LER - CANCELLED - Farley Unit 1 - Failure to Meet a Technical Specification Completion Time for Reportability- (related to RCS B Train Delta T instrumentation scaling data and placing channels in trip within 72 hours) - LER CANCELLED

Issue ID **7973** Created **08/04/2015** Screened **10/19/2015** Last Updated **10/19/2015**

Sources
LER

Region
Region 2

Dockets
Farley 1

PN #
None

IRS Report
None

Components
None

Systems
None

Comm Groups
None

TRGs
HUMAN PERF/SAFETY CULTURE, OTHER

INPO Doc
None

Other Document
LER CANCELLATION LETTER

LER Info

Event Date
5/17/2015

Submitted Date
7/16/2015

Issued Date
7/16/2015

LER Number
2015003

Revision Number
00

LER Description
None

Comments
None

Description

Justification of Cancellation for Unit 1 Licensee Event Report 2015-003-00 The subject Unit 1 Licensee Event Report (LER) 2015-003-00, submitted July 16, 2015 under Southern Nuclear Operating Company (SNC) letter NL-15-1288, reported that the 72 hour completion time for placing the Reactor Coolant System (RCS) B Train Delta T instrumentation in the trip position per Technical Specification (TS) 3.3.1 Limiting Condition for Operation (LCO) Condition E was exceeded. This apparent oversight of not meeting the 72 hour completion time occurred when the entry time for the action statement was not properly tied to the initial collection of scaling data. However, it has been determined upon further evaluation that SNC had, in fact, met the requirements of the TS and was never in a condition prohibited by TS. Although the Delta T channel was not placed in the trip position until after 72 hours from the initial collection of scaling data, it was placed in the trip position prior to the 78 hour shutdown time. NUREG 1022, Revision 3, Section 3.2.2 on page 19, Limiting Conditions for Operation states, in part: An LER is required if a condition existed for a time longer than permitted by TS (i.e., greater than the total allowed restoration and shutdown outage time (or completion time in STS))... Using this guidance, the allowed restorative time is 72 hours; placing the channel in trip is considered restorative since there are no additional actions required once the channel is placed in trip. The shutdown outage time is the additional 6 hours to be in

MODE 3 and the total completion time is 78 hours. Therefore, since the channel was placed in the trip condition prior to exceeding the completion time of 78 hours, an LER is not required. Send LER to TRG for Human Peformance (Molly Keefe), assigned to Mark King.

EN - MIllstone Unit 2 - HIGH ENERGY LINE BREAK DOOR DISCOVERED OPEN - (was left open for ~ 1 hour and then immediately restored upon discovery)

Issue ID **8927** Created **04/28/2016** Screened **04/28/2016** Last Updated **04/28/2016**

Sources
EN

Region
Region 1

Dockets
Millstone 2

PN #
None

IRS Report
None

Components
None

Systems
AFW

Comm Groups
None

TRGs
AFW, HUMAN PERF/SAFETY CULTURE, ENVTL. QUALIF.

INPO Doc
None

Other Document
None

EN Info

Event Date
4/27/2016

Submitted Date
4/28/2016

EN Number
51889

Event Description
Power Reactor

Description

On April 27, 2016 at 20:07 [EDT], a high energy line break (HELB) door between the turbine driven auxiliary feedwater pump and the motor driven auxiliary feedwater pump rooms was discovered open and unattended. In the event of a HELB, this condition could have rendered both trains of auxiliary feedwater inoperable. The boundary was not operable for approximately 1 hour. Upon discovery, the door was closed restoring the boundary. This event is being reported pursuant to 10 CFR 50.72(b)(3)(v) as any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to: (B) Remove residual heat; and (D) Mitigate the consequences of an accident. The NRC Senior Resident Inspector has been notified. he Licensee notified the Connecticut DEEP and Waterford Dispatch. Send EN info to TRG for AFW (Larry Wheeler), EQ (Jeffrey Jacobson), and Human Performance (Molly Keefe) assigned to Mark King.

LER - Oyster Creek Unit 1 - Manual SCRAM Inserted due to Leakage from the 'D' Reactor Recirculation Pump Seal

Issue ID **9171** Created **07/14/2016** Screened **07/14/2016** Last Updated **07/14/2016**

Sources
LER

Region
Region 1

Dockets
Oyster Creek

PN #
None

IRS Report
None

Components
MOT-DRIVEN CENT. PUMP, MOT-DRIVEN PUMP

Systems
RCS

Comm Groups
None

TRGs
HUMAN PERF/SAFETY CULTURE, PUMP & VALVE, OTHER

INPO Doc
None

Other Document
None

LER Info

Event Date
4/30/2016

Submitted Date
6/29/2016

Issued Date
6/29/2016

LER Number
2016003

Revision Number
00

LER Description
None

Comments
This LER 2016003 00 was closed out in report 2Q2016002.

