Event Details - Condition Report

Condition Report - CR-2014-001074

Properties

Number	CR-2014-001074
Class	eB CA\Incident Forms\Condition Report
Name	CONTAMINATION IDENTIFIED ON THE GROUND I
Description	ON 09/24/2014, AN 8-120 LINER WAS LOADED INTO AN 8-120B SHIPPING CASK IN THE SOUTH YARD. THE LINER WAS REMOVED FROM ONE OF THE RAD VAULTS WITHIN THE STORAGE ARRAY. THE FOLLOWING IS A BASIC SEQUENCE OF EVENTS THAT TYPICALLY OCCUR: THE RAD VAULT LID IS
StartDate	9/25/2014 10:24:23 AM
EndDate	11/13/2014
Approval Status	Approved

Attributes

Attribute	Value
Evaluation Due Date	3/20/2015
Evaluation/Review Sent To CR Owner	11/12/2014
Evaluator Comments	Evaluator comments as well as the Department Head, CAP Organization, and HU comments were incorporated into the ACE prior to MRC review and approval. RAF 11/13/14
SIG Level	SIG2
Assigned Evaluation	ACE
Evaluation Due Date	3/20/2015
Date/Time Initiated	9/25/2014
Brief Description	Contamination Identified on the ground in South Array During Waste Shipment
Detailed Description	On 09/24/2014, an 8-120 liner was loaded into an 8-120B Shipping Cask in the South Yard. The liner was removed from one of the rad vaults within the storage array. The following is a basic sequence of events that typically occur: The Rad vault lid is removed and liner is disengaged from the overpack. The liner is withdrawn into the T-Bell. The bottom of the liner is perforated to allow water to drain out when removing from the Reactor Cavity; therefore, there is a high potential for loose contamination on the bottom of the liner that is no longer covered. At this point the T-Bell/liner is moved over the north side of the array and set down upon herculite or similar covering the asphalt. The overpack in the rad vault is inspected for residual water. If water is identified, it is removed and controlled. The overpack is then picked up and moved over to the north side of the array. A secondary enclosure (bag) is placed around the overpack and secured then the overpack/bag is placed inside of the shipping cask which is on the truck trailer. The T-Bell/liner is then moved over the top of the shipping cask and the liner is lowered into the overpack/bag until fully engaged. The T-Bell is then set back on the herculite. The secondary enclosure (bag) is sealed around the liner/overpack within the shipping cask. The placement of the secondary enclosure is required by the 8-120B shipping cask Certificate of Compliance. Mock-ups were performed last year with empty liner/overpack combinations as an ALARA tool. Placement of the bag around the liner/overpack when together is not feasible due to relatively high contact dose rates exceeding 100 R/hr. Placement of the bag inside the shipping cask then lowering the liner/overpack into the bag was also not feasible due to the amount of time spent controlling the bag during lowering and the high contact dose rates. This process also resulted in ripping the bag. Newer bags are currently being used that are looser fitting reducing the risk of tearing if that method was used. However, the risk of tearing still exists and would not be realized until the package reaches its destination. Therefore, that method is still not deemed feasible due to risk of secondary closure failure and inability to verify integrity. The most ALARA method was to disengage the liner from the overpack and place the bag around the overpack then place the overpack into the shipping cask. This allows personnel to take their time with the secondary enclosure and not accumulate additional dose. It does require some additional dose to disengage the liner from the overpack but this dose is a small fraction of what would be accumulated using other methods. A covering on the bottom of the T-Bell could be used for both movements, but this was deemed not ALARA due to the dose taken to install and remove the covering.

	Also, the risk of spread of contamination during removal of the covering exceeds the risk of spread of contamination during movement of the liner uncovered. RP and Waste Operations are aware of the potential for any loose material to fall from the liner during the two moves. RP controls the area, monitors personnel and surveys the travel path, as well as, adjacent areas outside the travel path. The condition identified in this CR was known, was briefed and was handled appropriately. EN-ZN-407 was entered for release of radioactive material to the soil in the South Yard near the rad vault array. Control room was notified. There were multiple slivers/chips identified on the ground in the travel path of the liner between the rad vault and the shipping cask. Slivers/particles were in the range of 50k dpm to 7 million dpm. RP identified the material via routine survey at the end of evolution. All material was collected and returned into the main RCA. The travel path was resurveyed as well as adjacent areas after cleanup and area was cleared. There was one PCE of 30k dpm on an individu
Immediate Actions	Surveyed area, identified and remediated RAM.
Recommended Actions	Close to Actions Taken.
Date Discovered	9/24/2014
Issue Identified By	Initiator
Related Documents	The completion of the CR and its associated CA was acceptable. RAF 11/13/14
Date/Time Reviewed	9/25/2014
Maintenance Rule Applicable?	No
Reportability Applicable?	No
Operability Review Required?	No
Immediate Actions Taken?	Yes
Immediate Actions Description	When notified of the issue on 9/24/14, entered EN-ZN-407, Response To Inadvertent Releases Of Licensed Materials To Groundwater, Surface Water Or Soil and ZAP-110-07, Significant Event Reporting. Performed reportability review per LS-AA-1120 and LS-MW-1320 based on information provided by RP and determined as non-reportable.
Work Request Initiated?	No
50.75G Issue	Yes
7230D Issue	No
MRC Review Meeting Date	11/12/2014
MRC Approval	Yes
MRC Comments	The ACE was reviewed and approved by the MRC on 11/12/14. See the attached file under CA001. There were three MRC comments regarding the ACE; 1) Correct typos and grammar, 2) Add Event Code, and 3) Add completed Planned Action 3. There were no open actions to enter into eB Nuclear. RAF 11/13/14
All Required CAs Complete?	Yes
All Required Documentation Attached?	Yes
CA Completion Appears To Satisfy CR Intent	Yes
Event Date	9/24/2014
Message	- Have Cause Codes been assigned to CR? - Have Event Codes been assigned to CR? - Have related Documents been linked to CR?
Scheduled Completion Date	3/23/2015
Stage	Closed
Trend Status	Active

