



Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken, South Carolina 29802

DEC 01 2016

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Mr. Tom Clements
Savannah River Site Watch
1112 Florence Street
Columbia, SC 29201

Dear Mr. Clements:

**SUBJECT: Freedom of Information Act (FOIA) Requests Savannah River Operations Office
SRO-2016-01335-F**

This letter constitutes our final response to your August 17, 2016 FOIA request for copies of the following:

1. Any reports, documents, memos or analyses related to an investigation into an incident in the L-Area spent fuel basi[n]s around mid-July 2016 in which a caddy holding research reactor spent fuel was dropped onto the spent fuel basin floor;
2. Any follow-up documents to the above-requested documents – in particular any documents related to correctional activities related to the incident and equipment involved in the incident; and
3. Any attachments to the above-requested documents

The documents identified on the enclosed Index List are responsive to your FOIA request. However, U.S. Department of Energy Savannah River Operations Office (DOE-SR) is withholding portions of Document 009 under Exemption 5 of the Freedom of Information Act (FOIA), 5 U.S.C. § 552(b)(5). Exemption 5 of the FOIA exempts from mandatory disclosure documents that are "inter-agency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the agency." 5 U.S.C. § 552(b)(5); 10 C.F.R. § 1004.10(b)(5). This provision exempts "those documents, and only those documents, normally privileged in the civil discovery context." *See NLRB v. Sears, Roebuck and Co.*, 421 U.S. 132, 149 (1975) (*Sears*). The courts have identified three traditional privileges that fall under this definition of exclusion: the attorney-client privilege, the attorney work-product privilege, and the executive deliberative process or pre-decisional privilege. *See Coastal States Gas Corp. v DOE*, 617 F.2d 854, 862 (D.C. Cir. 1980) (*Coastal States*).

The deliberative process privilege protects information that reflects advisory opinions, recommendations, and deliberations comprising part of the process by which government decisions and policies are formulated. *See Sears*, 421 U.S. at 150. This privilege was developed primarily to promote frank and independent discussion among those responsible for making Government decisions. *See EPA v. Mink*, 410 U.S. 73, 87 (1973). The ultimate purpose of the exemption is to protect the quality of agency decisions. *See Sears* 421 U.S. at 151. To withhold information under the deliberative process privilege, the information in question must be both predecisional and deliberative. *See Coastal States*, 617 F.2d at 866.

DEC 01 2016

Document 9 contains predecisional and deliberative information by the Senior Management Review Board on the evaluation of the equipment and about the path forward the Board will take on the Plan. Releasing said document would harm the integrity of DOE's decision-making process and would cause a chilling effect to the predecisional and deliberative process which reflects the personal opinions, recommendations, and deliberations of the writer rather than the policy of the agency.

While there may be a public interest in the disclosure of the withheld information, DOE has determined that such public interest is outweighed by the potential chilling effect disclosure would have upon DOE-SR's efforts with ongoing decision-making process. The disclosure of the withheld information would cause foreseeable harm of our employees to make frank, honest, and open recommendations concerning similar matters in the future. Disclosure could stifle the free exchange of ideas and opinions, which could affect the efficiency and quality of decision-making, which is essential to the sound functioning of DOE programs. Therefore, DOE-SR has determined that disclosure of the information withheld from Document 009 is not in the public interest.

This satisfies the standard set forth in the Attorney General's March 19, 2009 memorandum that the agency is justified in not releasing material that the agency reasonably foresees would harm an interest protected by one of the statutory exemptions. This also satisfies DOE's regulations at 10 C.F.R. § 1004.1 to make records available which it is authorized to withhold under 5 U.S.C. § 552 when it determines that such disclosure is in the public interest. Accordingly, we will not disclose this information. DOE-SR has determined that disclosure of the information withheld from document is not in the public interest.

Since DOE originated Documents 2 and 4, we are transferring those documents for review and direct response to you. If you have any questions about those documents, please contact Mr. Alexander Morris at the address provided below.

If you wish to challenge the adequacy of the search or the information withheld, a written appeal must be submitted within 90 calendar days after receipt of this letter denying the requested information. Written appeals must be submitted to the Director, Office of Hearings and Appeals, Department of Energy, 1000 Independence Avenue, SW, L'Enfant Plaza Building, Washington, DC 20585, pursuant to 10 C.F.R. § 1004.8, which sets forth the required elements of such appeals. Thereafter, judicial review will be available in the district in which the requester resides or has a principal place of business, or in the district in which the records are situated, or in the District of Columbia. You may also submit your appeal by e-mail to OHA.filings@hq.doe.gov, including the phrase "Freedom of Information Appeal" in the subject line.

You may contact DOE Savannah River Operations Office's (SR's) FOIA Public Liaison, Lucy Knowles, Chief Counsel, at (803) 952-7618 or by mail at PO Box A, Aiken, SC, 29802 for any further assistance or to discuss any aspect of your request. Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, Maryland 20740-6001, email at ogis@nara.gov; telephone at (202) 741-5770; toll free at 1-877-684-6448; or facsimile at (202) 741-5769.

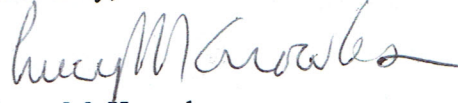
Mr. Tom Clements

3

Based on your justification for a fee waiver, DOE-SR is waiving all allowable fees associated with processing your request.

As Chief Counsel, DOE-SR, I am the authorizing and denying official for the documents responsive to your request. If you have any questions, please contact Ms. Pauline Conner at (803) 952-8134 or pauline.conner@srs.gov.

Sincerely,

A handwritten signature in dark ink, appearing to read "Lucy M. Knowles", with a stylized flourish at the end.

Lucy M. Knowles
Authorizing Official

Enclosures
Index List and Requested Documents

FREEDOM OF INFORMATION ACT
SAVANNAH RIVER OPERATIONS OFFICE (SRO)-2016-01335-F
RESPONSIVE RECORDS LIST

No.	Subject	Date	Pages
001	Star No. 2016-CTS-007594; Topic: Inadvertent NRX Fuel Released from Fuel Tool	7/12/2016	2
002 HQ	Email; Hitesh Nigam, DOE-HQ to Maxcine Maxted, with attached:	7/13/2016	1
002(a) HQ	Attachment: Nuclear Material Stabilization Daily Report	7/13/2016	2
003	Email; Glenn Morgan, SRNS to Carol Johnson, SRNS, et al.; Subject: NRX Inadvertent Release, with attached:	7/13/2016	2
003(a)	Attachment: NRX Basket Overhead View		5
004 HQ	Email Traffic; Hitesh Nigam, DOE-HQ to Maxcine Maxted, DOE-SR; Subject: Canadian Fuel	7/13/2016	2
005	Issue Review Report: NRX Fuel Inadvertent Release	7/13/2016	3
006	EM-SR-SRNS-LAREA-2016-0003; Occurrence Report: Inadvertent NRX Fuel Released from Fuel Tool	7/13/2016	4
007	Email Traffic; Jeffrey Galan, NNSA to Maxcine Maxted, DOE-SR; Subject: Fact Finding Attendance	7/14/2016	3
008	Email; Jeffrey Galan, NNSA to Maxcine Maxted, DOE-SR; Subject: L-Basin NRX Element Issue	7/15/2016	1
009 *5	Email Traffic; Janice Lawson, SRNS to Maxcine Maxted, DOE-SR; Subject: Plan Forward on the Tool	7/15/2016	1
010	Email Traffic; Jeffrey Galan, NNSA to Maxcine Maxted, DOE-SR; Subject: Update	7/18/2016	1
011	Presentation: NRX-5 Fuel Assembly Disengagement and Recovery Spent Fuel Project	7/19/2016	2