Description

On April 30, 2016, at 1804 hours, during the plant startup following the 1M38 maintenance outage, a reactor SCRAM was manually inserted by the Control Room Operators during post maintenance testing following work on the 'D' Reactor Recirculation Pump (RRP) mechanical seal. The SCRAM was initiated since leakage was discovered by a rising trend in drywell unidentified leakage during plant startup. The seal had been replaced during the maintenance outage. The SCRAM was selected as the preferred method of shutting down the reactor due to low decay heat conditions following the outage. Cause: Following the SCRAM and during the disassembly of the 'D' RRP, when removing the pump half coupling keys the shaft sleeve 0-ring was found extruding on top of the back-up ring. Upon further disassembly the 0-ring was found to be cut, and an approximately one-inch piece of the 0-ring was found sitting on top of the back-up ring, which lead to the leakage from the seal cavity. The Root Cause of the event was determined to be that the seal rebuild procedure was not properly revised in 2012 to prevent this failure from occurring. ENS # 51895 was submitted on April 30, 2016, as required by 10 CFR 50.72 (b)(2)(iv)(B). This issue is reportable under 10 CFR 50.73(a)(2)(iv)(A), for any event or condition that resulted in manual or automatic actuation of any of the systems listed in paragraph 10 CFR 50.73(a)(2)(iv)(B). Send info to TRG for Pump and Valve (Michael Farnan), Human Performance (Molly Keefe) and IOEB Scram Trend POC (Rebecca Sigmon), assigned to Mark King.

LER - Peach Bottom Unit 2 - Leak in High Pressure Service Water Pipe Results in Condition Prohibited by Technical Specifications - (could have failed in seismic event causing flooding in RHR pump room)

Issue ID **9596** Created **11/22/2016** Screened **11/22/2016** Last Updated **11/22/2016**

Sources
LER

Region
Region 1

Dockets
Peach Bottom 2

PN #
None

IRS Report
None

Components
None

Systems
None

Comm Groups
None

TRGs
FLOODING/MISSILES, PRI MATL/VSL/WELD, SERVICE WATER/UHS, OTHER

INPO Doc
None

Other Document
None

LER Info

Event Date
9/12/2016

Submitted Date
9/12/2016

Issued Date
9/12/2016

LER Number
2016001

Revision Number
00

LER Description

On September 12, 2016, an engineering evaluation concluded that a flaw identified on a 1" diameter stainless steel pipe associated with the high pressure service water (HPSW) system could have failed during a seismic event. Failure of the pipe would cause flooding of the '2C' residual heat removal (RHR) pump room and impact operation of equipment in the room if needed during a design basis event. The 1) diameter pipe suppliessample water to the '2C' HPSW radiation monitor sample pump. The flaw was identified on August 16, 2016, when a 120 drop per minute leak was observed. The leak was the result of a crack located in the pipe at the toe of a fillet weld connecting the pipe to a coupling on an 18" diameter pipe that returns HPSW water to the plant discharge canal.

There were no actual consequences as a result of the leak. The pipe was replaced at the equipment was returned to service.

Comments

On September 12, 2016, an engineering evaluation concluded that a flaw identified on a 1" diameter stainless steel pipe associated with the high pressure service water (HPSW) system could have failed during a seismic event. Failure of the pipe would cause flooding of the '2C' residual heat removal (RHR) pump room and impact operation of equipment in the room if needed during a design basis event. The 1) diameter pipe suppliessample water to the '2C' HPSW radiation monitor sample pump. The flaw was identified on August 16, 2016, when a 120 drop per minute leak was observed. The leak was the result of a crack located in the pipe at the toe of a fillet weld connecting the pipe to a coupling on an 18" diameter pipe that returns HPSW water to the plant discharge canal.

There were no actual consequences as a result of the leak. The pipe was replaced at the equipment was returned to service.

Description

On 9/12/16 (while at 100% power), an engineering evaluation concluded that a flaw identified on a 1" diameter stainless steel pipe associated with the High Pressure Service Water (HPSW) System could have failed during a seismic event. Failure of the pipe would cause flooding of the '2C' Residual Heat Removal (RHR) pump room and impact operation of equipment in the room if needed during a design basis event. The 1" diameter pipe supplies sample water to the '2C' HPSW radiation monitor sample pump. The flaw was identified on 8/16/16 when a 120 drop per minute leak was observed. The leak was the result of a crack located in the pipe at the toe of a fillet weld connecting the pipe to a coupling on an 18" diameter pipe that returns HPSW water to the plant discharge canal. [The analysis concluded that the leak was caused by fatigue cracking caused by cyclic loading conditions, such as vibration. The 1-inch pipe was anchored to the wall a short distance from its connection to the 18" diameter HPSW line.] The pipe was replaced and the equipment was returned to service. There were no actual consequences as a result of the leak. Send LER info to TRG for SW (Gerard Purciarello), Flooding (Steve Jones and POCs Christopher Cook, Pete Chaput, Samantha Crane) and Primary Materials/ Welding (Keith Hoffman), assigned to Mark King.

OpE COMM at ML15155B312, posted 6/3/2015

Search for "Creusot" ("cruesot" also searched – no new entries)

ROE 7973 (created 8/12/2015)

After review by Clearinghouse, no further action required at this time as a result of low safety significance.

<!--

RE: update for recent OpE COMM - NO ACTION ITEM

THIS IS A REMINDER FOR CLEARINGHOUSE DISCUSSION - to make final decision on this topic.

RE: the list of plants with these heads… and the statementt… discussions on this end with Ed Roach and Mike Cheok and it appears that the NRC (or at least some staff on our side) does not share the same level of concern that ASN has.

