

**RESPONSE TO FREEDOM OF
INFORMATION ACT (FOIA) REQUEST**

2017-0214

1

RESPONSE
TYPE☐

INTERIM

☒

FINAL

REQUESTER:

Stephen Reilly

DATE:

01/12/2017

DESCRIPTION OF REQUESTED RECORDS:

Copy of the National Institute of Standards and Technology's full response to the March 16, 2016 inquiry letter from the House Committee on Oversight and Government Reform ("the Committee") requesting information regarding incidents involving radioactive materials

PART I. -- INFORMATION RELEASED

- ☐ Agency records subject to the request are already available in public ADAMS or on microfiche in the NRC Public Document Room.
- ☒ Agency records subject to the request are enclosed.
- ☐ Records subject to the request that contain information originated by or of interest to another Federal agency have been referred to that agency (see comments section) for a disclosure determination and direct response to you.
- ☐ We are continuing to process your request.
- ☒ See Comments.

PART I.A -- FEES

AMOUNT*

\$

*See Comments for details

☐

You will be billed by NRC for the amount listed.

☐

None. Minimum fee threshold not met.

☐

You will receive a refund for the amount listed.

☐

Fees waived.

PART I.B -- INFORMATION NOT LOCATED OR WITHHELD FROM DISCLOSURE

- ☐ We did not locate any agency records responsive to your request. *Note:* Agencies may treat three discrete categories of law enforcement and national security records as not subject to the FOIA ("exclusions"). 5 U.S.C. 552(c). This is a standard notification given to all requesters; it should not be taken to mean that any excluded records do, or do not, exist.
- ☒ We have withheld certain information pursuant to the FOIA exemptions described, and for the reasons stated, in Part II.
- ☐ Because this is an interim response to your request, you may not appeal at this time. We will notify you of your right to appeal any of the responses we have issued in response to your request when we issue our final determination.
- ☒ You may appeal this final determination within 30 calendar days of the date of this response by sending a letter or email to the FOIA Officer, at U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or FOIA.Resource@nrc.gov. Please be sure to include on your letter or email that it is a "FOIA Appeal."

PART I.C COMMENTS (Use attached Comments continuation page if required)

In conformance with the FOIA Improvement Act of 2016, the NRC is informing you that: (1) you have the right to seek assistance from the NRC's FOIA Public Liaison; (2) you have the right to seek dispute resolution services from the NRC's FOIA Public Liaison or the Office of Government Information Services; and (3) notwithstanding the language in Parts I.B and II.B of this form, you may appeal this final determination within 90 calendar days of the date of this response by sending a letter or email to the FOIA Officer, at U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or FOIA.Resource@nrc.gov. Please be sure to include on your letter or email that it is a "FOIA Appeal."

SIGNATURE - FREEDOM OF INFORMATION ACT OFFICER

for Stephanie Blaney Karen Danesh

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PART II.A -- APPLICABLE EXEMPTIONS

Records subject to the request are being withheld in their entirety or in part under the FOIA exemption(s) as indicated below (5 U.S.C. 552(b)).

- ☐ Exemption 1: The withheld information is properly classified pursuant to an Executive Order protecting national security information.
- ☐ Exemption 2: The withheld information relates solely to the internal personnel rules and practices of NRC.
- ☐ Exemption 3: The withheld information is specifically exempted from public disclosure by the statute indicated.
- ☐ Sections 141-145 of the Atomic Energy Act, which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).
- ☐ Section 147 of the Atomic Energy Act, which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
- ☐ 41 U.S.C. 4702(b), which prohibits the disclosure of contractor proposals, except when incorporated into the contract between the agency and the submitter of the proposal.
- ☐ Exemption 4: The withheld information is a trade secret or confidential commercial or financial information that is being withheld for the reason(s) indicated.
- ☐ The information is considered to be proprietary because it concerns a licensee's or applicant's physical protection or material control and accounting program for special nuclear material pursuant to 10 CFR 2.390(d)(1).
- ☐ The information is considered to be another type of confidential business (proprietary) information.
- ☐ The information was submitted by a foreign source and received in confidence pursuant to 10 CFR 2.390(d)(2).
- ☐ Exemption 5: The withheld information consists of interagency or intraagency records that are normally privileged in civil litigation.
- ☐ Deliberative process privilege.
- ☐ Attorney work product privilege.
- ☐ Attorney-client privilege.
- ☒ Exemption 6: The withheld information from a personnel, medical, or similar file, is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy.
- ☐ Exemption 7: The withheld information consists of records compiled for law enforcement purposes and is being withheld for the reason(s) indicated.
- ☐ (A) Disclosure could reasonably be expected to interfere with an open enforcement proceeding.
- ☐ (C) Disclosure could reasonably be expected to constitute an unwarranted invasion of personal privacy.
- ☐ (D) The information consists of names and other information the disclosure of which could reasonably be expected to reveal identities of confidential sources.
- ☐ (E) Disclosure would reveal techniques and procedures for law enforcement investigations or prosecutions, or guidelines that could reasonably be expected to risk circumvention of the law.
- ☐ (F) Disclosure could reasonably be expected to endanger the life or physical safety of an individual.
- ☐ Other

