



# Pre-Submittal Meeting: Diesel Generator Fuel Oil Storage Tank Cleaning/Inspection

June 1, 2023

# Agenda

- Introductions
- Maintenance Requirements
- Technical Specification (TS) Requirements
- System Design
- System Drawing
- Purpose of Request
- Conduct of Maintenance
- Permanent Equipment Lineup
- Use of Temporary Equipment
- Considerations
- TS Revision to Limiting Condition of Operation (LCO) 3.8.3
- Precedents
- Submittal Timeline

# Maintenance Requirements

- CNS License Renewal Buried Pipe and Tanks Inspection Program (NLS2010050-04, ADAMS Accession Number ML101310605) and Diesel Fuel Monitoring Program (NLS2008071-06, ADAMS Accession Number ML083030225) require periodic emptying, cleaning and examination of the buried Diesel Fuel Oil Storage Tanks
- CNS Engineering Evaluation (EE) 11-037 established a 20-year re-inspection interval recommended by vendor tank thickness and corrosion rate evaluations in 2004.
- Maintenance Plan 800000008796 implements the 20-year inspection frequency
- Inspection was last completed in 2004

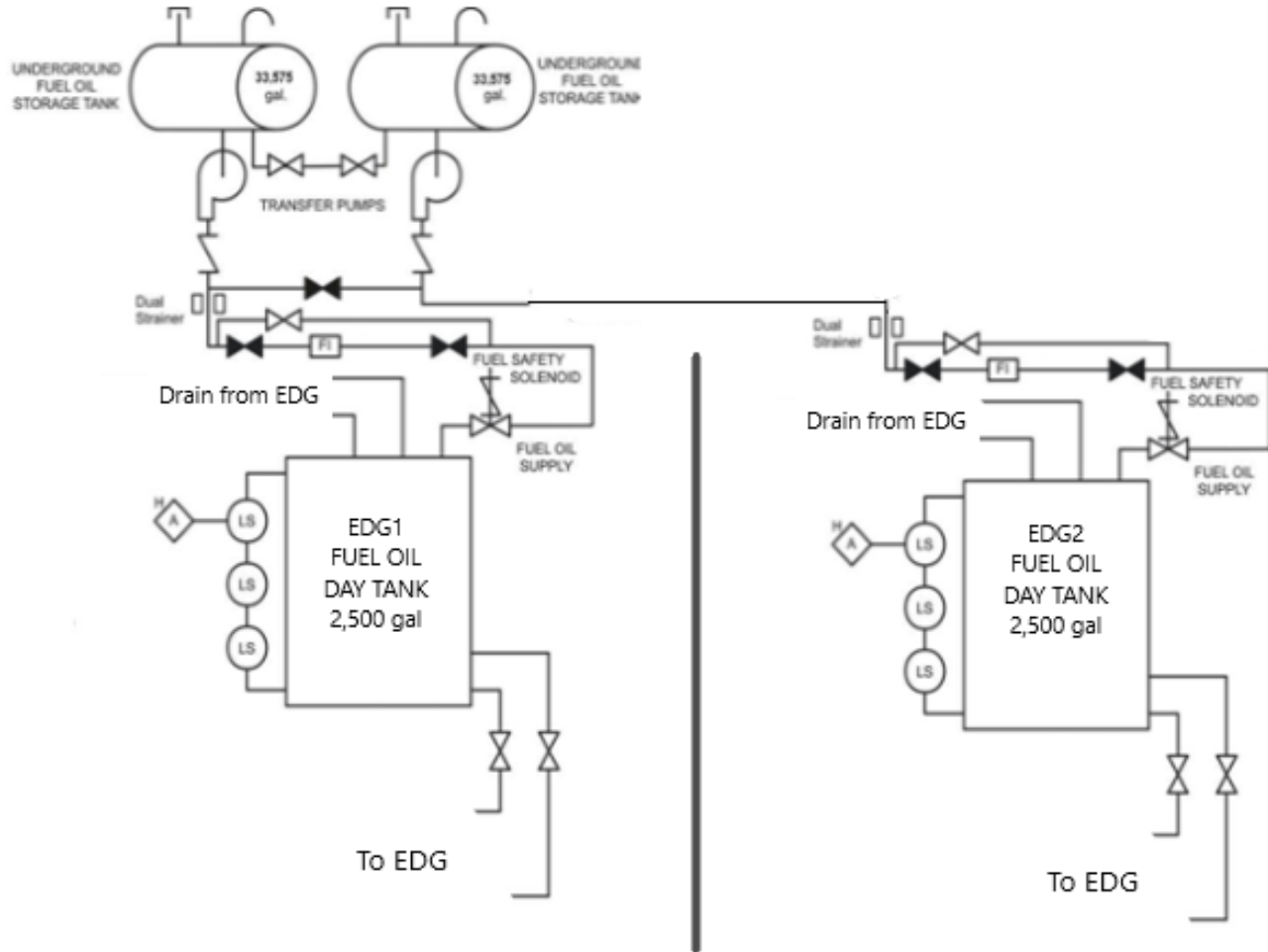
# Technical Specification Requirements

- This request will be performed during Refuel Outage 33 (October 2024) while in Modes 4 or 5
- One Diesel Generator required to be Operable in Modes 4 and 5 (per TS LCO 3.8.2)
- 7 day supply of fuel oil required for Operability (per TS LCO 3.8.3)

# System Design

- Two Diesel Generators (DG)
- Two Diesel Generator Fuel Oil (DGFO) Storage Tanks
- Two DGFO Transfer Pumps; One located in each tank
- DGs and Transfer Pumps are divisional
- Both DGFO Storage Tanks required to meet 7 day supply of fuel oil for one DG.
- DGFO fuel supply system is cross connected so that total capacity of both tanks can be directed to either DG

# System Drawing



# Purpose of Request

- Purpose of license amendment request is to take credit for the fuel oil volume stored in temporary tank(s) in meeting the Technical Specifications requirement of a 7 day supply of fuel oil.

# Conduct of Maintenance

- Storage tank to be cleaned and inspected will be isolated from Diesel Generator being left in service
- Transfer pump for tank being cleaned will be deenergized and isolated from system
- DG associated with tank under maintenance will be danger tagged off and out-of-service for other planned engine preventive and corrective maintenance



# Permanent Equipment Lineup

- In-service Storage Tank will be maintained with at least 4 day supply of fuel oil
- Associated DG will be maintained Operable
- Associated Transfer Pump will be maintained in automatic