So I recommend that Dan at least update his OpE COMM to reflect the existing plants with replacement heads manufactured by Framatome/AREVA according to online sources which are:

North Anna 1& 2, Crystal River 3, Surry 1, Turkey Point 3 & 4, ANO 1, Salem 1 & 2, St. Lucie 1, Davis-Besse, Diablo Canyon 1 & 2, and Callaway

(and add Prairie Island 1 and 2)

Not sure why Prairie Island 1 and 2 is missing from this list above or how accurate (and what the source of this info is??)… but I guess adding it is better than nothing – right – in case questions or concerns come up in the future in this regards. We can discuss at Clearinghouse on Thursay

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This OpE COMM was posted by Dan Pasquale -see OpE COMM in ADAMS (ML15155B312)

Flamanville 3 –

Reactor Vessel Manufacturing Anomalies Affecting Material Toughness (Ductility)

Summary

France's nuclear safety authority, Autorite De Surete Nucleaire (ASN), was notified by AREVA of an anomaly in the composition of the steel in certain zones of the reactor pressure vessel (RPV) upper and bottom heads of the Flamanville, Unit 3 nuclear power plant currently under construction in France. See related ASN press communique and Information Notice titled, "Technical clarifications concerning the manufacturing anomalies on the Flamanville EPR

reactor pressure vessel". Flamanville Unit 3 is an Evolutionary Power Reactor (EPR) designed by Areva.

NRO is not aware of any Reactor vessel heads forged by Cruesot being shipped to U.S. plants under construction, and NRR is unaware of any existing U.S. plants with either original or replacement reactor vessel heads that were manufactured by Creusot Forge.

This OpE COMM is being distributed to the following groups:

Containment; ECCS; Inspection Programs; Main Steam & Condensate/Feed Systems; Materials & Aging; New Reactors; QA & Vendor Issues; RCPB Leakage; Reactor Vessel & Pressurizer; Safety Culture; SIT & AIT; Structural; Welding & Non-Destructive Examination; All COMMs

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ROE 8927 (screened 5/9/2016)

From: http://www.french-nuclear-safety.fr/Information/News-releases/Irregularities-concerning-components-manufactured-in-its-Creusot-Forge-plant

Nuclear Safety Authority (ASN), an independent administrative authority for France - for regulating nuclear safety and radiation protection in order to protect workers, patients, the public and the environment from the risks involved in nuclear activities in France. It also contributes to informing the citizens. .

Issued 04/05/2016 11:00 am as a Note of information - AREVA has informed ASN of irregularities concerning components manufactured in its Creusot Forge plant

Following the detection of an anomaly on the Flamanville EPR reactor vessel, and at the instigation of ASN, AREVA initiated in April 2015 a quality review on the manufacturing work carried out in its Creusot Forge plant. Its conclusions were sent to ASN in October 2015.

ASN considered that this relatively superficial review, which only went back as far as 2010, was insufficient and did not give a complete picture of the organisation and practices at Creusot Forge, the quality of the parts produced and the safety culture prevailing within the plant. At the end of 2015, ASN asked AREVA to take the process further and go back to at least 2004, which was when the first parts intended for the EPR were manufactured.

On 25th April 2016, AREVA informed ASN of the initial results of this additional analysis. They revealed irregularities in the manufacturing checks on about 400 parts produced since 1965, about fifty of which would appear to be in service in the French NPPs. These irregularities comprise inconsistencies, modifications or omissions in the production files, concerning manufacturing parameters or test results.

ASN asked AREVA to send it the list of parts concerned as rapidly as possible, along with its assessment of the consequences for the safety of the facilities, jointly with the licensees concerned.

The review process will need to be seen through to completion in order to assess all the anomalies which may have affected past manufacturing operations and draw any relevant conclusions regarding the safety of the facilities.

This ASN Note of information was Last updated : 04/05/2016.

<u>Send info to TRG for NRO (Al Issa), Primary Materials/ Vessel/ Welding (Keith Hoffman), QA/Vendor (Dan Pasquale, Tom Kendzia, Paul Prescott, Aaron Armstrong), and our CFSI POC (Jim Gaslevic), IOEB International POC (Rebecca Sigmon), assigned to Mark King.</u>

ROE 9171 (screened 7/21/2016)

Copyright Nuclear News Flashes - French regulator's suspension of certificate could delay unit's restart

EDF's 900-MW Fessenheim-2 nuclear reactor might remain shut beyond the end of its scheduled maintenance after French nuclear safety authority ASN said July 19 it had suspended a certificate for one of the reactor's steam generators, which has several anomalies that were discovered in June.

ASN issues test certificates for the most important nuclear equipment. The certificates are required for the commissioning of the equipment. The suspension of the test certificate, ASN said, would result in Fessenheim-2 remaining shut until Areva NP — the reactor unit of Areva and owner of the Creusot Forge — demonstrates the steam generators can meet the regulatory standards.

EDF shut the reactor June 13 for scheduled maintenance that was slated to last until August 29 and submitted to ASN its preliminary analysis of the mechanical integrity of the generator June 15.

ASN said in June that 85 irregularities in about 10,000 Le Creusot fabrication files had been found involving components at 21 of EDF's 58 operating reactors, including the anomaly at Fessenheim-2. Le Creusot Forge manufactures forgings and castings for large components of nuclear reactors.

ASN said in the statement it asked Areva NP to send the agency details on how it intends to rectify the steam generator's problems.

Separately, Areva said in a statement July 19 that it acknowledged "ASN's decision dated July 18, 2016, taken as a precautionary measure, to suspend the test certificate on the secondary part of this component."