Single Issue Report
STAR No. 2016-CTS-007594

INITIATION			
2016-CTS-007594	Issue Type ORP	Sub-Issue N/A	Discovery Date 7/12/2016
Facility MO:L	Resp. Org N1000 (Admin)	Project SFP	Status OPEN
Area L	Bldg No. 105	Initiator Zahaba, Donald (B7683)	Resp. Mgr./Person Lawson, Janice (L3063)
Topic: Inadvertent NRX Fuel released from Fuel Tool			
Specific Requirement: LCO 3.1.4 (The Criticality Control Requirements of Table 3.1.4-1 shall be maintained)			
Issue Description: During the unloading and bundling of NRX-5 fuel from the NRX basket in the Unloading Station, an NRX fuel assembly was being removed from basket position #4. After the fuel assembly was raised approximately 24 inches for fuel identification per SOP-DHS-171-L, the assembly became disengaged from the NRX tool and fell back into its original basket position.			
Sig Cat 3	Program Doc No. EM-SR--SRNS-LAREA-2016-0003		Spec QA Reqmt. NA
NCR: No NCR No.:			
ISSUE EVALUATION			
Description of Causes (Apparent Causes/Root Causes): Initial Engineering evaluation determined that a potential exists for the tool to disengage when a cable twist or compression of the cable occurs. Operations did not notice any cable twists in this tool up to the point when the assembly became disengaged.			
ORPS Report No. EM-SR--SRNS-LAREA-2016-0003	ORPS Sig Cat 4	Categorization Date 7/12/2016	Notification Date 7/14/2016
Criteria: * 10(2)-An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. The significance category assigned to the management concern should be based on an evaluation of the potential risks and impact of safe operations. [Note: Follow the Prompt Notification requirements identified in the Occurrence Reporting Model (Attachment 4).]			
Functional Area: * 22-06-06 - INVESTIGATIVE REPORT 00-02-00 - Equipment 20-09-06 - TOOLS			
Error Precursor/Flawed Defense/Latent Organizational Weakness: EW06 - Unexpected equipment condition			
CAT Code: * A5B2C08-Incomplete/situation not covered		Related Records	IE Completion: Zahaba, Donald (B7683) 7/19/2016
VALIDATIONS			
Issue Analyst Zahaba, Donald (B7683) 7/19/2016		Resp. Mgr./Designee Pending	
ACTIONS			
No.	Description	Assignee/Due Dt/Close Dt	
1	Engineering to troubleshoot existing tool and identify any required mods. Closure Statement: Engineering was able to troubleshoot the NRX tool per work order 1517450 with assistance from Maintenance and Operations. Specific modifications are not recommended at this time. Guidance has been given for procedural controls, in order to continue to use the NRX handling tool.	Assignee: Drinkwater, Nathaniel (C3967) Due Dt: 7/21/2016 Rev. 0 Close Dt: 7/21/2016	
No.	Description	Assignee/Due Dt/Close Dt	
2	Convene L Area Technical Review Board to review/approve results of Engineering troubleshooting and recommendation. Closure Statement: A Technical Review Board was held on 7/21/2016 that discussed the results of the Engineering troubleshooting and recommendations for the NRX Fuel Drop. The	Assignee: Adamson, Jimmy (H0318) Due Dt: 7/22/2016 Rev. 0 Close Dt: 7/21/2016	

	Review Board was satisfactory with minor comments about adding a block to the fault tree for binding of the NRX Caddy in the basket causing a drop.		
No.	Description	Assignee/Due Dt/Close Dt	
3	IPC procedure to provide additional fuel tool checks and/or to address twisting of the cable.	Assignee: Osteen, Ronald (07365) Due Dt: 7/27/2016 Rev. 0 Close Dt: 7/26/2016	
	Closure Statement: The procedure was revised to cover this issue. Procedure is attached.		
APPROVALS / REVIEWS None		DISTRIBUTION None	
ATTACHMENTS			
Reference Document		Refers To	Action #
SOP-DHS-171-L		CLOSURE	3
EM-SR--SRNS-LAREA-2016-0003		INITIATION	---

From: [David Eyler](#)
To: [George Zachmann](#); [Madeline Screven](#)
Subject: Fw: NRX Inadvertent release
Date: 08/25/2016 12:09 PM
Attachments: [NRX Inadvertent Release.pptx](#)

Forwarded in support of FOIA

David Eyler
Executive Vice President & Chief Operating Officer
Savannah River Nuclear Solutions, LLC
Management & Operations Contractor, Savannah River Site
david.eyler@srs.gov
(803) 952-8785 (w)
(803) 507-4858 (c)

----- Forwarded by David Eyler/SRNS/Srs on 08/25/2016 12:08 PM -----

From: Glenn Morgan/SRNS/Srs
To: Carol Johnson/SRNS/Srs@SRS, David Eyler/SRNS/Srs@Srs, Wyatt Clark/SRNS/Srs@SRS,
Richard Sprague/SRNS/Srs@Srs
Cc: Janice Lawson/SRNS/Srs@Srs
Date: 07/13/2016 03:02 PM
Subject: NRX Inadvertent release

The attached slides with my comments and labels will help understand this:

The tool is lowered into the basin and stays in the basin suspended from a chain fall. The team (3 operators, Radcon and FLM), with Hendricks and DOE FR observing, successfully removed three assemblies from the basket. Went to lunch; returned; DOE FR still in Basin Observing (Not Hendricks) and engaged the fourth assembly. To engage the assembly the tool is aligned and twisted to allow the Tabs to retract and after inserted it is twisted back and the Tabs extract into the slots and the handle locked. The tool with the assembly is then raised ~ 2 inches and verification of Tab engaged in slot is performed with FLM also verifying and both Operator and FLM sign off. All parties, including DOE, clearly stated that they saw that the Tabs were engaged properly. The tool and assembly then is lifted to ~ 2 ft and is rotated to verify markings.....the assembly was slowly being raised and somewhere way before 2 ft became disengaged and returned right back in place (estimated by everyone about 8 inches). All actions at that time to Stop were appropriately taken. Note that no one at Issue Review questioned any ConOps or responses. (Jeff Galon NNSA Program Manager, JJ Hynes DOE, Zach McCabe DNFSB, Russ Anderson, Tom Boykin, etc... were all present).

The suspected issue is that the Heli coil cable was twisted (like a phone cord gets.... My Analogy...) and caused the Tabs to retract even with the handle locked. SRNL and L Area Engineering are trouble shooting more to determine.

