



GPU Nuclear, Inc.
U.S. Route #9 South
Post Office Box 388
Forked River, NJ 08731-0388
Tel 609-971-4000

August 7, 2000
1940-00-10001

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

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Licensee Event Report 00-005: Failure to Identify that Charcoal Filter Failed Surveillance on Methyl
Iodine Removal Efficiency Due to Personnel Error

Enclosed is Licensee Event Report 00-005. This event did not affect the health and safety of the public or plant personnel.

If any additional information or assistance is required, please contact Mr. Robin Brown of my staff at 609-971-4979.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Sander Levin', written over a horizontal line.

Sander Levin
Acting Site Director

SL/DK

c: Administrator, Region I
NRC Senior Project Manager
Senior Resident Inspector

IE 22

LICENSEE EVENT REPORT (LER)

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If 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.

FACILITY NAME (1)

Oyster Creek Nuclear Generating Station

DOCKET NUMBER (2)

05000

PAGE (3)

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TITLE (4)

Failure to Identify that Charcoal Filter Failed Surveillance on Methyl Iodine Removal Efficiency Due to Personnel Error

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
06	01	2000	2000	05		08	07	2000		05000
									FACILITY NAME	DOCKET NUMBER
										05000
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
			20.2201(b)			20.2203(a)(2)(v)			50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER			20.2203(a)(1)			20.2203(a)(3)(i)			50.73(a)(2)(ii)	50.73(a)(2)(x)
			20.2203(a)(2)(i)			20.2203(a)(3)(ii)			50.73(a)(2)(iii)	73.71
			20.2203(a)(2)(ii)			20.2203(a)(4)			50.73(a)(2)(iv)	X OTHER
			20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

John Yuen

TELEPHONE NUMBER (Include Area Code)

609-971-2306

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

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

SUPPLEMENTAL REPORT EXPECTED (14)

YES

(If yes, complete EXPECTED SUBMISSION DATE).

NO

EXPECTED

MONTH

DAY

YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

In response to Generic Letter (GL) 99-02, GPU Nuclear committed to using ASTM D3803-1989. The review of the GL did not initially recognize that the acceptance criterion for charcoal absorption efficiency would also be affected. The surveillance procedure was modified to reflect use of the new standard and, separately, the acceptance criterion for charcoal absorption was changed. Upon receipt of the test results, the values were entered into a field copy of the procedure, compared to the former criterion and deemed acceptable. In a subsequent review by a system engineer, it was determined that the charcoal in one train had not met the required value. This submittal is a voluntary report.

The Oyster Creek FSAR considers the possible loss of the electric duct heaters used to control the relative humidity and enhance the efficiency of the charcoal. The analysis assumes that the charcoal filters will become saturated with water and the charcoal efficiency is reduced to 78%. The analysis concludes that with charcoal filter efficiency at 78%, the offsite doses remain well within the guideline values of 10CFR100. The efficiency of the deficient charcoal was greater than 93%, therefore, the health and safety of the public was not adversely affected.

The train of SGTS that failed the acceptance criterion was declared inoperable, and the charcoal was replaced.

A review of surveillance procedures will be conducted to determine if any others are susceptible to a similar occurrence.

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				2000	05		

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

DATE OF OCCURRENCE

The condition was discovered on June 1, 2000 but had existed since December 1999.

IDENTIFICATION OF OCCURRENCE

On June 1, 2000 a system engineer reviewing the results of an earlier surveillance test determined the acceptance criteria for charcoal absorption had not been met.

CONDITIONS PRIOR TO DISCOVERY

The plant was operating at 100% power at the time of discovery but had operated at various power levels and in various modes between December 1999 and June 2000.

DESCRIPTION OF OCCURRENCE

On June 3, 1999, Generic Letter (GL) 99-02 was issued. The GL suggested utilities test charcoal used in Engineered Safety Feature ventilation systems in accordance with ASTM D3803-1989 or other acceptable methodology. Oyster Creek had been using the ASTM D3803-1979 standard and, therefore, committed to change to the 1989 methodology. The GL requested that testing performed more than 60 days after the issuance of the GL be performed in accordance with the new standard and agreed to exercise enforcement discretion for plants that did so. The GL also contained a formula for determining the absorption efficiency that incorporated a safety factor of 2. Since the Oyster Creek Technical Specification did not include a safety factor, it was not immediately recognized that the acceptance criteria would be affected. During the review process for the Technical Specification Change Request, it was determined that the acceptance criteria would increase from 90% to 95%.

On December 13, 1999 charcoal samples were taken from Standby Gas Treatment System I (EHS: BH). GPU Nuclear had previously revised its contract with a qualified laboratory to test the sample in accordance with ASTM D3803-1989 and changed the surveillance procedure. When the results were received from the laboratory in February 2000, the charcoal efficiency value was reviewed and compared to the acceptance criterion and deemed acceptable. That criterion had been changed between the drawing of the sample and the receipt of the results of laboratory testing but the field copy of the surveillance procedure had not been updated to reflect the new acceptance criterion. The test results met the former criterion but did not meet the revised value. In a subsequent review of the surveillance results, a system engineer discovered the discrepancy.

APPARENT CAUSE OF OCCURRENCE

Root causes were the failure to recognize that the charcoal efficiency acceptance criterion would increase from 90% to 95% when responding to the GL; and the failure to update an outstanding field copy of the surveillance procedure.

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

ANALYSIS OF OCCURRENCE AND SAFETY ASSESSMENT

The Standby Gas Treatment System (SGTS) is a plant ESF atmosphere cleanup system which functions as a barrier between the radiation source and the environs during an emergency condition. The SGTS consists of two separate filter trains, each having 100% capacity. Either of the two filter trains is considered as an installed spare, with the remaining train capable of performing the safety function. During normal plant operation the reactor building ventilation is in use and the two trains of SGTS are idle. In the event of an accident, normal ventilation is isolated and a pre-selected train of SGTS is automatically initiated.

The revised acceptance criterion for charcoal absorption efficiency is 95%, which is an increase from the prior requirement of 90% efficiency. The efficiency of the charcoal from SGTS 1 was tested to be 93.69%, which did not meet the revised criterion. The efficiency of the charcoal from SGTS 2 was tested to be greater than 95%.

The design of the SGTS includes heating coils to control humidity and enhance the capability of the charcoal. The Oyster Creek FSAR considers the possible loss of the electric duct heaters used to control the relative humidity below 70%. The analysis assumes that the charcoal filters will become saturated with water with 100% relative humidity. As a result of the saturation, the charcoal efficiency is reduced to 78%. The analysis concludes that with charcoal filter efficiency at 78%, the offsite doses remain well within the guideline values of 10CFR100. Therefore, if charcoal efficiency exceeded 93%, the health and safety of the public was not adversely affected.

Corrective Action

The immediate response was to declare SGTS 1 inoperable and replace the charcoal bed.

The oversight concerning the safety factor and its effect on the acceptance criterion was uncovered during the safety review process evaluation and the submittal was revised. No additional corrective action is required.

A review of other surveillance procedures will be conducted to determine if there are additional surveillances with long intervals from the performance of the sampling or testing to the conclusion of the surveillance. If any are discovered, they will be revised to ensure that outdated field copies will not be used.

SIMILAR EVENTS

None