# Use of Temporary Equipment

- Minimum 49,500 gallons (7 day supply) of diesel fuel will be available between one in-service permanent storage tank and above ground temporary storage tank(s)
- Contents of tank under maintenance will be off-loaded using filtration equipment to temporary storage tank(s)
- Temporary pump/filter equipment, independent of electrical power sources, will be pre-staged to transfer off-loaded fuel to the in-service permanent storage tank
- Special Procedures will be approved with instructions to restore off-loaded fuel to the in-service permanent storage tank

# Considerations

- **Seismic**
  - Temporary equipment will be at site grade level (elevation 903 ft Mean Sea Level)
  - Location is Type I Fill, or Structural Fill, consisting of highly compacted backfill down to site bedrock
- **Security**
  - Temporary equipment will be located inside CNS Protected Area
  - Security impacts will be evaluated using CNS Procedure 0-SEC-INTERFACE
- **FLEX**
  - Temporary equipment impacts on FLEX travel paths and staging areas has been evaluated with no impacts noted.

# Technical Specification Revision to LCO 3.8.3 (Sample)

## TEMPORARY NOTE

Fuel oil in temporary storage tanks may be utilized to support OPERABILITY of a DG during tank cleaning and inspection maintenance activities. Equipment (temporary transfer pump, hoses, and appropriate fittings) capable of supplying the fuel oil in the temporary tanks to the DG must be available. The fuel oil in the temporary tanks, in conjunction with the fuel oil in the permanent tank, must be within the limits of Condition A and Condition C. This temporary note is applicable only to the DG aligned to the full permanent tank. This temporary note is applicable only during Refuel Outage 33 while in MODES 4 or 5. This allowance is contingent upon meeting the compensatory measures contained in Nebraska Public Power District letter NLS2023029.

# Precedents

- Monticello Nuclear Generating Plant, Revise Technical Specifications to Support a Ten-Year Inspection of the Diesel Generator Fuel Oil Storage Tank, Amendment 209 Safety Evaluation dated December 27, 2022 (ADAMS Accession Number ML22318A215)
- Cooper Nuclear Station, One-Time Extension of Diesel Generator Allowed Outage Time from 7 Days to 14 Days, Amendment 207, Safety Evaluation dated October 15, 2004 (ADAMS Accession Numbers ML042920532 and ML042930375)

# Submittal Timeline

- Submit to NRC July 2023
- Estimated 1-yr NRC review time
- Implement within 60 days of NRC approval



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# Questions

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