

Criticality Safety Officers: Roles and Responsibilities at the Y-12 Nuclear Security Complex

Preston Carroll, Criticality Safety Officer

November 12th, 2018

UNCLASSIFIED

This document has been reviewed by a Y-12 DC/UCNI-RO and has been determined to be UNCLASSIFIED and contains no UCNI. This review does not constitute clearance for public release.

Name:

Date:

Outline

- Production/NCS resources
- NCS Hazard Evaluation
- Criticality Safety Evaluation
- Operational Reviews
- Abnormal Response
- IAPP and SGS



<https://www.youtube.com/watch?v=hNuu9Cpdjlo>

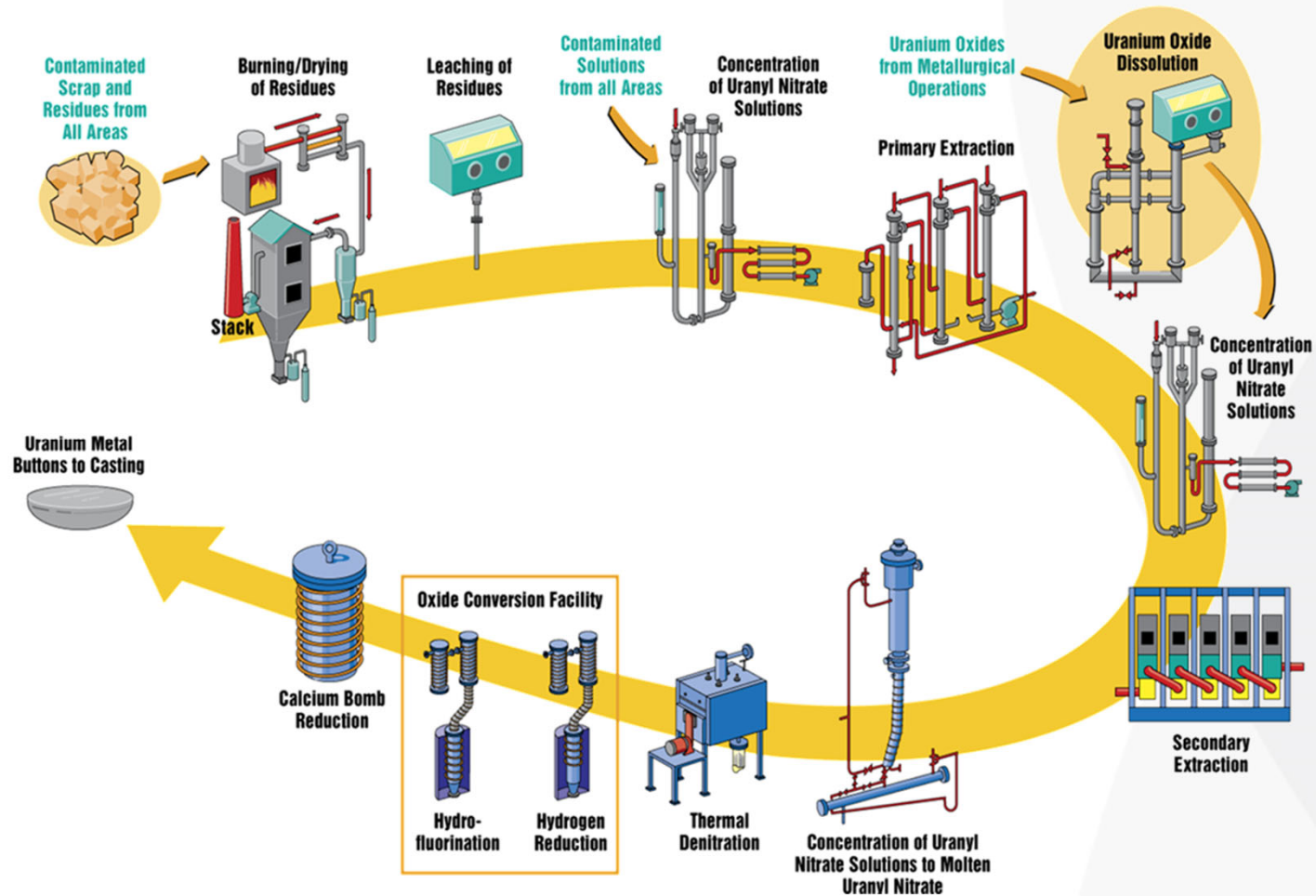
Production Schedule

EUO - PRODUCTION TOP 10 CRITICALITY SAFETY PRIORITY LIST

| Task Details | | | | | DUE DATES | | | | | | | | Deliverables | | Updated: | 11/7/2018 |
|--------------|----------------------------|------------------------------------|--------------|-----------|------------------|---|------------|--|-----------------|---|------------|---|--|--|----------|-----------|
| Priority | Production Support Manager | Task Description | NCS Document | | Peer Review | | Ops Review | | Approved | | Effective | | 1. Next Deliverable(s) 2. POC 3. Expected Date | Comments | | |
| | | | | | Date | Delay | Date | Delay | Date | Delay | Date | Delay | | | | |
| 1 | Aaron Watson | LCS - Vacuum only (not mop bucket) | LCS-111 | NCS Start | 10/11/2017 (est) | <input type="checkbox"/> Resources <input type="checkbox"/> Priority Conflict <input type="checkbox"/> Need more scope <input type="checkbox"/> Other: | | <input type="checkbox"/> NCS Delay <input type="checkbox"/> Extensive comments <input type="checkbox"/> Priority Conflict <input type="checkbox"/> Other: | | <input type="checkbox"/> CCR/FSE Checklist <input type="checkbox"/> CCB/OSB Scheduling <input type="checkbox"/> USQD Approval <input type="checkbox"/> Priority Conflict <input checked="" type="checkbox"/> Other: NCS Delay, damp re-design | | <input type="checkbox"/> Phys. Mod <input type="checkbox"/> Supporting Engr. Docs <input type="checkbox"/> Priority Conflict <input type="checkbox"/> Other: | 1. approved CSE | new target approved date is 1/31/2019; re-baseline? | | |
| | | | | Scheduled | 12/21/2017 | | 1/15/2018 | | 1/31/2018 | | 2/28/2018 | | 2. hazelwood | | | |
| | | | | Actual | 1/29/2018 | | 1/30/2018 | | | | | | 3. 1/31/2019 | | | |
| | | | | POC | Lichtenwalter | | Sitzlar | | Anita Hazelwood | | Sitzlar | | | | | |