Events

Relationship	Code	Name	Start Date	End Date	Approval Status
Corrective Action	CR-2014-001074-CA001	CONDUCT ACE - CONTAMINATION IDENTIFIED O	9/29/2014	11/13/2014	Approved
Condition Report	CR-2014-001074	CONTAMINATION IDENTIFIED ON THE GROUND I	9/25/2014	11/13/2014	Approved
Condition Report	CR-2014-001074	CONTAMINATION IDENTIFIED ON THE GROUND I	9/25/2014	11/13/2014	Approved

Responsibilities

ResponsibilityType	Organization Code	Organization Name	Person Code	Person Name
CR Owner	DCSF	DCS Fuel	RAFLAHIVE	Flahive, Roger
Initiator	RP	ESH - Radiation Protection	RCKEENE	Keene, Chris
Shift Manager	EXLN	Exelon	MARK.BITTMANN	Bittmann, Mark

WorkOrders

Number	Name	Class	Status
CR-2014-001074	CR-2014-001074	Condition Report	Completed

Code	Description	Person	Start Date	End Date
INITIATION	CR Initiation	Chris RC Keene	9/25/2014	9/25/2014
OP REVIEW	Operations Review	Mark MJ Bittmann	9/25/2014	9/25/2014
SCREENING	CR Screening	Roxanne RXH Hendrickson	9/29/2014	9/29/2014
SIG 2	Sig 2 - Owner Assignment	Roxanne RXH Hendrickson	9/29/2014	9/29/2014
CAUSE EVALUATION	Cause Evaluation	Roger R Flahive	9/29/2014	11/13/2014
MRC REVIEW	MRC Review	Roger R Flahive	11/13/2014	11/13/2014
CAPTURE CA	Capture Apprd Cas	Roger R Flahive	11/13/2014	11/13/2014
PEND CA COMPLETION	Pend CA Completion	Roger R Flahive	11/13/2014	11/13/2014
VERIFY AND CLOSURE	Verify & Closure	Roger R Flahive	11/13/2014	11/13/2014

Trends

Group Code	Group Name	Code	Name
CC-0001	Cause Codes	A3-B2-C04	Previous success in use of rule reinforced continued use of rule
EC-0001	Event Codes	03E	Radiation Protection – Equipment or area contamination event

Event Details - Corrective Actions

Corrective Action - CR-2014-001074-CA001

Properties

Number CR-2014-001074-CA001

Class eB CA\CAP Actions\Corrective Actions

Name CONDUCT ACE - CONTAMINATION IDENTIFIED O

StartDate 9/29/2014

EndDate 11/13/2014

Approval Status Approved

Scope Global

Attributes

Attribute	Value
CA Due Date	11/3/2014
CA Description	Conduct ACE - Contamination Identified on the ground in South Array During Waste Shipment CR-2014-001084 and CR 2014-001090 have been closed to this ACE.
CA Owner Comments	See the attached supporting file for the FINAL ACE that was reviewed and approved by MRC on 11/12/14. RAF 11/12/14
Stage	Closed

WorkOrders

Number	Name	Class	Status
CR-2014-001074-CA001	CR-2014-001074-CA001	Corrective Actions	Completed

Code	Description	Person	Start Date	End Date
ASSIGN OWNER	CA Owner Assignment	Roxanne RXH Hendrickson	9/29/2014	9/29/2014
COMPLETE CA	CA Completion	Chris RC Keene	11/5/2014	11/5/2014
REVIEW CA	CA Review	Roger R Flahive	11/13/2014	11/13/2014

Files

Document	File
TMP14-2279	ACE-2014-001074 Spread of Contamination - Post MRC FINAL.pdf
TMP14-2279	Ariel Views.pdf