

# Description of JCO Criticality Accident

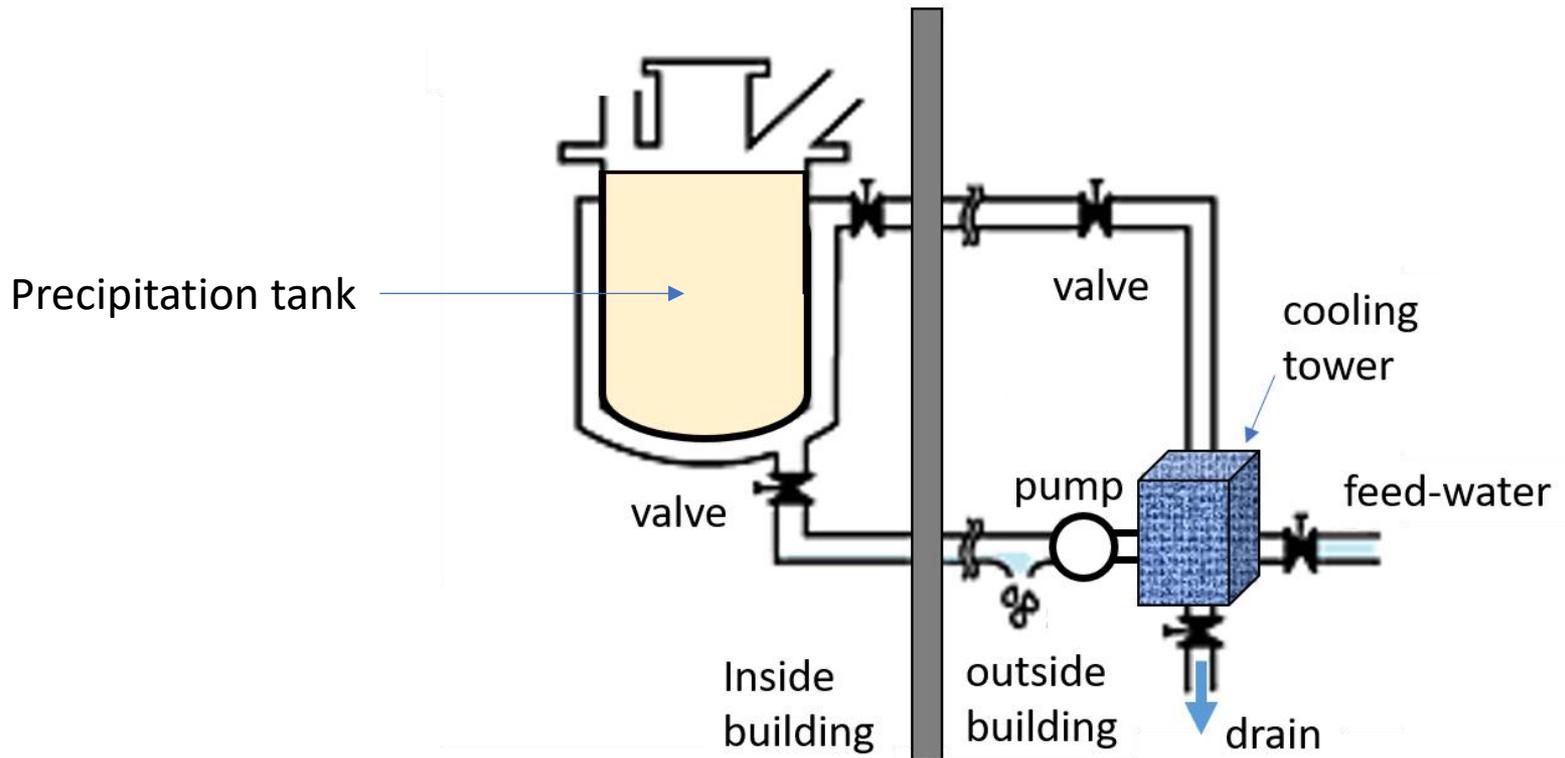
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# Brief description of JCO criticality accident

- Material composition
  - Fuel: 16.8kgU of 18.8% enriched U as 370g/L uranyl nitrate solution
  - Moderator: water
  - Tank: SUS304
- Geometry
  - cylinder
- Initiating event
  - Pouring fuel solution into the tank
- Cooling system: water circulation ( flow rate: unknown )

# Geometry



# References

- TP. McLaughlin et al., A Review of Criticality Accidents 2000 Revision, LA-13638, p.53, 2000.
- K. Tonoike et al., "Power profile evaluation of the JCO precipitation vessel based on the record of the gamma-ray monitor," Nucl. Technol. 143, p.364, 2003.
- T. Yamamoto et al., Evaluation of Biases for Inserted Reactivity Estimation of JCO Criticality Accident," JAERI-Data/Code 2001-001, 2001[in Japanese].
- S. Watanabe et al., Simulation Tests for Thermal Characteristics of JCO precipitation Vessel Using a Mock-up Device, JAERI-Tech 2002-043, 2002[in Japanese].