| 2 | Keith Weatherly | Briquettes | CSE-CE/W-016 | NCS Start | | <input type="checkbox"/> Resources <input type="checkbox"/> Priority Conflict <input type="checkbox"/> Need more scope <input type="checkbox"/> Other: | | <input type="checkbox"/> NCS Delay <input type="checkbox"/> Extensive comments <input type="checkbox"/> Priority Conflict <input type="checkbox"/> Other: | | <input type="checkbox"/> CCR/FSE Checklist <input type="checkbox"/> CCB/OSB Scheduling <input type="checkbox"/> USQD Approval <input type="checkbox"/> Priority Conflict <input type="checkbox"/> Other: | | <input type="checkbox"/> Phys. Mod <input type="checkbox"/> Supporting Engr. Docs <input type="checkbox"/> Priority Conflict <input type="checkbox"/> Other: | 1. Approved CSE DCN | 10/31/18: DCN routing for signatures | | |
| | | | | Scheduled | -- | | -- | | 10/17/2018 | | 10/18/2018 | | 2. McGee | | | |
| | | | | Actual | 10/2/2018 | | 10/3/2018 | | | | | | 3. 11/1/18 | | | |
| | | | | POC | McGee | | Sitzlar | | Sitzlar | | Sitzlar | | | | | |
| 3 | Weatherly | U-Moly | CSE-CE/W-016 | NCS Start | 6/20/2018 | <input type="checkbox"/> Resources <input type="checkbox"/> Priority Conflict <input type="checkbox"/> Need more scope <input type="checkbox"/> Other: | | <input type="checkbox"/> NCS Delay <input type="checkbox"/> Extensive comments <input type="checkbox"/> Priority Conflict <input type="checkbox"/> Other: | | <input type="checkbox"/> CCR/FSE Checklist <input type="checkbox"/> CCB/OSB Scheduling <input type="checkbox"/> USQD Approval <input type="checkbox"/> Priority Conflict <input checked="" type="checkbox"/> Other: S&T review delay | | <input type="checkbox"/> Phys. Mod <input type="checkbox"/> Supporting Engr. Docs <input type="checkbox"/> Priority Conflict <input type="checkbox"/> Other: | 1. Approved USQD | 1. USQD of Change Package in process 3. CSB of Change Package (Sitzlar) 4. CSE Effective (Sitzlar). Note: Will be -129 change in separate change package that will have to be effective before assembly can be used. (Bynaker). DCN for briquettes will have to be added to package as an FCR. | | |
| | | | | Scheduled | July/August | | -- | | 10/15/2018 | | 10/18/2018 | | 2. Lisa Smith | | | |
| | | | | Actual | 7/30/2018 | | 8/13/2018 | | | | | | 3. TBD | | | |
| | | | | POC | McGee | | Sitzlar | | Sitzlar | | Bynaker | | | | | |

NCS Hazard Evaluation

- Assist in contingency development of NCS evaluation.