Areva NP said it was continuing its analysis in order to identify the appropriate measures to secure the lifting of the suspension, although previous technical analyses conducted by Areva NP experts had concluded, at this stage, that the irregular findings were not detrimental to operational safety.

"However, in order to substantiate the robustness of the case, a similar part has just been cast and forged at Le Creusot plant to validate its mechanical and chemical characteristics," Areva said in the statement. It is not yet clear how long Areva's analysis will take.

Forward this news item on a suspended certificate for one of the reactor's steam generators, which has several anomalies that were discovered in June, in a French plant - EDF's 900-MW Fessenheim-2 to TRG lead for SGs (Ken Karwoski); NRO (Al Issa/Dan Pasquale) and QA/Vendor-CFSI (James Gasleivic) are already aware. Assigned to Mark King - completed.

<!--

EMAIL CHAIN 7/20/2016

TO: Ken Karwaoski

From Mark King

Forwarding this news item on a suspended certificate for one of the reactor's steam generators, which has several anomalies that were discovered in June, in a French plant - EDF's 900-MW Fessenheim-2.

To: our TRG lead for SGs - Ken Karwoski. See news item below.

FYI

From: Issa, Alfred

Sent: Wednesday, July 20, 2016 8:18 AM

To: Makar, Gregory <Gregory.Makar@nrc.gov>; Mitchell, Matthew <Matthew.Mitchell@nrc.gov>

Cc: King, Mark <Mark.King@nrc.gov>; Gaslevic, James <James.Gaslevic@nrc.gov>; Pasquale, Daniel <Daniel.Pasquale@nrc.gov>

Subject: FW: French regulator's suspension of certificate could delay unit's restart

FYI only; no action required.

From: Webb, Michael

Sent: Wednesday, July 20, 2016 8:12 AM

To: Kavanagh, Kerri <Kerri.Kavanagh@nrc.gov>; Kendzia, Thomas <Thomas.Kendzia@nrc.gov>; Issa, Alfred <Alfred.Issa@nrc.gov>

Subject: French regulator's suspension of certificate could delay unit's restart

FYI.

Copyright Nuclear News Flashes - French regulator's suspension of certificate could delay unit's restart

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"However, in order to substantiate the robustness of the case, a similar part has just been cast and forged at Le Creusot plant to validate its mechanical and chemical characteristics," Areva said in the statement. It is not yet clear how long Areva's analysis will take.

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Search for Areva (only pertinent information included)

ROE 7473 (screened 4/14/2015)

In a problem for Areva's new nuclear project in France and potentially for the company's other reactor projects overseas, France's nuclear regulator said last week that tests have shown abnormally high carbon concentration that point to "lower than expected levels of toughness" in portions of forged steel on the top and bottom of a reactor under construction at the Flamanville nuclear plant.

In an April 7 press release, the French Nuclear Safety Authority (NSA) said it is currently working with Areva, the French government-controlled reactor vendor, to further evaluate the extent of the problem at Flamanville, where Areva is already over budget and behind schedule in building its flagship EPR reactor. Areva began building the 1,650-megawatt reactor, located on the coast of Northwest France, in 2007 for Electricite de France (EDF), the state-owned power company.

The NSA suggested the anomalies found at Flamanville involve whether the reactor vessel head and bottom—spherical steel caps on the top and bottom of the reactor—are vulnerable to cracking, especially during thermal shock, a regular occurrence in nuclear plants as cooling water is injected into reactor cores to prevent overheating.....

Full story available as lead story on pages 1 and 3 at:

http://www.internal.nrc.gov/IRM/LIBRARY/ejournal/pdf/ed/ed150414.pdf

<u>Send info to TRG for Primary Materials/ Vessel (Keith Hoffman, POC Bob Hardies) and NRO (Al Issa), assigned to Mark King - completed.</u>

US Nuclear Regulatory Commission

ROE Issue Tracking Issue List

Issue ID: 7473

Issue Description: NEWS ITEM - French regulator flags metal toughness problem in new Areva reactor - ENERGY DAILY - lead story for Tuesday, April 14 2015

Issue Text: In a problem for Areva's new nuclear project in France and potentially for the company's other reactor projects overseas, France's nuclear regulator said last week that tests have shown abnormally high carbon concentration that point to "lower than expected levels of toughness" in portions of forged steel on the top and bottom of a reactor under construction at the Flamanville nuclear plant.

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<u>Send info to TRG for Primary Materials/ Vessel (Keith Hoffman, POC Bob Hardies) and NRO (Al Issa), assigned to Mark King - completed.</u>

Issue Attributes:

Create Date: 04/14/2015 10:31:50

Last Update Date: 04/14/2015 13:47:31

Source:
News Media

Screening Decision: Level 1

Cont. to Follow? No

TRG:
NRO
PRI MAT'L/VSL/WELD

Final Disposition:
Sent to TRG

US Nuclear Regulatory Commission

ROE Issue Tracking Issue List

Issue ID: 7535

Issue Description: Regional Call Item - Harris site - is indicating that Areva has found error in its head crack growth rate calculation method used - no official report issued so far by Harris or Areva

Issue Text: Region II morning call (4/29/2015) reported preliminary verbal information regarding the Harris reactor vessel head crack growth calculation used related to recent repairs and long term evaluation. It had an error in the calculational method used by Areva. Instead of the acceptable crack growth (~.89 inches) over 30 years as predicted earlier, the new correction in this calculation may make the acceptable years much shorter (on the order of ~ 20 years, exact amount still to be determined).