PART II.B -- DENYING OFFICIALS

In accordance with 10 CFR 9.25(g) and 9.25(h) of the U.S. Nuclear Regulatory Commission regulations, the official(s) listed below have made the determination to withhold certain information responsive to your request.

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL	
			EDO	SECY
Stephanie Blaney	FOIA Officer/OCIO	Cell phone number	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>

Appeals must be made in writing within 30 calendar days of the date of this response by sending a letter or email to the FOIA Officer, at U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or FOIA.Resource@nrc.gov. Please be sure to include on your letter or email that it is a "FOIA Appeal."

From: "Lawyer, Dennis" <Dennis.Lawyer@nrc.gov>
To: "O'Brien, Thomas" <thomas.obrien@nist.gov>
Date: 8/20/2013 2:26:04 PM
Subject: NIST NRC Inspection
Attachments: NIST Inspection Questions.docx

Mr. O'Brien,

I have started to document my inspection. As I wrote things, I had more questions, please see attached.

One area that I am concern is of the heat detectors. Potentially going multiple years without heat detection remote alarm system is definitely a concern. I am sure that I inspected this last year, but am having a difficult time remembering what was told to me. I am thinking I was told of both the heat/smoke detector alarm to security and the fire alarm to the NIST fire department but not certain.

Please see attached list of comments and questions.

Dennis Lawyer
Health Physicist
U.S. Nuclear Regulatory Commission
Division of Nuclear Material Safety
610-337-5366
610-337-5269 (F)

NIST Inspection Questions:

Mr O'Brien,

I am reviewing the events surrounding the heat detector not remotely alarming in the security office and am having additional questions associated with this item.

The basis of your exemption is in a letter dated May 20, 1998, NIST submitted the following to support an exemption of 10 CFR 36.27 (a)

Section 36.27(a) and (b)**Applicable Portion of Requirement**

The radiation room ... must have heat and smoke detectors. ... The sources must become fully shielded if a fire is detected.

Justification for Exemption

The radiation room is provided with a heat detector linked to the central security console in Building 101, Administration. The age of the facility and the interconnectivity of the safety features make it prohibitively expensive to modify to meet this requirement. The signal from a heat-producing situation will alert the NIST Fire Protection Group that will respond quickly. If there is an indication at the room entrance, i.e., lit warning red lights, that a radiation level above normal exists, the responding firemen will stop there and await the arrival of Health Physics. A review by a Captain and others of the Fire Protection Group confirmed the operations/Health Physics determination that the only potential source of ignition in the room is electrical. Combustibles, flammables, and explosives are administratively controlled in the room so that quantities are insufficient to threaten damage to source encapsulations or shield integrity.

1. So installation of the heat detector that alarms in the NIST Fire Station, is not linked to the central security console and is different than stated above. Have you discussed this with your program manager?
2. My understanding is that the original detector was a smoke and heat detector which alarmed in the security office, is this correct?
3. When was the smoke detector installed in the irradiator that sent an alarm to your fire station?
4. Why was this detector not a dual detector for heat and smoke?
5. When was the last check of the combination smoke and heat detector that verified that it alarmed in the security office?
6. How often are these scheduled to be performed by your procedures?
7. How do you know that a smoke detector was always active such that the alarm must be capable of alerting a person who is prepared to summon assistance promptly (Since you did not identify this as an issue)?
8. The previous system had just one detector for heat and smoke that had a remote alarm. 10 CFR 36.27 states the detectors must activate an audible alarm. The alarm must be capable of alerting a person who is prepared to summon assistance promptly. It appears that you only had one detector that could do this and thus was not fulfilling this

requirement in 10 CFR 36.27. Is there something that I do not understand? (Note that you were not granted the exemption from heat and smoke detectors requested above)

Other Items

When did you discover that GL devices needed transfer reports?