Criticality Safety Evaluation Revision and Implementation

- Operation Review and Validation



Criticality Safety Evaluation Revision and Implementation

- CSE approval
 - Configuration Control Board
 - Safety and Technical Review
 - Unreviewed Safety Question Determination
 - Operational Safety Board



Criticality Safety Evaluation Revision and Implementation

NCS CONTROLS CROSSWALK

| | | | |
|--------|---|---|--------------------|
| | located at the east end of the centrifuge bowl cleaning hood as shown on Drawing M-L13. | TI-PD-921500-A001 | |
| 6.1.7 | Chip Can Stands shall provide at least the minimum spacing shown by drawing MO-D2. | MO-D2 | |
| 6.1.8 | Chip Can Stands shall be designed to retain Hospital Cans, Modified Hospital Cans, and their contents | MO-D2 SAP Plan 66904 CK N9215-MO-0002 PF TI-PD-921500-A001 CK T9215-MO-0001 CK T9215-MO-0002 WD 9215-MO-0009 | |
| 6.1.9 | Polycarbonate fixtures used on Chip Can Stands shall be configured as shown on drawing MO-D2. | MO-D2 SAP Plan 66904 CK N9215-MO-0002 PF TI-PD-921500-A001 CK T9215-MO-0001 CK T9215-MO-0002 | |
| 6.1.10 | Polycarbonate fixtures used on Chip Can Stands shall have a mass less than or equal to 1.3 kg. | DD-T802347-0002 SPC T802347-0001 CK T9215-MO-0001 | |
| 6.2 | ACTIVE DESIGN FEATURES | | |
| 6.3 | ADMINISTRATIVELY CONTROLLED LIMITS AND REQUIREMENTS | | |
| 6.3.1 | In-Process Storage Arrays shall have the maximum dimensions as shown on Drawings M-L4 through M-L9, M-L12, M-L13, and 9998-L2 and be spaced a minimum of 12 inches from the work zone and chip pans on machines, the active portion of fissile material workstations, other arrays, and Chip Can Stands. | Drawing M-L4 Drawing M-L5 Drawing M-L6 Drawing M-L7 Drawing M-L8 Drawing M-L9 Drawing M-L12 Drawing M-L13 Drawing 9998-L2 | |
| 6.3.2 | In-Process Storage Arrays shall be limited to the following containers, as loaded per Y/MA-7270: <ul style="list-style-type: none"> One Single Position Safe Bottle Dolly, or any of the following: <ul style="list-style-type: none"> 20-in. Birdcages (max of six) 24-in. Birdcages (max of four) Shipping/DT Containers Dollies other than a Single Position Safe Bottle Dolly and 6 Place Can Dollies | Y50-03-10-006 | CSR-MO-053 IPSA-R1 |

Criticality Safety Evaluation Revision and Implementation

Page 1 of 4

CSE REQUIREMENTS IMPLEMENTATION PLAN

| | | |
|-----------------------------------|--------------------|---------------|
| DOCUMENT(S) / REVISION(S): | DRAFT DATE: | STATUS |
| CSE-MO-053 / 18 | | PRELIMINARY |
| | | FINAL |
| DOCUMENT TITLE: | | |
| MACHINING OPERATIONS (U) | | |
| IMPLEMENTATION LEAD: | | |
| PRESTON CARROLL | | |

List items specific to this CSR/CSA which must be accomplished for implementation. Include field changes such as signs, arrays, equipment, maintenance requests, labeling, authorizing change package and/or associated documentation changes such as procedures, round sheets, surveillance matrices, or checklist revisions (see page 2 of this form); USQ screening; and development of training modules, scheduling and conducting training. Also, include changes to SSC grading sheets and MELs, as applicable. Attach additional sheets as necessary.

| ITEMS TO BE COMPLETED PRIOR TO THE EFFECTIVE DATE | RESPONSIBLE PERSON | VERIFIED COMPLETE BY (Initials) |
|--|--------------------|---------------------------------|
| Revise postings for DIM to remove attendance requirement | Carroll | |
| Ensure CCG-319 for CCS guards is effective prior to installing guards. | Carroll | BAL |
| Schedule an Engineering Walk down for guard durability | Carroll | PWC |
| Procure and install guards | Baird | |
| Update PDFSD | Pearsall/Lomax | |
| Revise M-L5, M-L6, M-L7, M-L8, M-L9, 9998-L2 | Foulk | |
| Create drawings for CCS guards T802347-0002, T802347-0003 | Shay | BAL |
| Revise Y50-03-10-006, Y50-03-10-009, Y50-03-10-011, Y52-03-10-001, Y50-03-10-002, Y58-08-MOPS-003, Y58-08-MOPS-004, CK 9215-CL-001 | Campbell | |
| Update Workstation postings | Carroll | |

Operational Reviews



Abnormal Condition Response

- Field Correctable
- Minor Noncompliance
- NCS Deficiency



IAPP and SGS

- Inadvertent Accumulation Prevention Program (IAPP)



IAPP and SGS

- Small Group Seminars (SGS)

