



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

June 17, 2019  
NOC-AE-19003666  
10 CFR 26.719(c)

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

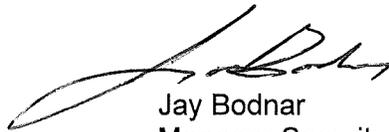
South Texas Project  
Units 1 & 2  
Docket No. STN 50-498, STN 50-499  
Fitness For Duty Random Selection Program Error

In accordance with 10 CFR 26.719 (c)(1), the South Texas Project Nuclear Operating Company (STPNOC) is submitting a report of a matter that could adversely reflect on the integrity of the fitness for duty (FFD) random selection or testing process. The event involves a condition whereby the station's FFD random testing program excluded a population of individuals from being selected. The event was discovered on April 23, 2019. The event has been recorded and is being tracked in the station Corrective Action Program. An investigation of the event was performed to identify causes and corrective actions. The regulation requires submittal of a report within 30 days of investigation completion and the investigation concluded on May 21, 2019.

This report provides a description of the event, the identified root cause, remedial actions taken, and corrective actions planned.

There are no commitments in this letter.

If there are any questions, please contact Tim Hammons at 361-972-7347 or me at 361-972-8031.

 6/17/19  
Jay Bodnar  
Manager Security

tjh

Attachment: Fitness For Duty Random Selection Program Error

STI 34861867

## FITNESS FOR DUTY RANDOM SELECTION PROGRAM ERROR

### EVENT DESCRIPTION

On February 1, 2005, an Oracle Forms software workflow for fitness for duty (FFD) random testing that did not meet all requirements of 10 CFR 26.31, Drug and Alcohol Testing, was placed into production. Specifically, all individuals subject to testing did not have an equal probability of being selected and tested as required by the regulation.

A software coding error in the random number generator function of the Oracle Forms software workflow for FFD random selection and testing prevented selection of individuals for FFD random testing who were assigned an Oracle identification number above 32,767. Unique Oracle identification numbers are used at the station as a means of identification. The technical reasons for the 32,767 restriction were determined to be incidental to the cause of this event.

The software coding error in the random number generator function of the Oracle Forms software workflow for the FFD random selection and testing was not identified and corrected during software acceptance testing under the South Texas Project Nuclear Operating Company (STPNOC) Software Quality Assurance (SQA) Program. The output from the software was not validated in a manner that would ensure the requirements specified in the software requirements document were met. It is evident from the software results that the SQA test plan and test case did not verify that all individuals in the population subject to testing had an equal probability of being selected and tested.

As a result, one of the barriers to ensure an alcohol and drug-free workplace was reduced. When the problem was discovered, approximately 958 individuals (~58.8% of the population subject to testing) could not be selected for FFD random testing.

### ROOT CAUSE

A lack of rigor in the SQA process allowed the FFD random selection function to be implemented with a latent software error. In this case "lack of rigor" was a summation of several aspects regarding the SQA process. It was stated in interviews that the FFD software sponsor (the FFD department) was not informed of the specific software coding changes that were made during the conversion of the FFD software from Microsoft Access 97 to the Oracle platform. The SQA procedure did not drive collaboration between the Information Technology department and the FFD software sponsor. Instead, the SQA procedure placed an unrealistic expectation on the FFD software sponsor to develop or direct the development of the test plan and test case(s) for which the software sponsor may have lacked the necessary technical knowledge and expertise (i.e., knowing how to validate software coding that is used to generate random numbers).

### REMEDIAL ACTIONS

- A. Corrected the random number generator software error.
- B. Performed collections on station FFD personnel and site-wide volunteers that perform FFD functions (such as collections for either urine or breath testing) and have an assigned Oracle identification number greater than 32,767.

- C. Performed collection on the station Medical Review Officer.
- D. Increased random testing for the entire population in the random pool for a specified period of time.

Note: Compliance with 10 CFR 26 was restored upon correction of the random number generator software error.

#### **CORRECTIVE ACTIONS PLANNED**

- A. The Information Technology department will provide the software tools needed to verify that the correct personnel are receiving FFD random tests.
- B. Improve the overall programmatic rigor of the SQA process.