In the meantime we have all three generations of this tool tagged out and not in service. It is three generations based on CNL issues with fuel assembly length and SRNL had to keep updating based on what we were sent. Now CNL ships us only what is allowed and the correct length. This tool was the 1st generation. We have

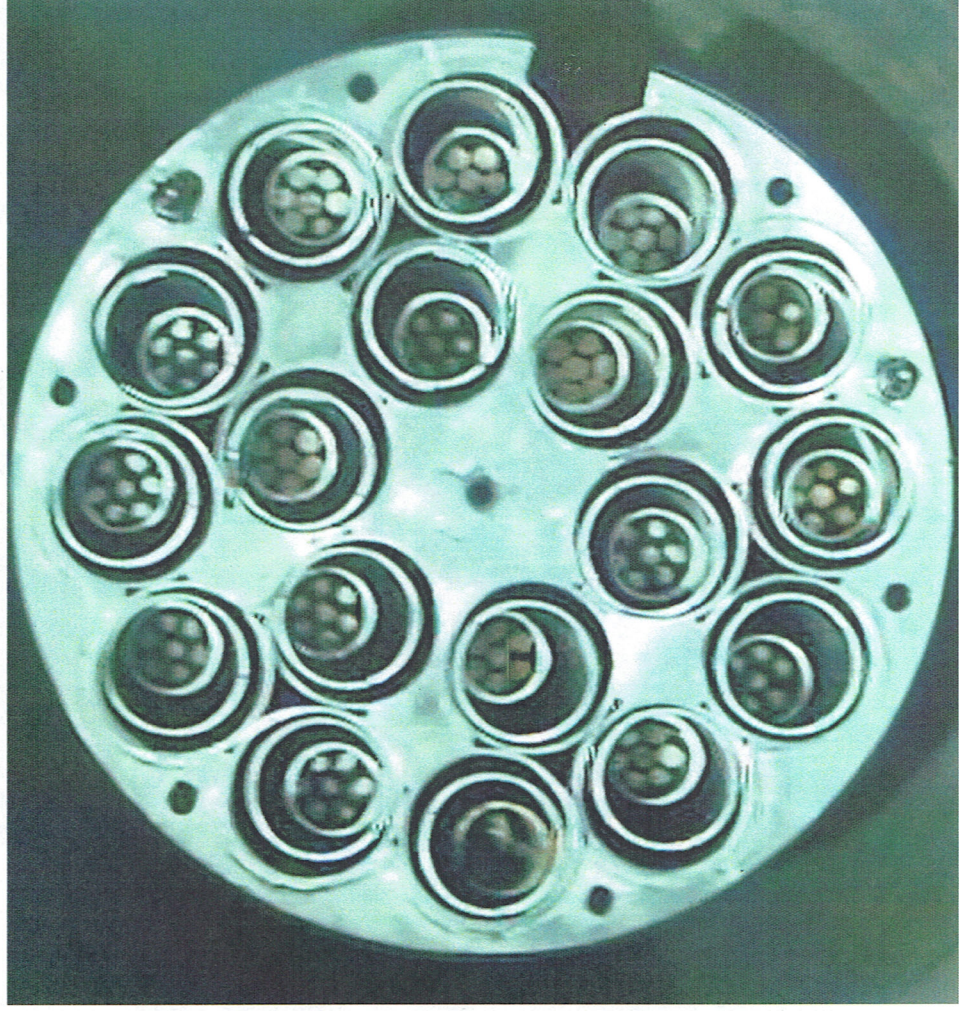
good controls in place to ensure all i's are dotted and t's crossed prior to resuming;
therefore we will be exiting LCO soon

Please let me or Janice know if you have any questions or need more information;
we will update all on the findings as they become available.

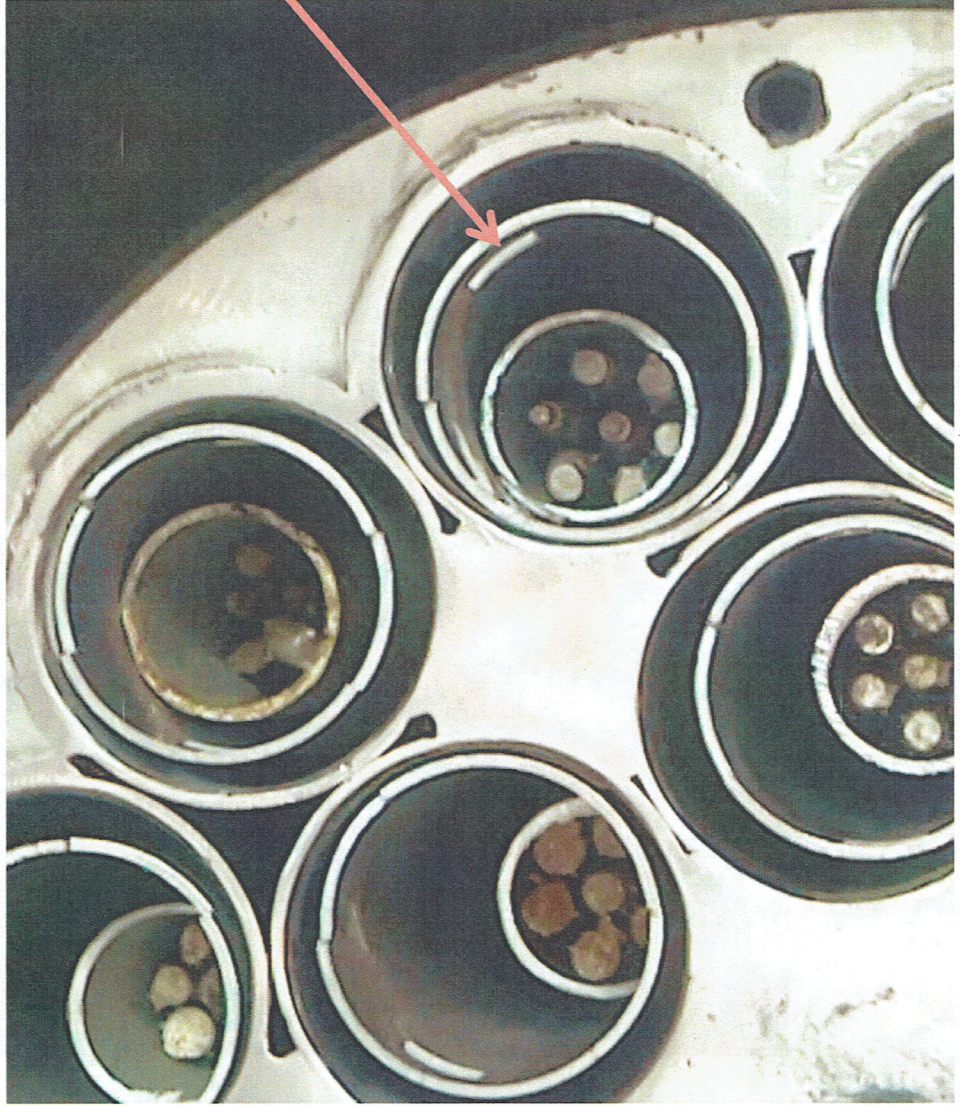


Glenn J. Morgan
SRNS
VP Nuclear Materials Operations
803-208-8474 (W)
803-761-3601 (C)