What does RSI stand for? When date do you commit to having the RSI revision be completed for NMMSS accountability and reporting requirements?

On the table of "Special process commitments for alpha-emitting nuclide chemistry operations" I still do not have anything that says these sources identified are authorized to be where they are located, that it is an approved location. (At least for some of the sources)

You had some Pd-103 contamination: A courtesy notification was given in letter dated October 16, 2012 about discovery of 4nCi palladium-103 contamination on an implement. Specific source of contamination was unknown as the sources received had been leak tested.

Was anything more found out about this event?

From: "O'Brien, Thomas" <thomas.obrien@nist.gov>
 To: "Naquin, Tyrone" <Tyrone.Naquin@nrc.gov>
 Date: 9/3/2014 4:14:53 PM
 Subject: RE: Dropped Pu Source Incident Information Report

Ty-

At the time I was notified, my focus was on verifying the activity of the source, the extent of floor contamination, the possible positive nasal swabs, and the 1600 hour deadline for a 24 hour notification. Upon re-reading 10 CFR 70.50, I realized that I applied the "discovery of any of the following events" phrase (in 70.50(b)) to the three items listed under 70.50 (b)(1) when, in fact, all three items must be "met" to require a twenty-four hour report.

I fully agree with your concern (as does the IRSC Chair and NCNR Director) about the late notification. In addition to a sub-committee that has already been charged with investigating the incident, the IRSC Chair, NCNR Director, lead HP at the NCNR, and myself will be meeting to specifically discuss and agree on measures to preclude any future notification issues.

R/Tom

Tom O'Brien M.S., CHP
 Radiation Safety Officer
 Chief, Radiation Safety Division
 Office of Safety, Health and Environment
 National Institute of Standards & Technology
 100 Bureau Drive, Mail Stop 1731
 Gaithersburg, MD 20899-8462

301-975-5800 Voice
 301-975-4893 FAX

Radiation Safety Website: http://safety.nist.gov/radiation_safety/

From: Naquin, Tyrone [mailto:Tyrone.Naquin@nrc.gov]
 Sent: Wednesday, September 03, 2014 3:59 PM
 To: O'Brien, Thomas
 Subject: RE: Dropped Pu Source Incident Information Report

What has changed your mind to retracting? You were not leaning that way at all yesterday when I spoke to you. I'd like to know your rationale.

Bigger than this, I think this is something you need to explore as to why you were not called immediately. Someone needs to explain why the RSO was not called immediately for an event like this. What explanation has been given? For perspective, the follow-on question would be, "What level of event would it take for you to call the RSO?" It would be worth investigation the sequence of events. Who did what and who called whom? And why not you? I'm sure instruction says you are to be called. I just find it unacceptable that someone would feel no need to call the RSO; particularly in light of the events in Boulder just a couple years ago.

I think this is the kind of thing that you should have been called about, and you should have given me a call and we discussed it and go from there. And had you been notified on Friday afternoon, maybe that's what would have happened. And maybe no notification would have been made. But you were put in a spot to make a quick decision.

So, please get back to me on this issue. I think you should put it on your agenda for the next RSC meeting, to tell the truth.

Ty

T. D. Naquin, CHP
NMSS/FCSS/FMB
(301) 287-9144



From: O'Brien, Thomas [mailto:thomas.obrien@nist.gov]
Sent: Wednesday, September 03, 2014 3:40 PM
To: Naquin, Tyrone
Subject: FW: Dropped Pu Source Incident Information Report

Ty-

Here is the latest info along with a pic. The pic is fuzzy due to double bagging but you can see the two overlapping hemispheres. I have been advised that the active area of the source was not affected by the breaking point.

I am drafting an update that will be sent to the Ops Center tomorrow morning. In that update, we will be requesting retraction of the notification given that 70.50 (b)(1)(i) and (iii) are not applicable to this event.

I'll copy you on that transmission.

