



Ice Condenser





Ice Condenser

- **Purpose**
- **Ice Condenser Overview**
- **TS Surveillances – Proposed Change**
- **History – Basis for Change**
- **Questions**

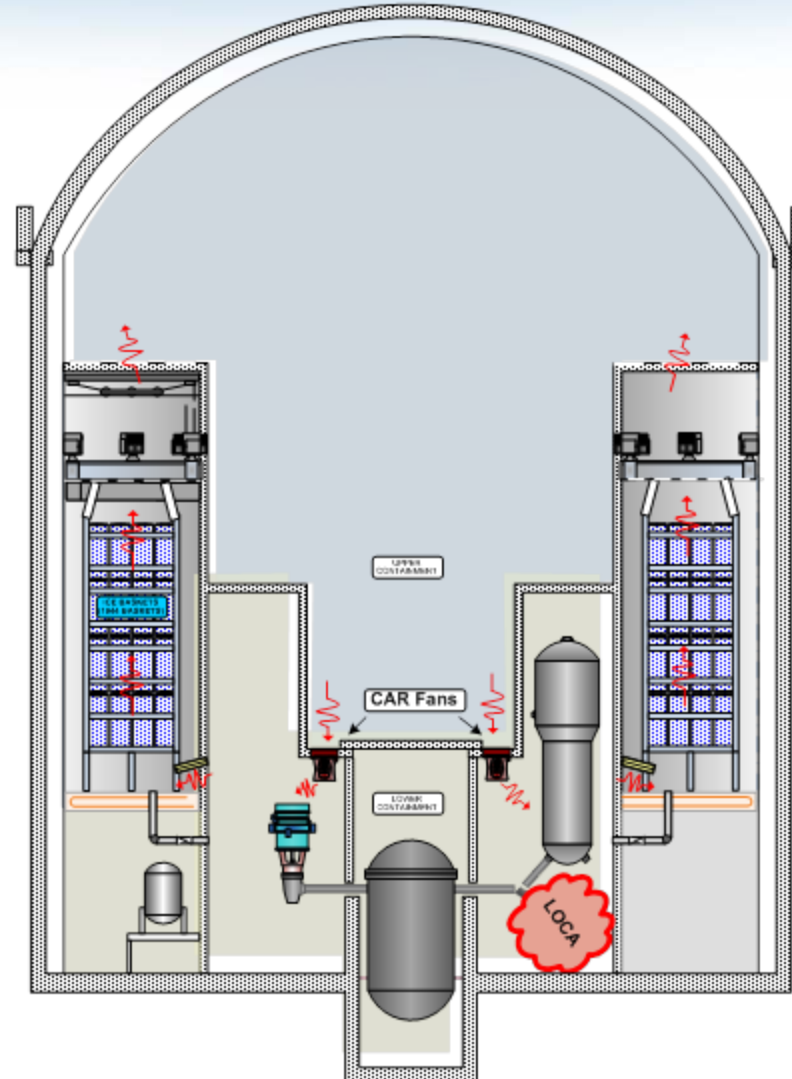


Ice Condenser Overview

- **Passive Heat Removal System**
 - **Contains at least 2,750,700 lbs of ice**
- **Two main regions**
 - **Ice Bed and Upper Plenum**
 - **Ice bed separated from containment by lower inlet doors**
 - **Ice bed separated from upper plenum by intermediate deck doors**
 - **Upper plenum separated from containment by top deck doors**