NRX Basket overhead view

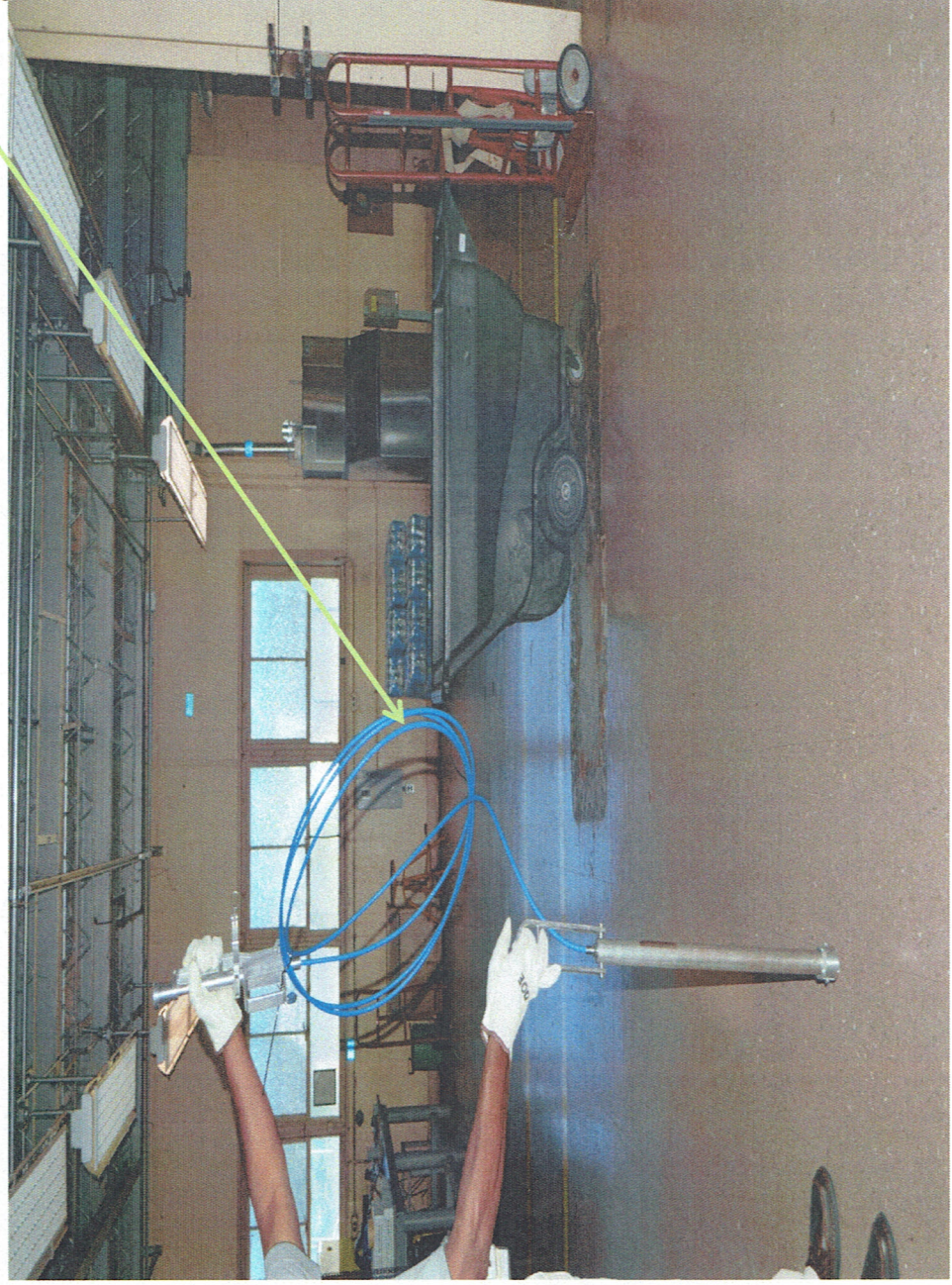


Slots for Tabs

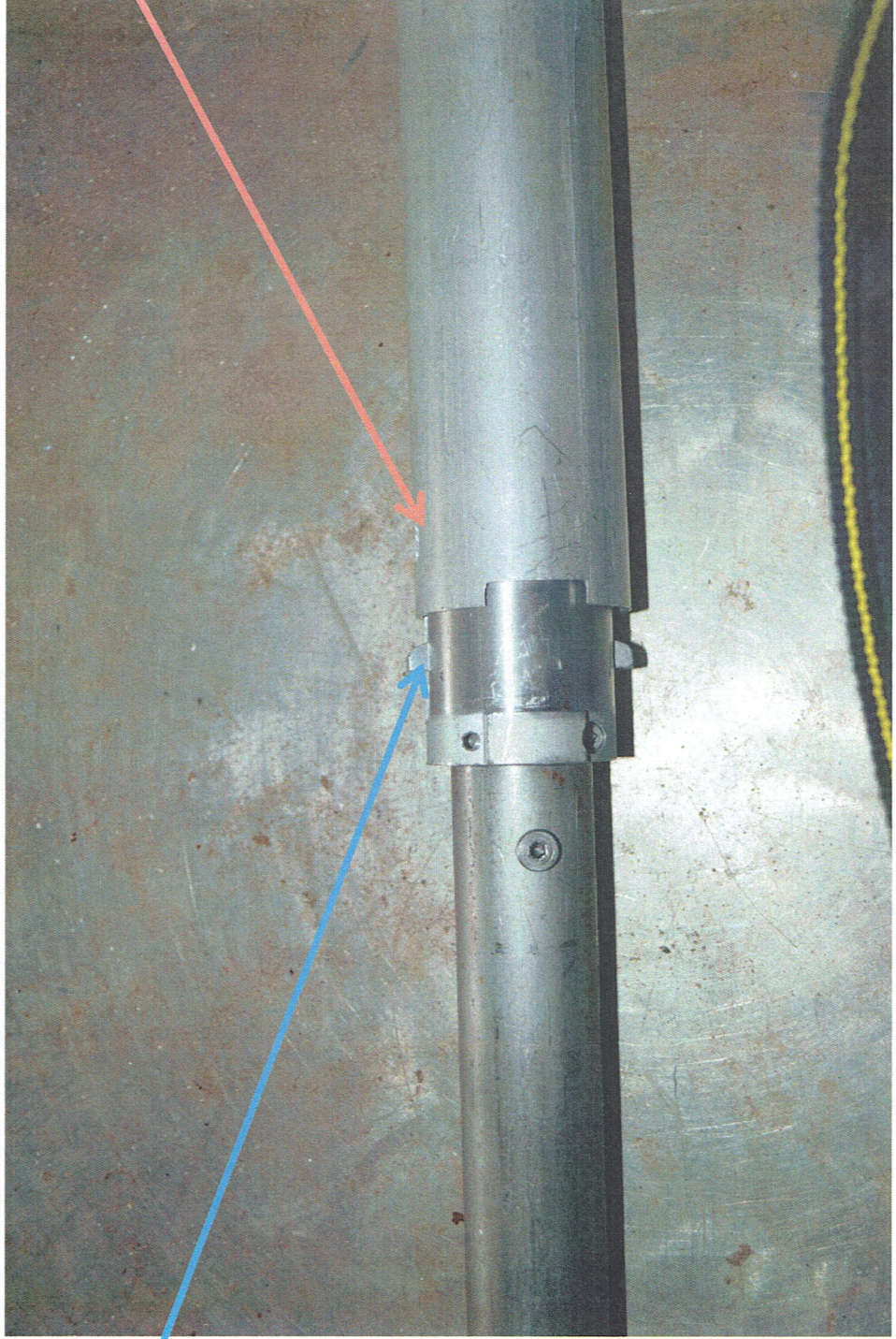


NRX Fuel handling Tool

Heli coil
Cable
suspected to
potentially
got twisted

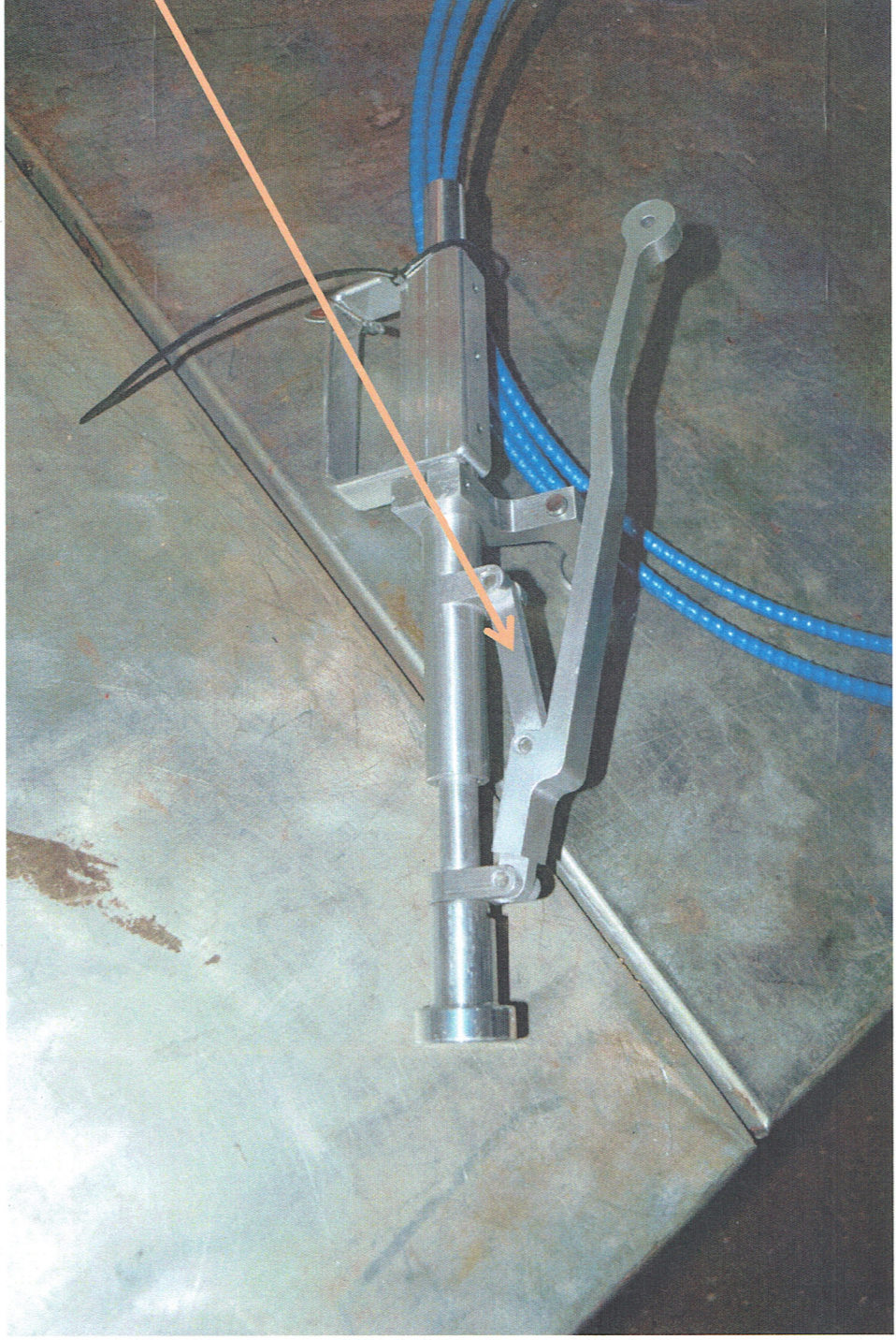


Slots



Tabs

Tool
handle
that is
locked
after
Tabs are
in slot.



Issue Review Report

Date: 07/13/2016

Title: NRX Fuel Inadvertent Release.

Description of issue: During the unloading and bundling of NRX-5 fuel from the NRX basket in the Unloading Station, an NRX fuel assembly was being removed from basket position #4. After the fuel assembly was raised approximately 8 to 10 inches for fuel identification per SOP-DHS-171-L, the assembly became disengaged from the NRX tool and fell back into its original basket position.

Timeline NRX Inadvertent Fuel Release

- 7/11/16, 1400 hrs Task preview performed by crew
- 7/12/16, 0800 hrs Pre Job Brief conducted for NRX Fuel processing per SOP-DHS-171-L .
- 7/12/16. 0900 hrs Crew enter Basin and Initiated Prerequisites of DHS 171.
- 7/12/16, 0930 NRX Fuel Handling tool Inspection completed per SOP-DHS-152-L.
- 7/12/16. 1130 hrs. Three Assemblies successfully unloaded from NRX basket, bundled and stored.
- 7/12/16, 1420 hrs 4th fuel Assembly engaged at basket Position #4 and raised approximately 24inches for fuel identification.
- 7/12/16, 1420 hrs Fuel assembly released from NRX Tool and back into NRX Basket position #4.
- 7/12/16, 1423 BFLM Stopped NRX Fuel Handling and notified the SOM.
- 7/12/16 1425 Contacted Nuclear Criticality Engineering and DFM.
- 7/12/16, 1440 Entered LCO 3.1.4 and completed all immediate Required actions.