Tom O'Brien M.S., CHP
Radiation Safety Officer
Chief, Radiation Safety Division
Office of Safety, Health and Environment
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Radiation Safety Website: http://safety.nist.gov/radiation_safety/

From: Brown, David R.
Sent: Wednesday, September 03, 2014 2:13 PM
To: Dimeo, Robert M; Mejias, Manny; Tracy, James W.; Jacobson, David L. Dr.; O'Brien, Thomas
Cc: Hughes, Dan; O'Kelly, Sean; Barvitskie, Timothy J; Brown, David R.; Consani, Keith A.; Johnston, Thomas P; Schwaderer, Marcus D.
Subject: Dropped Pu Source Incident Information Report

As requested and to followup and clarify some of the details as I know them related to the dropped Pu-239 source that occurred on Friday, 8/19/14;

1. Incident reported to Reactor HP at about 1600, 8/29/14.
2. Source dropped during routine handling at the NG-6M experiment station, in the G100 guide hall area of the NCNR.
 - a. Source: Pu-239, RSN 87-0039(4), 2190 Bq; custodian, Alan Thompson; source user, Andrew Yue.
 - b. Source is a vacuum deposit, with a carbon/graphite covering, centered on an approximately 2" diameter silicon wafer substrate. The wafer is now in two half pieces after being dropped onto the floor. The deposit appears to be intact, visually and by radiation survey, on one of the half pieces.
 - c. Source pieces were retrieved on 8/29/14, sealed in multiple bags and stored in a ram storage safe, see attached picture of bagged source. Swipes on exterior of bags are clean.
 - d. The absence of spreadable contamination and initial gamma spectrum measurements of the contained source, leads us to believe that the source deposit is intact. One survey location directly below the source, on the floor, the

only location to have any measurable contamination. This source found to have a very low level spec, about 200 cpm with an alpha survey meter. This is not unexpected as any contact with the surface of the source deposit could result in the transfer of material. The source and carbon covering are quite delicate. Normal source use and handling prohibits contact with the source deposit location on the wafer. This spot on the floor was easily decontaminated, checked, found to be clean, and released.

3. Source use approved under Safety Evaluation, SE-0019 Instrument Tests and Measurements. NG6-M instrument responsible, M. Scott Dewey; PML Group Leader, Muhammad Arif; Division Chief, Lisa Karam.
4. Work area and personnel involved and in vicinity of the incident area have been checked and found to be clear of contamination.
 - a. All-clear, normal access is granted to the NG-6 work area at approximately 1300, 8/30/14.
 - b. Persons directly involved with experiment using source, Andrew Yue(handling source) and Eamon Anderson(observing).
 - c. Reactor HP personnel responding to incident notification, cleanup and followup, Keith Consani(initial response) and David Brown(response and followup).
5. Incident investigation team appointed, Jim Tracy, Manny Mejias, David Jacobson.

Regards,

David Brown

From: "O'Brien, Thomas" <thomas.obrien@nrc.gov>
To: "Ullrich, Elizabeth" <Elizabeth.Ullrich@nrc.gov>
CC: "Miller, John" <John.Miller@nrc.gov>
"Elliott, Robin" <Robin.Elliott@nrc.gov>
Date: 9/11/2014 2:49:55 PM
Subject: RE: still need skin contamination assessment information
Attachments: Varskin NIST.pdf

Hi Betsy-

Here is the data. Pls call if clarification needed.

Thanks

Tom O'Brien M.S., CHP
Radiation Safety Officer
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Radiation Safety Website: http://safety.nist.gov/radiation_safety/

From: Ullrich, Elizabeth [mailto:Elizabeth.Ullrich@nrc.gov]
Sent: Tuesday, September 09, 2014 12:38 PM
To: O'Brien, Thomas
Cc: Miller, John; Elliott, Robin
Subject: still need skin contamination assessment information

Tom,

I forget who was supposed to get me the skin contamination information for review as part of the August inspection. I am working from home today, so if someone needs to call and talk to me, they should use my NRC cell 484-919-8348. Otherwise, I will get my email, and I will be back in the office Wednesday and Thursday this week.

Thanks,
Betsy

Betsy Ullrich
Senior Health Physicist
US NRC Region I Office
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19464
(610) 337-5040 [office]
(b)(6) [cell]
elizabeth.ullrich@nrc.gov

Dear FOIA Requester:

The FOIA Improvement Act of 2016, which was enacted on June 30, 2016, made several changes to the Freedom of Information Act (FOIA). Federal agencies must revise their FOIA regulations to reflect those changes by December 27, 2016. In addition to revising our regulations, we intend to update the Form 464, which we use to respond to FOIA requests.

In the interim, please see the comment box in Part I.C of the attached Form 464. The comment box includes information related to the recent changes to FOIA that is applicable to your FOIA request, including an updated time period for filing an administrative appeal with the NRC.

Sincerely yours,

Stephanie Blaney /S/

Stephanie Blaney
FOIA Officer