



February 28, 2022

L-2022-016
10 CFR 50.59(d)

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

Re: St. Lucie Unit 2
Docket No. 50-389
Report of 10 CFR 50.59 Plant Changes

Pursuant to 10 CFR 50.59(d)(2), the attached report provides a summary of changes, tests and experiments at St. Lucie Unit 2 that required performance of a 10 CFR 50.59 evaluation and that were implemented during the period of Amendment 27 of the Updated Final Safety Analysis Report (UFSAR) (March 21, 2020 through October 1, 2021) dated March 2022. Amendment 27 of the UFSAR is submitted under a separate cover letter.

Please contact me at 772-467-7435 with any questions regarding this submittal.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wyatt Godes', is positioned above the typed name.

Wyatt Godes
Licensing Manager
St. Lucie Plant

WG/rcs

Attachment: Changes, Tests and Experiments Made as Allowed by 10 CFR 50.59

cc: USNRC Regional Administrator, Region II
USNRC Project Manager, St. Lucie Plant
USNRC Senior Resident Inspector, St. Lucie Plant

CHANGES, TESTS AND EXPERIMENTS
MADE AS ALLOWED BY 10 CFR 50.59

Introduction:

This report is submitted in accordance with 10 CFR 50.59 (d)(2) which requires that:

- i) changes in the facility as described in the UFSAR;
- ii) changes in procedures as described in the UFSAR; and
- iii) tests and experiments not described in the UFSAR

that are conducted without prior Commission approval be reported to the Commission in accordance with 10 CFR 50.90 and 50.4.

This report is divided into two sections:

1. Summaries of changes to the facility as described in the UFSAR performed by a permanent modification are summarized.
2. Summaries of changes to the facility or procedures as described in the UFSAR, and for tests and experiments not described in the UFSAR, which are not performed by a permanent modification.

Sections 1 and 2 summarize specific 10 CFR 50.59 evaluations for the specific changes listed below. These evaluations concluded that the changes did not require a change to the plant technical specifications, and prior NRC approval was not required.

SECTION 1 **PERMANENT MODIFICATIONS**

None

SECTION 2 **10 CFR 50.59 EVALUATIONS**

EC 294586 Fuel Transition Non-LOCA Events (SGTR/SBO) UFSAR Changes

SECTION 1
PERMANENT MODIFICATIONS

None

SECTION 2

50.59 EVALUATIONS

EC 294586 Fuel Transition Non-LOCA Events (SGTR/SBO) UFSAR Changes

Summary:

EC 294586 documents the results of the Framatome transient and Zachry (formerly NAI) radiological dose UFSAR Chapter 15 reanalyses for the steam generator tube rupture (SGTR) and station blackout (SBO) events, which were some of the events not analyzed during the Westinghouse to Framatome fuel transition. This EC revises the affected UFSAR sections to reflect these newly completed analyses.

A 50.59 evaluation addressed the adverse effects and methodology changes for the reanalysis. The adverse effects are due to the changes to the analysis value for reactor coolant system (RCS) flow and steam generator tube plugging, and include:

1. Radiological dose consequences of the reanalyses, including decrease in radiological margin for:
 - a. Exclusive area boundary (EAB) and low population zone (LPZ) radiological doses for SGTR pre-accident iodine spike;
 - b. EAB, LPZ and Control Room (CR) accident doses for SGTR concurrent iodine spike; and
 - c. EAB, LPZ, CR SBO doses.
2. It also includes the loss of margin from the limit of 110% of design RCS pressure for the Framatome SBO transient analysis.

The 10 CFR 50.59 evaluation determined that the proposed activity does not result in more than a minimal increase in the frequency or consequences related to an accident or malfunction.

The 50.59 evaluation also addresses the change in analysis methodology used by Framatome for the SGTR and SBO reanalyses. The Zachry methodology used for the radiological consequences reanalysis of these events remains unchanged. The new Framatome methodology used in the safety analyses has been approved by the USNRC for St. Lucie Unit 2 application as part of the Westinghouse to Framatome fuel transition License Amendment. Therefore, the proposed activity does not result in a departure from a method of evaluation described in the UFSAR used in establishing the design bases or in the safety analyses.

No Technical Specification changes are required.

Because the proposed change does not require a change to the Technical Specifications and does not meet any of the criteria in 10 CFR 50.59(c)(2), the change can be made without obtaining a license amendment pursuant to 10 CFR 50.90.