withdrawing the March 16, 2020, Order prohibiting Dr. Krahenbuhl's involvement in NRC-licensed activities for 3 years. Subject to the satisfactory completion of the corrective actions described in Section V below, the NRC will take no further action concerning the violations discussed in the March 16, 2020, Order.

Additionally, as part of its deliberations and consistent with the philosophy of the Enforcement Policy, Section 3.3, "Violations Identified Because of Previous Enforcement Action," the NRC will consider enforcement discretion for violations with similar root causes that occur prior to or during implementation of the corrective actions specified in this CO.

On July 23, 2020, Dr. Melinda Krahenbuhl consented to issuing this CO with the commitments, as described in Section V below. Dr. Krahenbuhl further agreed that this CO is to be effective upon issuance, the agreement memorialized in this CO settles the matter between the parties, and that she has waived her right to a hearing.

#### IV.

I find that Dr. Melinda Krahenbuhl's actions completed, as described in Section III above, combined with the commitments as set forth in Section V, are acceptable and necessary, and conclude that with these commitments the public health and safety are reasonably assured. In view of the foregoing, I have determined that public health and safety require that Dr. Melinda Krahenbuhl's commitments be confirmed by this CO. Based on the above and Dr. Krahenbuhl's consent, this CO is effective upon issuance.

By no later than thirty (30) days after the completion of the commitments specified in Section V, Dr. Melinda Krahenbuhl is required to notify the NRC in writing and summarize her actions.

V.

Accordingly, pursuant to Sections 104c, 161b, 161i, 161o, 182 and 186 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR 2.202 and 10 CFR Part 50, IT IS HEREBY ORDERED, EFFECTIVE UPON ISSUANCE, THAT:

A. Dr. Krahenbuhl will prepare and complete a presentation and newsletter article on a personal case study regarding topics such as the importance of complete and accurate information and integrity in relationships with regulatory staff. During the presentations given at the industry forums, Dr. Krahenbuhl will honestly answer questions about what she failed to do and the impact that this had on carrying out her responsibilities.

1. By September 30, 2020, Dr. Krahenbuhl will submit a draft of the presentation and article to the Director, Division of Advanced Reactors and Non-power Production and Utilization Facilities, for review.
2. Within 15 calendar days of the NRC's receipt of the presentation and article submitted by Dr. Krahenbuhl, the NRC will provide its comments, if any, to Dr. Krahenbuhl.
3. Within 15 calendar days after receiving the NRC's comments, Dr. Krahenbuhl will submit the presentation and article for consideration per paragraph A.4.

4. Dr. Krahenbuhl will submit the approved article for publication to two of the following organizations, and give the approved personal case study presentation at two of the following organizations' industry forums:

- American Nuclear Society (ANS Quarterly Meeting)
- Health Physics Society
- Women in Nuclear (WIN)
- National Organization of Test, Research, and Training Reactors (TRTR Annual Conference)
- American National Standards Institute (ANSI) Medical Subcommittee
- NRC's Annual Regulatory Information Conference (RIC)

The two personal case study presentations shall be given within 1 year from the date of the CO. If any of the organizations listed above do not allow Dr. Krahenbuhl the opportunity to present the approved personal case study at a sponsored conference, Dr. Krahenbuhl will notify the Director, Office of Enforcement, with a proposed substitute.

B. Dr. Krahenbuhl will undertake a study and submit recommendations to the appropriate ANSI/ANS (sub)committee to enhance guidance on standards associated with the selection and training of personnel for research reactors (e.g., ANSI/ANS-15.4). This study may be conducted in cooperation with other colleagues familiar with this topic.

1. By August 14, 2020, Dr. Krahenbuhl will submit a draft of the recommendations to the Director, Division of Advanced Reactors and Non-power Production and Utilization Facilities, for review.
  2. Within 15 calendar days of the NRC's receipt of the recommendations submitted by Dr. Krahenbuhl, the NRC will provide its comments, if any, to Dr. Krahenbuhl.
  3. After receiving the NRC's comments, Dr. Krahenbuhl will submit the recommendations to the appropriate ANSI/ANS (sub)committee for consideration this year.
- C. Within 30 days of issuance of the CO, Dr. Krahenbuhl agrees to hire an executive coach, with demonstrated experience in this field, who will provide objective feedback on her interactions, thought processes, blind spots, and strategic decision-making. Dr. Krahenbuhl agrees to retain the services of the executive coach for a period of 12 months. Within 6 months of retaining the services of the executive coach, Dr. Krahenbuhl agrees to submit a report outlining the lessons learned from the executive coach to the Director, Division of Advanced Reactors and Non-power Production and Utilization Facilities. Dr. Krahenbuhl agrees to submit a second report outlining the lessons learned after the 12-month period has ended.
- D. Dr. Krahenbuhl agrees that she will refrain from applying for positions with an NRC licensee holding a Non-power Research or Test Reactor license, or an Operating Power Reactor license, for a period of 1 year, beginning March 16, 2020.

