Cooper Nuclear Station Engineer's Certificate for Dry Fuel Storage Canisters

NPPD Board of Directors Meeting
Nuclear Committee
January 12, 2023

Khalil Dia
Site Vice President

Background

- Refueling outages occur every 24 months and result in the removal of spent fuel bundles into the spent fuel pool, commonly called wet storage (~184 bundles every outage). The spent fuel pool can hold up to 2,637 fuel bundles.
- CNS is required to maintain full-core offload capability (548 fuel bundles) into the spent fuel pool with the original intent of shipping spent fuel to a Department of Energy (DOE) location when necessary.
- Due to the DOE not providing a location, spent fuel must be stored on site and due to the size limitation of the spent fuel pool, a dry fuel storage location was constructed at CNS.

Background

- Construction of the dry fuel storage pad was completed in 2010 to hold spent fuel originally planned to be taken by the DOE.

- The DOE has agreed to reimburse the expenses related to storing spent fuel incurred by the District. This settlement agreement is revisited and extended on a three-year basis. The latest proposed agreement through 2025 has been issued by the DOE and is in the approval process.

Background

- Dry Fuel Storage Pad is sized to contain 52 Horizontal Storage Modules (HSM)

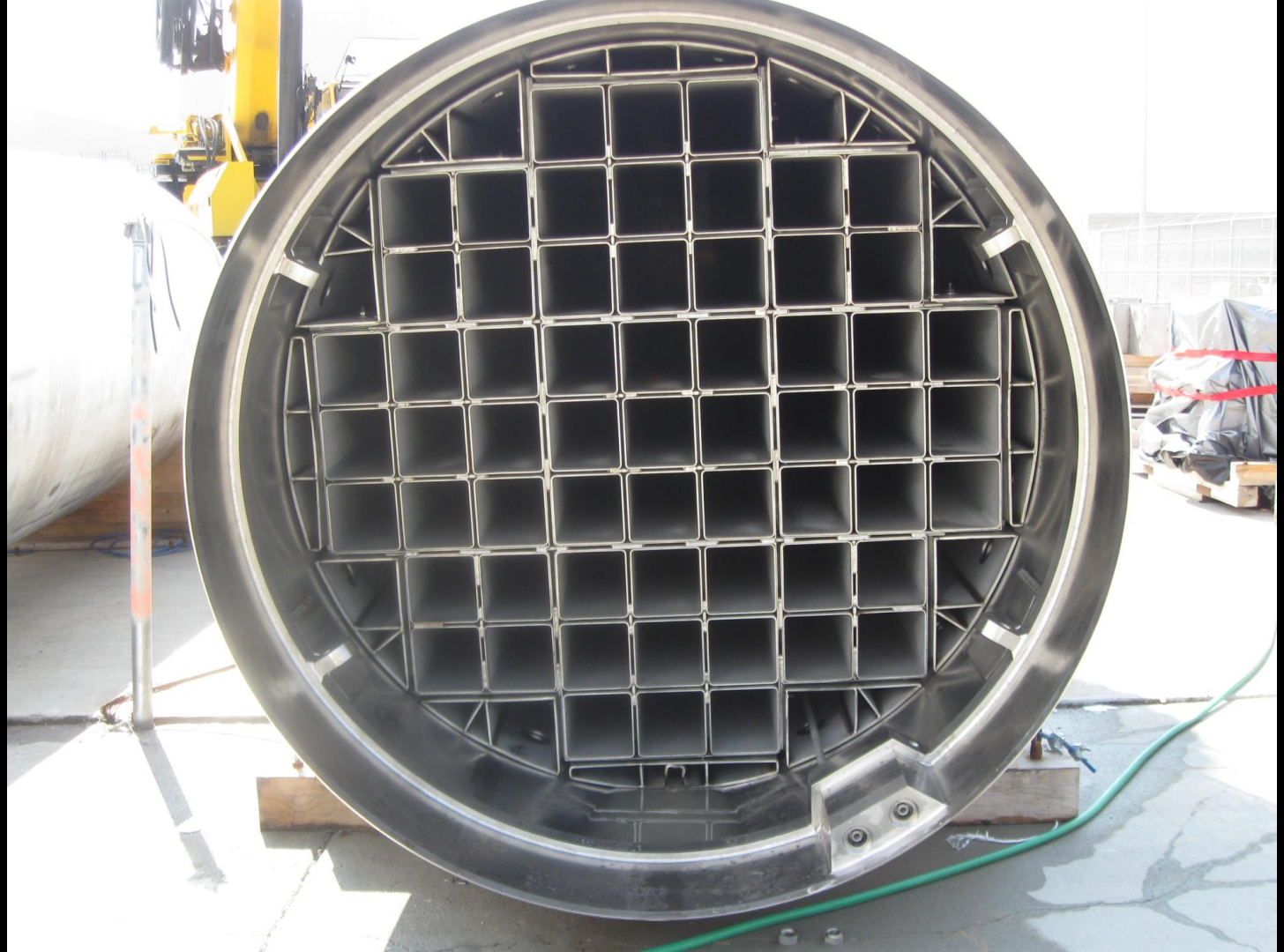
- 3 Spent Fuel Campaigns have been completed to date
  - Campaign #1 – January 2011 8 canisters
  - Campaign #2 – June 2014 10 canisters
  - Campaign #3 – November 2017 12 canisters

Horizontal Storage Modules

Moving Used Fuel to Dry Storage Facility

Moving first canister from spent fuel pool

Loading canister into Dry fuel storage facility

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Scope

- Fabrication and delivery of 8 canisters (holds 61 fuel bundles each) to be used in Spent Fuel Campaign #4 (which will be completed in 2025)
- 24-month lead time is required for the scope of work
- Canisters will be fabricated in the United States and delivered to CNS

Basis for Engineer's Certificate

The process specifications, drawings, designs, and technical specifications regarding the dimensional tolerances and materials used to manufacture and assemble the dry storage canisters are proprietary to Orano - TN Americas, LLC, the original manufacturer of the District's Dry Fuel Storage System.

Recommendation

Recommend Board approval of an Engineer's Certificate with Orano – TN Americas, LLC for eight dry storage canisters in an estimated amount of $9,600,000.

Questions?

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