Southern Nuclear

SNC Vogtle 1&2 Pre-Submittal Meeting
Technical Specification Revision to Modify Acceptance Criteria for Charcoal Filter Testing, TS 5.5.11.c

November 30, 2022

Meeting Purpose and Agenda

- The purpose for this meeting is to discuss proposed amendment request to revise the charcoal adsorber penetration acceptance criteria for the Control Room Emergency Filtration System (CREFS) for Vogtle Technical Specification (TS) 5.5.11.c

- This meeting will cover the following topics:
  - Background
  - Proposed License Amendment Request
  - Evaluation
  - Precedent
  - Schedule

Background

Background

- TS 5.5.11, Ventilation Filter Testing Program (VFTP), item c. identifies the test method and acceptance criteria for the laboratory test of the charcoal adsorber for the CREFS and Piping Penetration Area Filtration and Exhaust (PPAFES) systems

- The proposed change would revise the TS 5.5.11.c CREFS filter penetration criteria to improve the ability to monitor the performance of the charcoal. This would improve:
  - margin for trending of results for better prediction of charcoal filter service life, and
  - proactive planning for filter replacement

- Regulatory basis for our requested change based on GL 99-02, Laboratory Testing Of Nuclear- Grade Activated Charcoal

Proposed License Amendment Request

Technical Specification 5.5.11

5.5.11 Ventilation Filter Testing Program (VFTP)

A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in accordance with Regulatory Guide 1.52, Revision 2, and ASME N510-1980:

Proposed revision to TS 5.5.11.c

c. Demonstrate for each of the ESF systems that a laboratory test of a sample of the charcoal adsorber, when obtained as described in Regulatory Guide 1.52, Revision 2, shows the methyl iodide penetration less than or equal to the value specified below when tested in accordance with ASTM D3803-1989 at a temperature of 30°C and greater than or equal to the relative humidity specified below.

ESF Ventilation System	Penetration	RH
CREFS	.5 → ~~.2~~%	70%
PPAFES	10%	95%

Evaluation

Evaluations Performed

- The revision to the acceptance criteria does not change the test methodology

- GL 99-02, Laboratory Testing Of Nuclear- Grade Activated Charcoal, allows the use of a safety factor of 2, which maintains the credited carbon efficiency of 99% in the dose calculations.

- The proposed change to revise CREFS charcoal adsorber methyl iodide penetration acceptance criteria in TS 5.5.11.c from 0.2% to 0.5% is consistent with GL 99-02.

Precedent

Precedent

- Entergy submittal on June 12, 2003 (ML031670927) for Indian Point 3, which was NRC approved on October 30, 2003 (ML033070330)
  - Revised the Control Room Ventilation System (CRVS) charcoal adsorber testing protocol and acceptance criteria to be consistent with GL 99-02.

- Florida Power & Light submittal on November 17, 1999 (ML993270236) for Saint Lucie, which was NRC approved on December 7, 2000 (ML003776207).

Schedule

Schedule

- Submit LAR – 1st Quarter 2023
- Request approval – 1 year from acceptance

Questions?