



MAY 14, 2010

10 CFR 50.73

Docket No. 50-443

SBK-L-10086

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Seabrook Station

Licensee Event Report (LER) 2010-001-00

Emergency Air Cleanup System Inoperable due to Opening in Boundary

Enclosed is Licensee Event Report (LER) 2010-001-00. This LER reports an event that was discovered at Seabrook Station on March 17, 2010. This event is being reported pursuant to the requirements of 10 CFR 50.73(a)(2)(i)(B) and 50.73(a)(2)(v)(C).

Should you require further information regarding this matter, please contact Mr. Michael O'Keefe, Licensing Manager, at (603) 773-7745.

Sincerely,

NextEra Energy Seabrook, LLC

A handwritten signature in cursive script, appearing to read "Paul Freeman".

Paul Freeman
Site Vice President

cc: S. J. Collins, NRC Region I Administrator
G. E. Miller, NRC Project Manager
W. J. Raymond, NRC Senior Resident Inspector

IE33
NER

SBK-L-10086

Seabrook Station

Licensee Event Report (LER) 2010-001-00

Emergency Air Cleanup System Inoperable due to Opening in Boundary

Ross, M.	e-mail
Mashhadi, M.	e-mail
Brown, A.	e-mail
Dryden, M. S.	e-mail
Fernandez, A.	e-mail
Nicholson, L.	e-mail
Letter Distribution	e-mail
File 0018	GLC
RMD	OAV

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME Seabrook Station	2. DOCKET NUMBER 05000443	3. PAGE 1 OF 4
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4. TITLE Emergency Air Cleanup System Inoperable due to Opening in Boundary

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
03	17	2010	2010	- 001 -	00	05	14	2010	N/A	05000
									FACILITY NAME	DOCKET NUMBER
									N/A	05000

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)									
10. POWER LEVEL 100	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)						
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)						
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)						
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)						
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)						
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)						
<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)							
<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER							
<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A							

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME Michael O'Keefe, Licensing Manager	TELEPHONE NUMBER (Include Area Code) (603) 773-7745
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED YES (If yes, complete 15. EXPECTED SUBMISSION DATE) X NO	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On March 15, 2010 during operation in mode 1 at 100% power, both trains of the containment enclosure emergency air cleanup system (CEEACS) were rendered inoperable due to an opening in the ventilation area boundary. For approximately five hours on March 15 and approximately 4 hours on March 17, a door in the containment enclosure boundary (CEB) was opened to support planned maintenance activities in the positive displacement charging pump room. Under accident conditions, the CEEACS maintains a negative pressure in the enclosure surrounding the containment to prevent uncontrolled releases of radioactivity into the environment. However, the breach in the CEB created by the open door would have prevented both trains of the CEEACS from establishing the minimum required negative pressure in the enclosure. This condition placed the plant in Technical Specification (TS) 3.0.3, although it was unrecognized at the time, and resulted in a loss of safety function for the CEEACS. The causes of the event included lack of programmatic controls to ensure the control room is notified prior to propping open a CEB door and historical guidance that led the operators to believe that only TS 3.6.5.2, Containment Enclosure Boundary Integrity, applied when a CEB door was open. The planned corrective actions will strengthen an existing program to address opening CEB doors and revise the TS.

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17. NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

I. Description of Event

On March 15, 2010 during operation in mode 1 at 100% power, both trains of the containment enclosure emergency air cleanup system (CEEACS) [VC] were rendered inoperable due to an opening in the ventilation area boundary. For approximately five hours on March 15 and approximately 4 hours on March 17, 2010, a door in the containment enclosure boundary was opened to support planned maintenance activities in the positive displacement charging pump room. Under accident conditions, the CEEACS maintains a negative pressure in the enclosure surrounding the containment [NH] to prevent uncontrolled releases of radioactivity into the environment. However, the breach in the containment enclosure created by the open door would have prevented both trains of the CEEACS from establishing the minimum required negative pressure in the enclosure. This condition placed the plant in Technical Specification (TS) 3.0.3, although it was unrecognized at the time, and resulted in a loss of safety function for the CEEACS.

II. Cause of Event

The preliminary root cause evaluation for this event identified two causes. First, Operations personnel were not informed on March 15, 2010 that the containment enclosure boundary door was open, but they became aware of the condition on the following day at approximately 1100 when workers planned to resume the work activity that required opening the door. The cause of this condition was a lack of programmatic controls to ensure that the control room is notified prior to propping open a containment enclosure boundary door. Second, after Operations personnel became aware that the containment enclosure boundary door was open, only the 24-hour action statement of TS 3.6.5.2, Containment Enclosure Boundary Integrity, was applied to the condition. The cause of not considering the impact of the breach in the containment enclosure boundary on operability of the CEEACS was guidance that had been provided to Operations personnel since approximately 1990. This guidance established the position that the action of TS 3.6.5.2 was the only TS action that applied to an open containment enclosure boundary door.