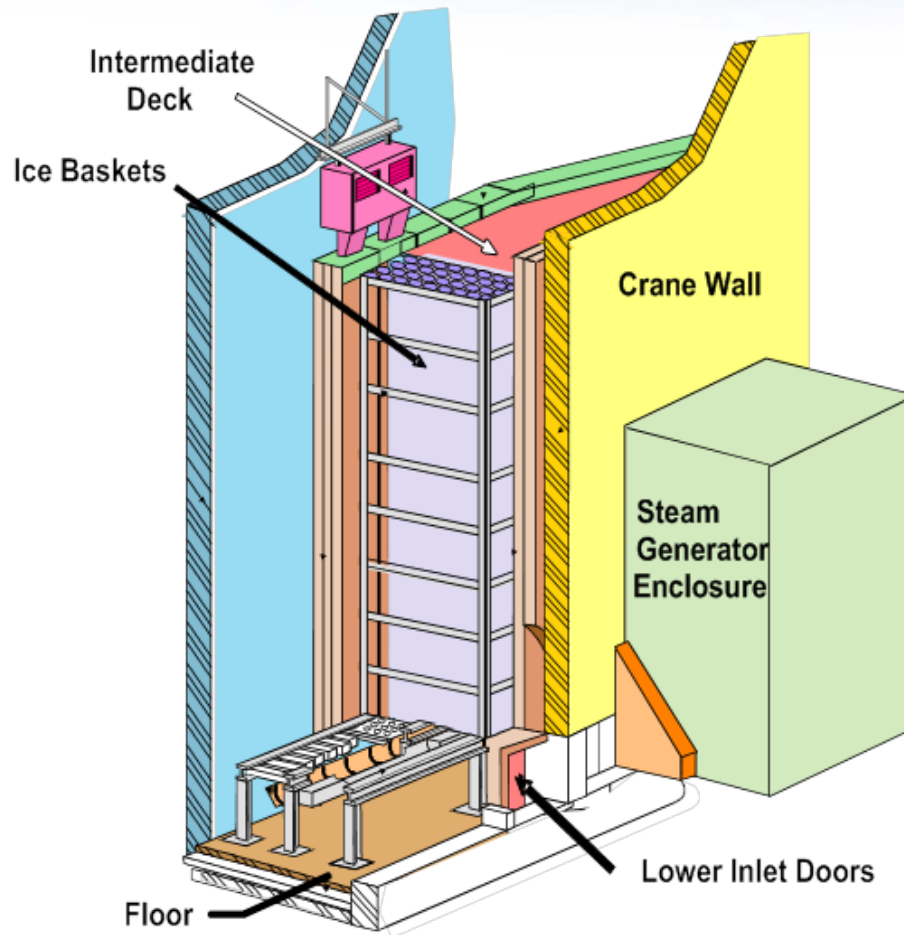


Ice Condenser Overview (Cont.)