This error may apply to other plants that Areva did calculations for as well.
Will continue to follow to get more details.

<u>Send to TRG for Primary Materials/ Vessel/ Welding (Keith Hoffman / POC Jay Collins), and QA / Vendor (Dan Pasquale, Paul Prescott, Aaron Armstrong, Thomas Kendzia)
assigned to Mark King.</u>

<!--
From PITA for 4/30/2015 HARRIS UNIT 1:
Nozzle repairs are continuing for 3 reactor vessel head nozzles. NRR and Region-II DRS (Al Butcavage) are providing assistance in evaluating a condition that resulted from the licensee over-boring nozzle #23 during repair.

CTF - determine generic applicablity?... and get more details on this issue.

Update - SHEARON HARRIS NUCLEAR POWER PLANT - NRC INTEGRATED
INSPECTION REPORT 05000400/2015002 for dates April 1, 2015 through June 30, 2015 and with input from NRC inspector A. Butcavage, Reactor Inspector (Section 1R08) which indicates - No findings were identified.
The report also reviews and (Closed) LER 05000400/2015-003-00; Reactor Pressure Vessel Head Penetration Nozzle Indications Requiring Repair Attributed to Primary Water Stress Corrosion Cracking - On April 7, 2015, with the unit shutdown, the reactor vessel head penetration nozzles were examined during a scheduled refueling outage. Ultrasonic examinations identified indications that required repairs to three head penetration nozzles (nozzles 14, 18, and 23). This issue is discussed in more detail in Section 1R08 of this report. The inspectors reviewed the LER for accuracy and appropriateness of corrective actions. This LER is closed.
SEE
http://adamswebsearch.nrc.gov/webSearch2/view?AccessionNumber=ML15210A390

Sent email to Al Butcavage to see if any further actions are anticipated on this issue, 10/6/2015, Mark King. Al indicated in response...that... "John Tsao at headquarters may be able to shed some light on it, as he reviewed Areva calcs, as I recall." - Al
---
Email from John Taso (to Mark King and Al Butcavage) on this issue on 10/10/2015 stated:
Mark/Al,
Last Monday October 5, 2015, I completed a supplemental safety evaluation (SE) for Shearon Harris. The purpose of the Supplemental SE was to close out the calculation error issue in the AREVA calculation for the flaw growth in the RPV head as part of CRDM repair at Shearon Harris in April 2015.

The Supplemental SE is to address 3 other relief requests that involved in the repair of CRDM nozzles at Shearon Harris in relief requests RR I3R-09, I3R-11, and I3R-13 which we have approved in 2012, 2013 and 2014. I found that the calculation error does not affect NRC's conclusion in the SE for those 3 relief requests.

As of now, I do not plan to review the impact of the calculation error issue on plants other than Shearon Harris. No one has asked me to do so.

My supplemental SE is with my boss Dave Alley, waiting for his concurrence since Monday, 10/5/2015. Dennis Galvin of DORL did a peer review of my SE and he will handle the issuance of the supplemental SE.
JOHN TASO
NRR SR. MATERIALS ENGINEER, COMPONENT PERF, NDE, & TEST BR
301-415-2702

BASED ON ABOVE RECOMMMEND THAT THE CONTINUE TO FOLLOW (CTF) be removed.
Clearinghouse concurred on removing CTF on 10/20/2015.
I would assume Areva has already contacted any of its customers and informed them of this issue and confirmed the calculation error had no safety signifiicant impact on those plants, as well. We do not know which other plants are potentially impacted. Consider if we also forward this update info to the previousTRG/POCs from earlier clearinghouse screeing back on 4/30/2015?
-->

Issue Attributes:

Create Date: 04/29/2015 12:14:13

Last Update Date: 10/20/2015 14:25:59

Region: 2

Facility: Harris (HAR)

Dockets:
- 05000400 Harris 1
- 05000401 Harris 2

Source:

US Nuclear Regulatory Commission

ROE Issue Tracking Issue List

Regional Call

System:
RCS

Screening Decision: Level 1

Cont. to Follow? No

TRG:
PRI MAT'L/VSL/WELD
QA/VENDOR/CFSI

Final Disposition:
Sent to TRG

US Nuclear Regulatory Commission

ROE Issue Tracking Issue List

Issue ID: 7973

Issue Description: Request to update recent OpE COMM with US plants with AREVA RV head manufacturer info ---OpE COMM in ADAMS (ML15155B312) Reactor Vessel Manufacturing Anomalies Affecting Material Toughness (Ductility)- Flamanville 3 issue

Issue Text: After review by Clearinghouse, no further action required at this time as a result of low safety significance.

<!--
RE: update for recent OpE COMM - NO ACTION ITEM
THIS IS A REMINDER FOR CLEARINGHOUSE DISCUSSION - to make final decision on this topic.

RE: the list of plants with these heads… and the statementt… discussions on this end with Ed Roach and Mike Cheok and it appears that the NRC (or at least some staff on our side) does not share the same level of concern that ASN has.