The Director, Office of Enforcement, may, in writing, relax, rescind, or withdraw any of the above conditions upon demonstration by Dr. Krahenbuhl of good cause.

## VI.

In accordance with 10 CFR 2.202 and 10 CFR 2.309, any person adversely affected by this CO, other than Dr. Melinda Krahenbuhl, may request a hearing within thirty (30) calendar days of the date of issuance of this CO. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time must be made in writing to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and include a statement of good cause for the extension.

All documents filed in NRC adjudicatory proceedings, including a request for hearing and petition for leave to intervene (petition), any motion or other document filed in the proceeding prior to the submission of a request for hearing or petition to intervene, and documents filed by interested governmental entities that request to participate under 10 CFR 2.315(c), must be filed in accordance with the NRC's E-Filing rule (72 FR 49139; August 28, 2007, as amended at 77 FR 46562; August 3, 2012). The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases to mail copies on electronic storage media. Detailed guidance on making electronic submissions may be found in the Guidance for Electronic Submissions to the NRC and on the NRC Web site at <https://www.nrc.gov/site-help/e-submittals.html>. Participants may not submit paper copies of their filings unless they seek an exemption in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by e-mail at [hearing.docket@nrc.gov](mailto:hearing.docket@nrc.gov), or by telephone at 301-415-1677, to (1) request a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign submissions and access the E-Filing system for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a petition or other adjudicatory document (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the hearing in this proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public Web site at <https://www.nrc.gov/site-help/e-submittals/getting-started.html>. Once a participant has obtained a digital ID certificate and a docket has been created, the participant can then submit adjudicatory documents. Submissions must be in Portable Document Format (PDF). Additional guidance on PDF submissions is available on the NRC's public Web site at <https://www.nrc.gov/site-help/electronic-sub-ref-mat.html>. A filing is considered complete at the time the document is submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an e-mail notice confirming receipt of the document. The E-Filing system also distributes an e-mail notice that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the document on those participants separately. Therefore, applicants and other participants (or their counsel or representative)

must apply for and receive a digital ID certificate before adjudicatory documents are filed so that they can obtain access to the documents via the E-Filing system.

A person filing electronically using the NRC's adjudicatory E-Filing system may seek assistance by contacting the NRC's Electronic Filing Help Desk through the "Contact Us" link located on the NRC's public Web site at <https://www.nrc.gov/site-help/e-submittals.html>, by e-mail to [MSHD.Resource@nrc.gov](mailto:MSHD.Resource@nrc.gov), or by a toll-free call at 1-866-672-7640. The NRC Electronic Filing Help Desk is available between 9 a.m. and 6 p.m., Eastern Time, Monday through Friday, excluding government holidays.

Participants who believe that they have a good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing stating why there is good cause for not filing electronically and requesting authorization to continue to submit documents in paper format. Such filings must be submitted by: (1) first class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemaking and Adjudications Staff; or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, 11555 Rockville Pike, Rockville, Maryland 20852, Attention: Rulemaking and Adjudications Staff. Participants filing adjudicatory documents in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service. A presiding officer, having granted an exemption request from using E-Filing, may require a participant or party to use E-Filing if the presiding officer subsequently determines that the reason for granting the exemption from use of E-Filing no longer exists.

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket which is available to the public at <https://adams.nrc.gov/ehd>, unless excluded pursuant to an order of the Commission or the presiding officer. If you do not have an NRC-issued digital ID certificate as described above, click "cancel" when the link requests certificates and you will be automatically directed to the NRC's electronic hearing dockets where you will be able to access any publicly available documents in a particular hearing docket. Participants are requested not to include personal privacy information, such as social security numbers, home addresses, or personal phone numbers in their filings, unless an NRC regulation or other law requires submission of such information. For example, in some instances, individuals provide home addresses in order to demonstrate proximity to a facility or site. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants are requested not to include copyrighted materials in their submission.

The Commission will issue a notice or order granting or denying a hearing request or intervention petition, designating the issues for any hearing that will be held and designating the Presiding Officer. A notice granting a hearing will be published in the *Federal Register* and served on the parties to the hearing.

If a person other than Dr. Melinda Krahenbuhl requests a hearing, that person shall set forth with particularity the manner in which his or her interest is adversely affected by this CO and shall address the criteria set forth in 10 CFR 2.309(d) and (f).

If a hearing request is granted to a person whose interest is adversely affected, the Commission will issue an order designating the time and place of any hearings. If a hearing is held, the issue to be considered at such hearing shall be whether this CO should be sustained.

In the absence of any request for hearing, or written approval of an extension of time in which to request a hearing, the provisions specified in Section V above shall be final 30 days from the date of this CO without further order or proceedings. If an extension of time for requesting a hearing has been approved, the provisions specified in Section V shall be final when the extension expires if a hearing request has not been received.

For the Nuclear Regulatory Commission

George A Wilson, Director  
Office of Enforcement

Dated this 27<sup>th</sup> day of July 2020