III. Analysis of Event

The containment enclosure provides a low leakage rate barrier between the containment and the environment to control leakage from the containment boundary. The system is comprised of a structural barrier surrounding the containment and a CEEACS, which maintains a pressure lower than ambient in the enclosure to prevent uncontrolled releases of radioactivity into the environment.

Seabrook Technical Specification (TS) 3.6.5.1, Containment Enclosure Emergency Air Cleanup System, requires an operable CEEACS capable of producing a negative pressure greater than or equal to 0.25 inches water in the containment enclosure building within 4 minutes following a start signal ("T" signal actuation). TS 3.6.5.2, Containment Building Enclosure Integrity, requires maintaining containment enclosure integrity by verifying that doors into the enclosure are closed except during normal transit. Without containment enclosure building integrity, TS 3.6.5.2 allows 24 hours to restore integrity. However, a breach in the enclosure boundary due to an open door renders both trains of CEEACS incapable of meeting the surveillance requirement in TS 3.6.5.1 for establishing a negative pressure in the containment enclosure. Consequently, an open door in the containment enclosure boundary renders both trains of the CEEACS inoperable. While TS 3.6.5.2 allows up to 24 hours to restore containment enclosure building integrity, TS 3.6.5.1 does not address the condition in which both CEEACS trains are inoperable due to a breach in the containment enclosure boundary; therefore, this condition requires entry into TS 3.0.3 (orderly shutdown of the unit).

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The on-shift licensed operators were not informed that the containment enclosure boundary door was open for approximately five hours on March 15, 2010 to support a maintenance activity. However, the on-shift fire fighter and Security personnel were aware of the condition. The work that required opening the door was planned to resume on March 16, 2010, and the workers informed the on-shift fire fighter of the need to open the door. On this day, different personnel were on shift, and the on-shift fire fighter recognized that the licensed operators needed to be informed that the door would be open. The operators were informed of the planned work and it was re-scheduled to occur on March 17, 2010. On March 17, the containment enclosure boundary door was propped open at approximately 0843 to support the planned activity and the action of TS 3.6.5.2 was entered for the open door. Also on the morning of March 17, Operations requested Licensing to confirm that TS 3.6.5.2 was the appropriate TS action for this condition. This review concluded that the open door rendered both trains of the CEEACS inoperable and this condition required entry into TS 3.0.3. The enclosure boundary door was then closed and containment enclosure integrity was established at approximately 1254 on March 17, 2010.

On March 15 and 17, 2010, with both trains of CEEACS inoperable for approximately five hours and four hours, respectively, the station was in TS 3.0.3. However, because this condition was not recognized, no actions were initiated within one hour as required by TS 3.0.3 to place the plant in a mode in which the TS does not apply. Consequently, this event resulted in a condition prohibited by the TS and is reportable in accordance with 10 CFR 50.73 (a)(2)(i)(B). In addition, because both trains of CEEACS were incapable of performing their specified function, this event is reportable as a safety system functional failure of the CEEACS in accordance with 10 CFR 50.73 (a)(2)(v)(C). With the exception of the containment enclosure boundary, which was rendered inoperable by an open door, no other structures, systems, or components were inoperable at the start of the event and contributed to this event. No adverse consequences resulted from this condition; therefore, the condition had no adverse impact on the health and safety of the public or the plant and its personnel.

IV. Corrective Action

Upon recognizing that the open containment enclosure boundary door rendered both trains of CEEACS inoperable, the door was immediately closed, Operations issued a standing operating order that placed maintenance activities involving the doors on hold, and site personnel were informed of the restrictions involving the doors.

The planned corrective actions for this event include:

1. The lack of programmatic controls to ensure the control room is notified prior to propping open a containment enclosure boundary door will be addressed by strengthening the existing programs that control maintenance activities on these doors.
2. The failure to consider the impact of the breach in the containment enclosure boundary on operability of the CEEACS due to incorrect historical guidance will be corrected by modifying the TS to adopt TSTF-287-A, Ventilation System Envelope Allowed Outage Time. This change will revise TS 3.6.5.1 to provide a 24-hour completion time for two inoperable CEEACS trains due to an inoperable containment enclosure boundary.

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V. Additional Information

The Energy Industry Identification System (EIS) codes are included in this LER in the following format: [EIS system identifier, EIS component identifier].

VI. Similar Events

LER 2005-004 reported an event in March 2005 that resulted in a condition prohibited by the TS. In this event, the historical implementation of the TS had been incorrect and resulted in noncompliance with the TS regarding off-site power sources. The corrective actions for this event included revising the TS bases to provide guidance on appropriate implementation of the TS.