So I recommend that Dan at least update his OpE COMM to reflect the existing plants with replacement heads manufactured by Framatome/AREVA according to online sources which are:

North Anna 1& 2, Crystal River 3, Surry 1, Turkey Point 3 & 4, ANO 1, Salem 1 & 2, St. Lucie 1, Davis-Besse, Diablo Canyon 1 & 2, and Callaway

(and add Prairie Island 1 and 2)

Not sure why Prairie Island 1 and 2 is missing from this list above or how accurate (and what the source of this info is??)… but I guess adding it is better than nothing – right – in case questions or concerns come up in the future in this regards. We can discuss at Clearinghouse on Thursay
---
This OpE COMM was posted by Dan Pasquale -see OpE COMM in ADAMS (ML15155B312)

Flamanville 3 –
Reactor Vessel Manufacturing Anomalies Affecting Material Toughness (Ductility)

Summary
France's nuclear safety authority, Autorite De Surete Nucleaire (ASN), was notified by AREVA of an anomaly in the composition of the steel in certain zones of the reactor pressure vessel (RPV) upper and bottom heads of the Flamanville, Unit 3 nuclear power plant currently under construction in France. See related ASN press communique and Information Notice titled, "Technical clarifications concerning the manufacturing anomalies on the Flamanville EPR reactor pressure vessel". Flamanville Unit 3 is an Evolutionary Power Reactor (EPR) designed by Areva.
NRO is not aware of any Reactor vessel heads forged by Cruesot being shipped to U.S. plants under construction, and NRR is unaware of any existing U.S. plants with either original or replacement reactor vessel heads that were manufactured by Creusot Forge.

This OpE COMM is being distributed to the following groups:

Containment; ECCS; Inspection Programs; Main Steam & Condensate/Feed Systems; Materials & Aging; New Reactors; QA & Vendor Issues; RCPB Leakage; Reactor Vessel & Pressurizer; Safety Culture; SIT & AIT; Structural; Welding & Non-Destructive Examination; All COMMs
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Issue Attributes:

Create Date: 08/12/2015 08:52:29

Last Update Date: 08/13/2015 13:48:26

Source:
News Media
Other

Screening Decision: Level 1

Cont. to Follow? No

Final Disposition:
No Action

US Nuclear Regulatory Commission

ROE Issue Tracking Issue List

Issue ID: 8583

Issue Description: News Item - Areva ready for peening of Byron - 2 vessel head - (during spring 2016 outatge for Byron-2 and Braidwood-1; and at Byron-1 and Braidwood-2 during the spring of 2017
)

Issue Text: NEWS ITEM *** Areva ready for peening of Byron-2 vessel head ***

Areva in April is planning to begin what it said will be the world's first use of ultra-high-ressure cavitation peening on an operating vessel head at Exelon's Byron-2 in Illinois, Areva said in a January 27 statement. The company said that the peening process enhances resistance to vessel head cracking "by using ultra-high-pressure water jets to generate vapor bubbles, which collapse with enough force to create beneficial compressive stresses on the components' internal surfaces. The result is a component with improved material properties and enhanced resistance to corrosion."

Areva spokesman Curtis Roberts said in an interview January 27 that workers spent four months preparing a mockup of the Byron-2 reactor vessel head at Areva's US Technical Training Center in Lynchburg, Virginia. Testing began in July and was completed in November, Roberts said.
"Everything has been worked through so we're ready to go when the time comes," Roberts said.

Areva is also scheduled to perform cavitation peening at three other Exelon reactors in Illinois: Byron-1 and Braidwood-1 and -2, it said. Exelon said the work on all four units will be done during scheduled refueling and maintenance outages. The work at Braidwood-1 will take place this fall, and at Byron-1 and Braidwood-2 in the spring of 2017.

Corrosion cracking in reactor vessel heads in the US nuclear fleet has resulted in heads being replaced at more than 40 currently operating US PWRs, NRC has said.

Source: Nuclear News Flashes Wednesday, Jan 27, 2016 Copyright Platts 2016, A Division of McGraw Hill Financial

<u>Send news item info to TRG for NRO (Dan Pasquale), Primary Materials/Vessel/Welding (Keith Hoffman)/other (Ken Karwoski), QA/Vendor (Paul Prescott, Tom Kendzia, Aaron Armstrong), assigned to Mark King.</u>

Issue Attributes:

Create Date: 01/28/2016 13:12:15

Last Update Date: 01/28/2016 14:45:28

Region: 3

Facility: Byron (BYRO)
Braidwood (BRAI)

Dockets:
05000456 Braidwood 1
05000457 Braidwood 2
05000454 Byron 1
05000455 Byron 2

Source:
News Media

Screening Decision: Level 1

Cont. to Follow? No

TRG:
NRO
OTHER
PRI MAT'L/VSL/WELD
QA/VENDOR/CFSI

Final Disposition:
Sent to TRG

US Nuclear Regulatory Commission

ROE Issue Tracking Issue List

Issue ID: 8927

Issue Description: International - (French manufacturer) AREVA has informed ASN of irregularities concerning components manufactured in its Creusot Forge plant (about 400 parts improperly produced, tested or documented)

Issue Text: From:
http://www.french-nuclear-safety.fr/Information/News-releases/Irregularities-concerning-components-manufactured-in-its-Creusot-Forge-pl

Nuclear Safety Authority (ASN), an independent administrative authority for France - for regulating nuclear safety and radiation protection in order to protect workers, patients, the public and the environment from the risks involved in nuclear activities in France. It also contributes to informing the citizens. .