- Event ORPS reported as Management Interest 10(2) sig Cat 4.

Immediate actions taken: Fuel handling was stopped and a Timeout was called. The BFLM notified the SOM. LCO 3.1.4 (The Criticality Control Requirements of Table 3.1.4-1 shall be maintained) was entered to allow SFP Engineering and Nuclear and Criticality Safety Engineering to determine status of compliance with the Nuclear Safety Data Sheet (NSDS). SFP Engineering is inspecting the NRX tool in use to help determine the cause of the disengagement. An Issue Review is being scheduled for 7/13/16.

Notifications were made to the Operations Manager, Facility Manager, CSE, Engineering and DOE.

Impact to Operations: Although this event will delay completion of unloading and bundling of NRX-5 fuel, it should not impact scheduled NRU/NRX operations, pending resolution of this issue. It will not impact the shipment offsite of the empty NRX-5 cask scheduled for 7/14/16. Additionally, it should not impact the scheduled shipment of the NRX-5 basket offsite that is scheduled for 8/15/16. If NRX-5 basket unloading is not completed by 7/29/16, it will impact the scheduled placement of the next NRU/NRX basket in the Unloading Station for unloading and bundling.

Reportability: 10(2) Category 4 STAR issue 2016-CTS-7594

Actions:

Engineering to troubleshoot existing tool and identify any required mods.

Convene L Area Technical Review Board to review/approve results of Engineering troubleshooting and recommendation.

IPC the procedure to provide additional fuel tool checks and/or address twisting of the tool cable.