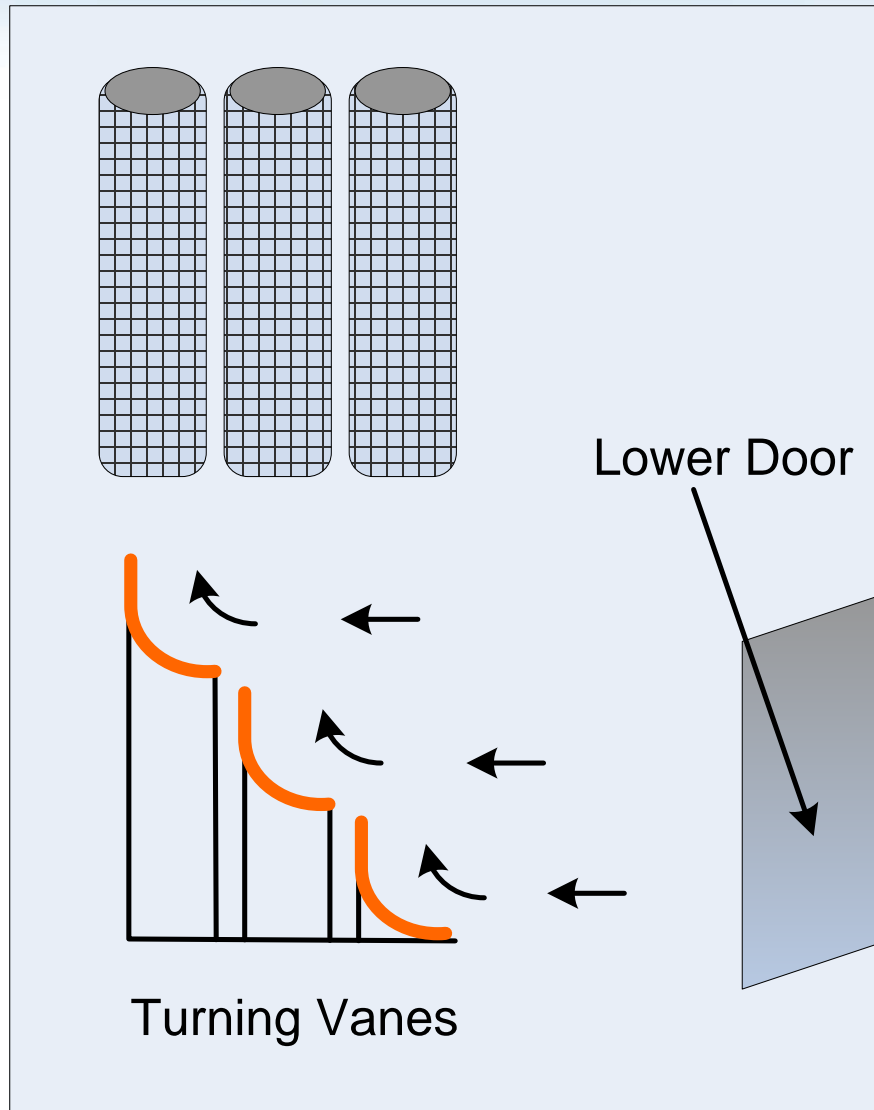


Ice Condenser Overview (Cont.)





Ice Condenser Overview (Cont.)





Ice Condenser TS Surveillances

- **Three Lower Inlet Door Surveillances (3.6.12.3, 4, & 5)**
 - **3.6.12.3 – Visually inspect each door**
 - **3.6.12.4 – Torque to begin to open door**
 - **3.6.12.5 – Torque to open & close door**
- **Frequency**
 - **Once per 3 months in first year**
 - **Once per 18 months**





Ice Condenser TS Surveillances (Cont.)

- Proposed change allows first cycle operation until the end of the cycle aligned with the power ascension program
- Approximately 10 month long cycle
- Surveillance changes

SR 3.6.12.3	Verify, by visual inspection, each inlet door is not impaired by ice, frost, or debris.	Twice during the first cycle after receipt of the license <u>AND</u> 18 months
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Ice Condenser TS Surveillances (Cont.)

▪ Surveillance changes (cont.)

SR 3.6.12.4	Verify torque required to cause each inlet door to begin to open is ≤ 675 in-lb.	Twice during the first cycle after receipt of the license <u>AND</u> 18 months
SR 3.6.12.5	Perform a torque test on a sampling of $\geq 50\%$ of the inlet doors.	Twice during the first cycle after receipt of the license <u>AND</u> 18 months



Ice Condenser Basis For Change

- **Basis for Change**
 - **Doors simple & highly reliable**
 - **Nine Ice Condenser Units with 20 to +30 years of operation**
 - **Operating experience shows very few failures**
 - **First cycle failures**
 - **SR 3.6.12.3 – None**
 - **SR 3.6.12.4 – 2 (1975 & 1978)**
 - **SR 3.6.12.5 – 1 (1996)**
 - **Prevents an otherwise unnecessary plant shutdown**
- **Three month Specification frequency was used to establish an operating history for new plant type design**



Summary



- **Revise Frequency for Surveillances 3.6.12.3, 4, & 5**
- **Doors simple and highly reliable**
- **Supported by many years of operating experience**
- **Prevents an unnecessary plant shutdown**



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- Questions