Issued 04/05/2016 11:00 am as a Note of information - AREVA has informed ASN of irregularities concerning components manufactured in its Creusot Forge plant

Following the detection of an anomaly on the Flamanville EPR reactor vessel, and at the instigation of ASN, AREVA initiated in April 2015 a quality review on the manufacturing work carried out in its Creusot Forge plant. Its conclusions were sent to ASN in October 2015.

ASN considered that this relatively superficial review, which only went back as far as 2010, was insufficient and did not give a complete picture of the organisation and practices at Creusot Forge, the quality of the parts produced and the safety culture prevailing within the plant. At the end of 2015, ASN asked AREVA to take the process further and go back to at least 2004, which was when the first parts intended for the EPR were manufactured.

On 25th April 2016, AREVA informed ASN of the initial results of this additional analysis. They revealed irregularities in the manufacturing checks on about 400 parts produced since 1965, about fifty of which would appear to be in service in the French NPPs. These irregularities comprise inconsistencies, modifications or omissions in the production files, concerning manufacturing parameters or test results.

ASN asked AREVA to send it the list of parts concerned as rapidly as possible, along with its assessment of the consequences for the safety of the facilities, jointly with the licensees concerned.

The review process will need to be seen through to completion in order to assess all the anomalies which may have affected past manufacturing operations and draw any relevant conclusions regarding the safety of the facilities.

This ASN Note of information was Last updated : 04/05/2016.

<u>Send info to TRG for NRO (Al Issa), Primary Materials/ Vessel/ Welding (Keith Hoffman), QA/Vendor (Dan Pasquale, Tom Kendzia, Paul Prescott, Aaron Armstrong), and our CFSI POC (Jim Gaslevic), IOEB International POC (Rebecca Sigmon), assigned to Mark King.</u>

Issue Attributes:

Create Date: 05/05/2016 07:51:07

Last Update Date: 05/09/2016 13:44:02

Source:
- International
- News Media

System:
- RCS

Screening Decision: Level 1

Cont. to Follow? No

TRG:
- NRO
- OTHER
- PRI MAT'L/VSL/WELD
- QA/VENDOR/CFSI

Final Disposition:
- Sent to TRG

US Nuclear Regulatory Commission

ROE Issue Tracking Issue List

Issue ID: 9171

Issue Description: International News item France - French regulator's suspension of certificate could delay unit's restart

Issue Text:

Copyright Nuclear News Flashes - French regulator's suspension of certificate could delay unit's restart

EDF's 900-MW Fessenheim-2 nuclear reactor might remain shut beyond the end of its scheduled maintenance after French nuclear safety authority ASN said July 19 it had suspended a certificate for one of the reactor's steam generators, which has several anomalies that were discovered in June.

ASN issues test certificates for the most important nuclear equipment. The certificates are required for the commissioning of the equipment. The suspension of the test certificate, ASN said, would result in Fessenheim-2 remaining shut until Areva NP — the reactor unit of Areva and owner of the Creusot Forge — demonstrates the steam generators can meet the regulatory standards.

EDF shut the reactor June 13 for scheduled maintenance that was slated to last until August 29 and submitted to ASN its preliminary analysis of the mechanical integrity of the generator June 15.

ASN said in June that 85 irregularities in about 10,000 Le Creusot fabrication files had been found involving components at 21 of EDF's 58 operating reactors, including the anomaly at Fessenheim-2. Le Creusot Forge manufactures forgings and castings for large components of nuclear reactors.

ASN said in the statement it asked Areva NP to send the agency details on how it intends to rectify the steam generator's problems. Separately, Areva said in a statement July 19 that it acknowledged "ASN's decision dated July 18, 2016, taken as a precautionary measure, to suspend the test certificate on the secondary part of this component."

Areva NP said it was continuing its analysis in order to identify the appropriate measures to secure the lifting of the suspension, although previous technical analyses conducted by Areva NP experts had concluded, at this stage, that the irregular findings were not detrimental to operational safety.

"However, in order to substantiate the robustness of the case, a similar part has just been cast and forged at Le Creusot plant to validate its mechanical and chemical characteristics," Areva said in the statement. It is not yet clear how long Areva's analysis will take.

Forward this news item on a suspended certificate for one of the reactor's steam generators, which has several anomalies that were discovered in June, in a French plant - EDF's 900-MW Fessenheim-2 to TRG lead for SGs (Ken Karwoski); NRO (Al Issa/Dan Pasquale) and QA/Vendor-CFSI (James Gasleivic) are already aware. Assigned to Mark King - completed.

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EMAIL CHAIN 7/20/2016
TO: Ken Karwaoski
From Mark King

Forwarding this news item on a suspended certificate for one of the reactor's steam generators, which has several anomalies that were discovered in June, in a French plant - EDF's 900-MW Fessenheim-2.

To: our TRG lead for SGs - Ken Karwoski. See news item below.
FYI

From: Issa, Alfred
Sent: Wednesday, July 20, 2016 8:18 AM
To: Makar, Gregory <Gregory.Makar@nrc.gov>; Mitchell, Matthew <Matthew.Mitchell@nrc.gov>
Cc: King, Mark <Mark.King@nrc.gov>; Gaslevic, James <James.Gaslevic@nrc.gov>; Pasquale, Daniel <Daniel.Pasquale@nrc.gov>
Subject: FW: French regulator's suspension of certificate could delay unit's restart

FYI only; no action required.