List of Attendees

List of Attendees Template
Page 1 of 1

FFM/IR Title: NRX Fuel Inadvertent Release Date/Time: 7/13/16 1230

Name	Organization	Function	Telephone Number
Janice Lawson	EMO	L Area FM	7-5959
Butch Marshall	SFP Eng	Eng Mgr	7-5981
Zachary McCarty	DNFSB	Site Rep	5-0173
Ray Boyd	NCSE	L Area SBRA	7-5935
TED GRIFFIN	NMME	ENGR MGR	73539
David Rose	N+CSE	Area Manager	7-6105
DAVE WELLIVER	NMME	DEP. ENGR MGR	7-3004
HEATHER GROVE	N+CSE	PROGRAM MANAGER	7-6301
Kevin Counts	SRNL	R&D ENGINEERING	5-0731
JJ HYNES	DOE	Dep AM	8-0447
Outrice Broadwater	DOE	FR	7-3890
JAMES BERO	SRNS	OPERATOR	7-5912
RAHN ROSS	SRNS	L CRIT	7-6156
Chad Meyer	SRNS	OPS	7-6080
KEITH BEARDEN	SRNS QA	CQF	7-6122

List of Attendees Template
Page 1 of 1

FFM/IR Title: _____

Date/Time: _____

Name	Organization	Function	Telephone Number
Russ Anderson	SRNS	CONOPS Manager	2-9634
MARK PERSON	SRNS TRNG	L-Training	7-6214
T.O. Boykin	SRNS IEB	Director	2-8931
Todd M Sipes	SRNS OPS	BFLM	7-6080
Otis M Kay	SRNS OPS	BFLM	7-5916
Jeff Neeley	SRNS / OPS	OPERATOR	7-6189
Nathaniel Drinkwater	SRNS/SFPENG	Engineer	7-5750
Russell Black	SRNS / RPD	RPD FM	7-6033
Eddie Rains	SRNS / OPS	Operations Coord.	7-6172
Jeff Galan	NNSA	Program Manager	2-7639
Jimmy Admsen	SRNS ENR JLR	ENR	7-6173
Geoff Hendrick	SRNS	DFM	7-6025
Glenn Morgan	EM OPS ENR	VP	8-8474

EM-SR--SRNS-LAREA-2016-0003

NOTIFICATION/FINAL

Occurrence Report

After 2003 Redesign

L - Area

(Name of Facility)

Irradiated Fissile Material Storage

(Facility Function)

Savannah River Site

Savannah River Nuclear Solutions

(Site)

(Contractor)

Name: Lawson, Janice**Title:** Facility Manager**Telephone No.:** (803) 557-5959

(Facility Manager/Designee)

Name: ZAHABA, DONALD M**Title:** OCCURENCE INVESTIGATOR**Telephone No.:** (803) 557-6200

(Originator/Transmitter)

Name: Donald M. Zahaba**Date:** 07/13/2016

(Authorized Classifier (AC))

1. Occurrence Report Number: EM-SR--SRNS-LAREA-2016-0003

Inadvertent NRX Fuel released from Fuel Tool

2. Report Type and Date: NOTIFICATION/FINAL

	Date	Time
Notification:	07/14/2016	16:15 (ETZ)
Initial Update:	07/14/2016	16:15 (ETZ)
Latest Update:	07/14/2016	16:15 (ETZ)
Final:	07/14/2016	16:15 (ETZ)

3. Significance Category: 4

4. Division or Project: EM Operations/L Area

5. Secretarial Office: EM - Environmental Management

6. System, Bldg., or Equipment: Fuel Storage/105-L/Fuel handling tool

7. UCNI?: No

8. Plant Area: L Area

9. Date and Time Discovered: 07/12/2016 14:23 (ETZ)

10. Date and Time Categorized: 07/12/2016 17:00 (ETZ)

11. DOE HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

12. Other Notifications:

Date	Time	Person Notified	Organization
07/12/2016	14:30 (ETZ)	Janice Lawson	FM
07/12/2016	14:23 (ETZ)	Don Joyner	Ops Mgr
07/12/2016	18:05 (ETZ)	Zack McCabe	DNSFB
07/12/2016	14:30 (ETZ)	Butch Marschall	Eng Mgr
07/12/2016	14:30 (ETZ)	Geoff Hendrick	Dep. FM
07/12/2016	14:30 (ETZ)	Rahn Ross	NUC Crit
07/12/2016	15:00 (ETZ)	Robbie Black	RPD Mgr
07/12/2016	17:33 (ETZ)	Ombrey Broadwater	DOE FR

13. Subject or Title of Occurrence:

Inadvertent NRX Fuel released from Fuel Tool

14. Reporting Criteria:

10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern for that facility or other facilities or activities in the DOE complex.

The significance category assigned to the management concern should be based on an evaluation of the potential risks and impact on safe operations. (1 of 4 criteria - This is a SC 4 occurrence)

15. Description of Occurrence:

During the unloading and bundling of NRX-5 fuel from the NRX basket in the Unloading Station, an NRX fuel assembly was being removed from basket position #4. After the fuel assembly was raised approximately 24 inches for fuel identification per SOP-DHS-171-L, the assembly became disengaged from the NRX tool and fell back into its original basket position.

16. Is Subcontractor Involved? No

17. Operating Conditions of Facility at Time of Occurrence:

Operations Mode. Fuel unloading at Unloading Station

18. Activity Category:

03 - Normal Operations (other than Activities specifically listed in this Category)

19. Immediate Actions Taken and Results:

Fuel handling was stopped and a Timeout was called. The BFLM notified the SOM. LCO 3.1.4 (The Criticality Control Requirements of Table 3.1.4-1 shall be maintained) was entered to allow SFP Engineering and Nuclear and Criticality Safety Engineering to determine status of compliance with the Nuclear Safety Data Sheet (NSDS). SFP Engineering is inspecting the NRX tool in use to help determine the cause of the disengagement.

20. ISM:

6) N/A (Not applicable to ISM Core Functions as determined by management review.)

21. Cause Code(s):

22. Description of Cause:

23. Evaluation (by Facility Manager/Designee):

24. Is Further Evaluation Required?: No

25. Corrective Actions

Local Tracking System Name: STAR - Site Tracking, Analysis and Reporting

26. Lessons Learned:

27. Similar Occurrence Report Numbers:

28. User-defined Field #1:**29. User-defined Field #2:**

30. HQ Keyword(s):

05D--Mechanical/Structural - Mechanical Equipment Failure/Damage
12E--EH Categories - Equipment Degradation/Failure
14L--Quality Assurance - No QA Deficiency


31. HQ Summary:

On July 12, 2016, during the unloading and bundling of National Research Experimental (NRX)-5 fuel from the NRX basket in the unloading station, an NRX fuel assembly was being removed from basket position 4. After the fuel assembly was raised 24 inches for fuel identification per procedure, the assembly became disengaged from the NRX tool and fell back into its original basket position. Fuel handling was stopped and a timeout was called. Limiting Conditions for Operations 3.1.4 was entered to allow Spent Fuel Project (SFP) Engineering and Nuclear and Criticality Safety Engineering to determine status of compliance with the nuclear safety data sheet. SFP Engineering is inspecting the NRX tool in use to help determine the cause of the disengagement.