From: Webb, Michael
Sent: Wednesday, July 20, 2016 8:12 AM
To: Kavanagh, Kerri <Kerri.Kavanagh@nrc.gov>; Kendzia, Thomas <Thomas.Kendzia@nrc.gov>; Issa, Alfred <Alfred.Issa@nrc.gov>
Subject: French regulator's suspension of certificate could delay unit's restart

FYI.

Copyright Nuclear News Flashes - French regulator's suspension of certificate could delay unit's restart

EDF's 900-MW Fessenheim-2 nuclear reactor might remain shut beyond the end of its scheduled maintenance after French nuclear safety authority ASN said July 19 it had suspended a certificate for one of the reactor's steam generators, which has several anomalies that were discovered in June.

ASN issues test certificates for the most important nuclear equipment. The certificates are required for the commissioning of the equipment. The suspension of the test certificate, ASN said, would result in Fessenheim-2 remaining shut until Areva NP — the reactor unit of Areva and owner of the Creusot Forge — demonstrates the steam generators can meet the regulatory standards.
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US Nuclear Regulatory Commission

ROE Issue Tracking Issue List

components of nuclear reactors.
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Areva NP said it was continuing its analysis in order to identify the appropriate measures to secure the lifting of the suspension, although previous technical analyses conducted by Areva NP experts had concluded, at this stage, that the irregular findings were not detrimental to operational safety.
"However, in order to substantiate the robustness of the case, a similar part has just been cast and forged at Le Creusot plant to validate its mechanical and chemical characteristics," Areva said in the statement. It is not yet clear how long Areva's analysis will take.

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Issue Attributes:

Create Date: 07/20/2016 09:43:37

Last Update Date: 07/21/2016 13:59:50

Source:
- International
- News Media
- NRO

System:
- MAIN STEAM

Screening Decision: Level 1

Cont. to Follow? No

TRG:
- NRO
- QA/VENDOR/CFSI

Final Disposition:
- Sent to TRG

US Nuclear Regulatory Commission

ROE Issue Tracking Issue List

Issue ID: 9620

Issue Description: AREVA NP Inc. - Interim Report for the Identification of an Issue Related to Fabrication Record Anomalies at Creusot Forge.

Issue Text: Interim Report of an Evaluation of a Deviation Pursuant to 10 CFR 21.21(a)(2)

On behalf AREVA NP SAS, AREVA NP Inc. is submitting this Interim Report for the identification of an issue related to fabrication record anomalies at Creusot Forge. This information is provided pursuant to the requirements of 10 CFR 21 to submit an Interim Report on issues for which the evaluation will not be completed within 60 days of discovery.

The evaluation completion schedule date is June 30, 2017. At this time, it does not appear that the fabrication record anomalies being evaluated could create a substantial safety hazard.

AREVA NP Inc.'s U.S. customers potentially affected by this issue have been notified.
<u>
Sent TRG Leads for Primary Materials / Vessels / Welding (Keith Hoffman), NRO (Al Issa / Dan Pasquale), QA & Vendor (Kendzia / Armstrong / Micewski) and to the Regional and New Construction OpE Coordinators. Assigned to Steve Pannier.</u>

Issue Attributes:

Create Date: 12/12/2016 12:01:34

Last Update Date: 12/12/2016 14:02:39

Source:
Part 21

Other Document: Part 21 No. 2016-0066-00

Screening Decision: Level 1

Cont. to Follow? No

TRG:
OTHER
PRI MAT'L/VSL/WELD
QA/VENDOR/CFSI

Final Disposition:
Sent to TRG

US Nuclear Regulatory Commission

ROE Issue Tracking Issue List

Issue ID: 9596

Issue Description: EN - Harris - Technical Support Center Ventilation System Out of Service Due to Failed Air Intake Fan

Issue Text: This is a non-emergency eight hour notification for a loss of Emergency Assessment Capability. This event is reportable in accordance with 10 CFR 50.72(b)(3)(xiii) as the discovered condition affects the functionality of an emergency response facility.

A condition impacting functionality of the Technical Support Center (TSC) Ventilation System was discovered on December 8, 2016, at 1330 [EST]. The issue involved a loss of the ability to maintain habitability of the TSC due to a failed outside air intake fan. The repair of the equipment failure is currently being planned.

If an emergency is declared requiring TSC activation during this period, the TSC will be staffed and activated using existing emergency planning procedures unless the TSC becomes uninhabitable due to ambient temperature, radiological, or other conditions. If relocation of the TSC becomes necessary, the Emergency Director will relocate the TSC staff to an alternate location in accordance with applicable site procedures. The secondary TSC has been notified that relocation may be necessary upon facility activation. This condition does not affect the health and safety of the public or station employees. The NRC Resident Inspector has been notified.

<u>Send to TRG for HVAC (Nageswara Karipineni) and EP (Jonathan Fiske). Assigned to Caty Nolan.</u>

<!-- INES Level 0 -->

Issue Attributes:

Create Date: 12/02/2016 12:13:34

Last Update Date: 12/14/2016 09:23:26

Region: 2

Facility: Harris (HAR)

Dockets:
05000400 Harris 1

Source:
EN

Event Notification: 52418

Screening Decision: Level 1

Cont. to Follow? No

TRG:
EP
HVAC/DOSE

Final Disposition:
Sent to TRG
z INES Level 0