32. DOE Facility Representative Input:

33. DOE Program Manager Input:



Re: Fact Finding attendance 
Jeffrey Galan to: Maxcine Maxted

07/14/2016 12:04 PM

Understood and agreed.

Thanks.

Jeff Galan
Program Manager
U.S. Nuclear Material Removal Program
National Nuclear Security Administration
P.O. Box A
Aiken, SC 29802-0900
(803) 952-7639 ofc
(240) 388-5438 cell

Maxcine Maxted

Jeff- I totally agree we have to work as a team a...

07/14/2016 11:34:26 AM

From: Maxcine Maxted/DOE/Srs
To: Jeffrey Galan/NNSA/DOE/Srs@Srs
Date: 07/14/2016 11:34 AM
Subject: Re: Fact Finding attendance

Jeff-

I totally agree we have to work as a team and we need trust in order to do that.

I understand you don't think you interfered with the fact finding but I do hope you realize the extreme stress that the employees are under during one of those meetings and the fact someone is in the room from NNSA that they don't really know adds to that stress. These meetings can mean their jobs, so please keep that in mind in the future.

As for impacting CNL shipments, I don't think it will impact shipments due to a few items: 1) there is still over a week's worth of time before it would have an impact 2) L-Basin has at least 2 different tools to use for unloading the basket 3) worst case the next shipment could be unloaded into the STS - now this would impact any other receipts or shipments in L-Basin but that is an option the facility and EM could utilize.

As for not informing you in a timely manner, I found out late on Monday, when I was told the facility hadn't entered the LCO at the time but was going to switch to another tool and continue unloading. I didn't know about the fact finding until it was occurring. However, even if I did know about it I wouldn't have attended because that is an operational issue and our Facility Reps handle those issues. In L-Area we have a very effective Integrated Project Team (IPT) made up of Engineering, Operations, Programs, and Criticality. We do a good job of keeping each other informed.

I would definitely like to move forward with trust and teamwork but trust must be earned and I think we both have to work to gain each other's trust at this point, which I'm willing to do. As for the timely sharing of information, I don't think there are indications that I haven't shared information freely with you.

Thanks,

Maxcine Maxted

(803) 208-0506 pager 20767

Jeffrey Galan

Well I'm sorry you didn't appreciate my attendan...

07/13/2016 06:09:27 PM

From: Jeffrey Galan/NNSA/DOE/Srs
To: Maxcine Maxted/DOE/Srs@SRS
Date: 07/13/2016 06:09 PM
Subject: Re: Fact Finding attendance

Well I'm sorry you didn't appreciate my attendance, but I believe I had every right to be there. Yes, L-basin is most definitely an EM facility, but the contract that Canada has to ship that spent fuel is with NNSA. The funds EM receives as a result of those shipments comes through an NNSA contract. I am the COR for that contract and the Program Manager for those returns.

I understand NOW that this was a fact finding meeting for the facility, but regardless, I didn't interfere with that process, I simply sat there and listened.

From what you know right now, you personally don't believe there will be an impact on the Canadian shipments, however, I don't agree with you. If history is any sign of what is to come, then there is a good chance it might delay the next shipment. Every Canadian shipment that is delayed by a day, a week or a month, has a ripple effect down the line and I'm the one that has to deal with trying to get all the Canadian material to SRS prior to end of the FRR Program or figure out an alternative.

As for hearing about this from you, why didn't you tell me yesterday? Why did I have to find this out on my own? I actually learned about it because Virginia Kay saw it in the Daily Activity Log. I then felt obligated to figure out what occurred so I could timely inform my superiors.

I fully understand that the operation of L-basin is an EM function and under your purview and I would never intentionally interfere.

We must work as a team in order to complete these shipments and that requires trust and the timely sharing of information.

Let's move forward with that in mind.

Jeff Galan
Program Manager
U.S. Nuclear Material Removal Program
National Nuclear Security Administration
P.O. Box A
Aiken, SC 29802-0900
(803) 952-7639 ofc
(240) 388-5438 cell

Maxcine Maxted

Jeff- I really don't appreciate you attending the fa...

07/13/2016 04:12:09 PM

From: Maxcine Maxted/DOE/Srs
To: Jeffrey Galan/NNSA/DOE/Srs@Srs
Date: 07/13/2016 04:12 PM
Subject: Fact Finding attendance

Jeff-

I really don't appreciate you attending the fact finding for L-Area today. It is not an NNSA facility, its not even NNSA owned fuel once it enters the site gate. So I don't understand why you thought you needed to be there and what value you added to the meeting.

Those meetings are for the facility to figure out what happened and what needs to be done to get back to normal. They are typically largely attended and that doesn't help to get to the bottom of the issues with more people joining in the meeting.

From what we know at this point, there is no impact to the CNL shipments and if there were going to be an impact, you can expect to hear that information from me (EM) not your inside ears.

In the future, please discuss with me before you attend a meeting regarding the EM owned L-Area/L-Basin.

Thanks,

Maxcine Maxted

(803) 208-0506 pager 20767



L-basin NRX element issue

Jeffrey Galan to: maxcine.maxted

07/15/2016 12:08 PM

History:

This message has been replied to.

Hey Maxine,

I'm going to be gone next week on travel/training so I shouldn't be causing you any headaches.


However, before I leave I just wanted to drop you a note and see if you've heard anything different from your folks regarding the status of their investigation? (I doubt it).

If anything is updated next week, could you please update me as well? My HQ is always very interested in the NRU/NRX and TRM shipment schedules and any perceived hiccups. The TRM delays are what's really got them in a lather, unfortunately that means the NRU/NRX program is getting a little additional attention. Once the TRM gets going, I'm hopeful NRU/NRX will fall a bit off their radar (fingers crossed).

Thanks and have a good weekend.

Jeff Galan
Program Manager
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Re: plan forward on the tool 
Janice Lawson to: Maxcine Maxted
Cc: Geoffrey Hendrick

07/15/2016 07:48 AM

Exemption 5

Janice

J. L. Lawson| SRNS |K-Area Complex/L-Area Facility Manager| Savannah River Site, 704-K |
janice.lawson@srs.gov | Office: 803-557-3871| Mobile: 803-507-4101| Pager 803-725-PAGE Beeper
17631

Maxcine Maxted

Just need an update on what the plan is that let...

07/15/2016 07:42:01 AM

From: Maxcine Maxted/DOE/Srs
To: Geoffrey Hendrick/SRNS/Srs@SRS, Janice Lawson/SRNS/Srs@Srs, Pat
Livengood/SRNS/Srs@Srs
Date: 07/15/2016 07:42 AM
Subject: plan forward on the tool

Just need an update on what the plan is that let us exit the LCO. Lots of outside interest in this.

Thanks,

Maxcine Maxted

(803) 208-0506 pager 20767



Re: Update
Jeffrey Galan

to: Maxcine Maxted

07/18/2016 11:40 PM

Thanks for the update Maxine.

Jeff Galan

Program Manager

U.S. Nuclear Material Removal

National Nuclear Security Administration

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On Jul 18, 2016, at 3:44 PM, Maxcine Maxted <Maxcine.Maxted@srs.gov> wrote:

Jeff-

SRNS will inspect the cable for the tool tomorrow. They don't expect to find a smoking gun. Because of that they will have a technical review board on Thursday that will provide a recommendation for moving forward.

I'll let you know what happens. We still don't think it will impact CNL loading. We will let them know about it on the normal call tomorrow.

Thanks,

Maxcine Maxted

(803) 208-0506 pager 20767

NRX-5 Fuel Assembly Disengagement and Recovery

Spent Fuel Project

Author POC: Don Joyner

Manager: Rob Dillman

7/19/16

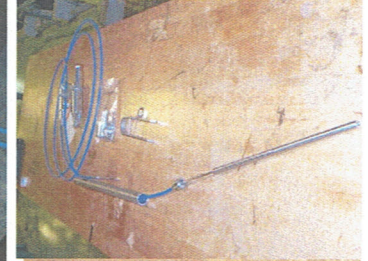
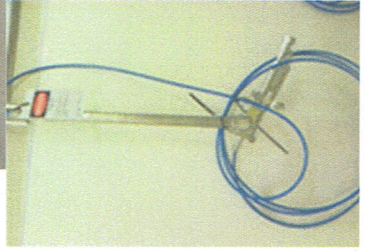
Problem Description / Background

During the unloading and bundling of NRX-5 fuel from the NRX basket in the Unloading Station on 7/12/16, an NRX fuel assembly was being removed from basket position #4. As the fuel assembly was being partially raised for fuel identification per SOP-DHS-171-L, the assembly became disengaged from the NRX tool after being lifted approximately 8 inches, causing it to return back into its original basket position. Prior to disengagement, the tool had been verified with a camera to be fully engaged with the assembly with the tool handle fully closed and locked in the engaged position.

Potential Cause

Initial Engineering evaluation determined that a potential exists for the tool to disengage when a cable twist or compression of the cable occurs. Operations did not notice any cable twists in this tool up to the point when the assembly became disengaged.

NRX Fuel Handling Tool



Actions Taken / Impact

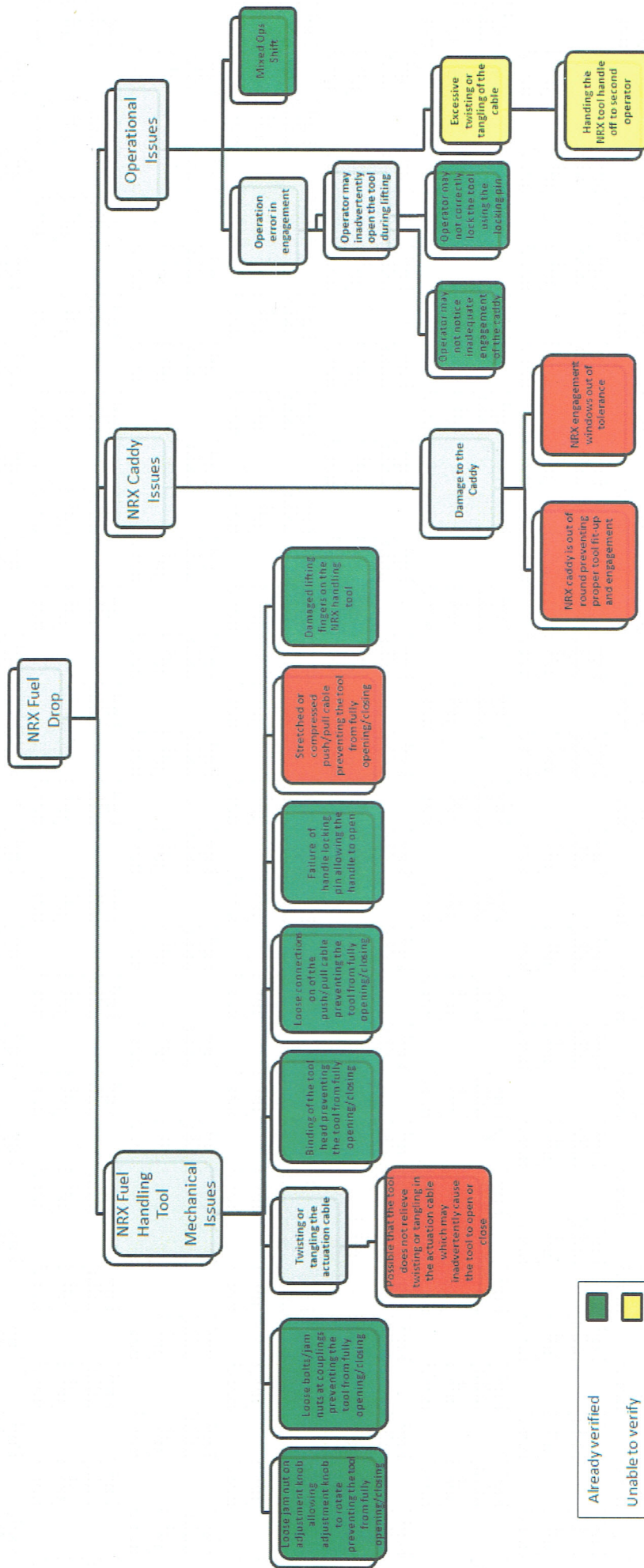
- Fuel handling stopped, Timeout called, and SOP-DHS-171-L suspended.
- LCO 3.1.4 (The Criticality Control Requirements of Table 3.1.4-1 shall be maintained) was entered to allow SFP Engineering and Nuclear and Criticality Safety Engineering to determine status of compliance with the Nuclear Safety Data Sheet (NSDS).
- Engineering and N&CSE determined that the fuel remained within the handling and storage requirements specified in the NSDS and was in compliance with criticality requirements. LCO 3.1.4 was exited on 7/14/16.
- SFP Engineering initial inspection of NRX tool did not reveal a direct cause for the disengagement.
- All NRU and NRX fuel handling tools removed from service and tagged "do not operate" due to all tools using a similar flexible cable system for tool actuation.
- Issue Review completed on 7/13/16.
- ORPS Category 10(2) Management Concern submitted.
- Impact: Delay in completion of unloading and bundling of NRX-5 fuel. This delay will not impact currently scheduled NRU/NRX activities unless the NRX-5 basket is not unloaded by 7/29/16, at that time when it will then impact the scheduled placement of the next NRU/NRX basket in the Unloading Station for unloading and bundling.

Path Forward

- Engineering to troubleshoot existing tool and identify any required mods. If needed (see Engineering Fault Tree on back of A3). (7/21/16)
- Convene L Area Technical Review Board to review/approve results of Engineering troubleshooting and recommendation. (7/22/16)
- Modify fuel tool (if required, projected minimum 6 week duration)

Dates based on NO modification of fuel tool to resume work.

- IPC procedure to provide additional fuel tool checks and/or to address twisting of the cable. (7/27/16)
- Resume suspended procedure SOP-DHS-171-L. (7/28/16)
- Unload assemblies in basket positions 5 through 18. (7/31/16)
- Unload basket position 4 using NRX tool that engages the flow tube and caddy in the unlikely event the caddy in this position is damaged. (8/1/16)
- Obtain video of fuel assembly as it is removed from basket position 4. This will include video of caddy bottom. (8/1/16)
- Perform camera inspection of NRX empty basket position 4 to ensure no damage to basket bottom due to assembly disengagement. (8/1/16)



Already verified

Unable to verify

More testing needed