



NEXT

Nuclear Security and Safeguards

NRC Project Number 99902088 supporting pre-application licensing activities

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Topics

- ACU Police Department & campus security infrastructure
- Potential Special Nuclear Material (SNM) Inventory
- MSRR reactor design features potentially related to security

Facility to be Licensed as a Research Reactor

- Non-Power Utilization Facility
- Molten Salt Research Reactor (MSRR)
 - Licensed under AEA Section 104c pursuant to 10 CFR 50.21(c)
 - Activities Under the 10 CFR Part 50 Facility License
 - 10 CFR Part 70, license to receive, possess, and use SNM
 - 10 CFR Part 30, license to receive, possess and use byproduct material

Full-service law enforcement agency

- 24/7/365 operations
- 14 Full-time Police Officers/6 Civilian Staff
- All ACUPD officers are fully certified/armed Texas police officers
- Formal Working Agreement w/ Abilene Police Dept.
 - Joint 800 MHz radios system/dispatch
 - Full jurisdiction on/off-campus
- Primary Response 24/7 to area Alarms
- Close working relationship with local, State DPS, FBI

ACU Police Department



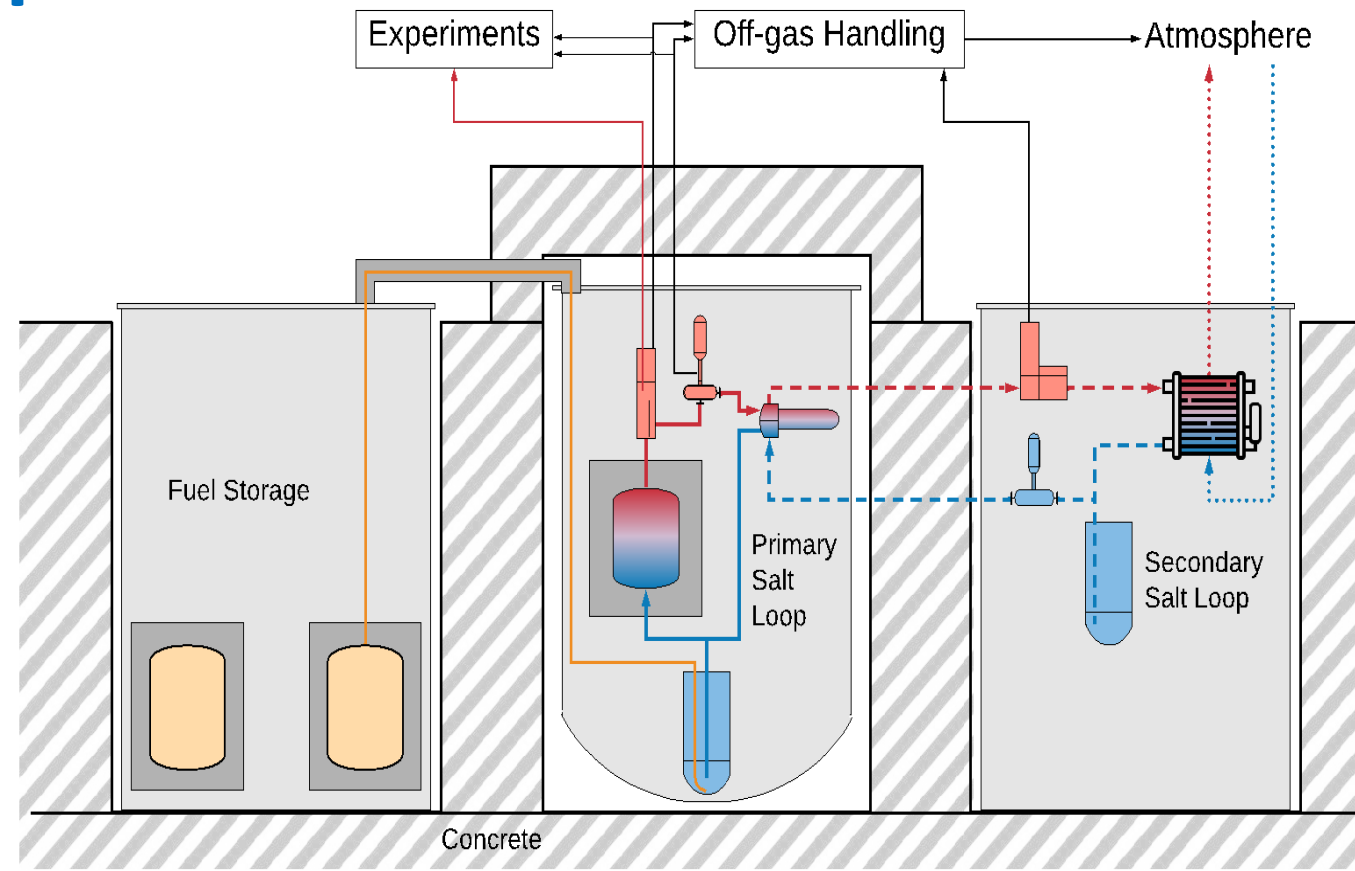
City of Abilene Police Department



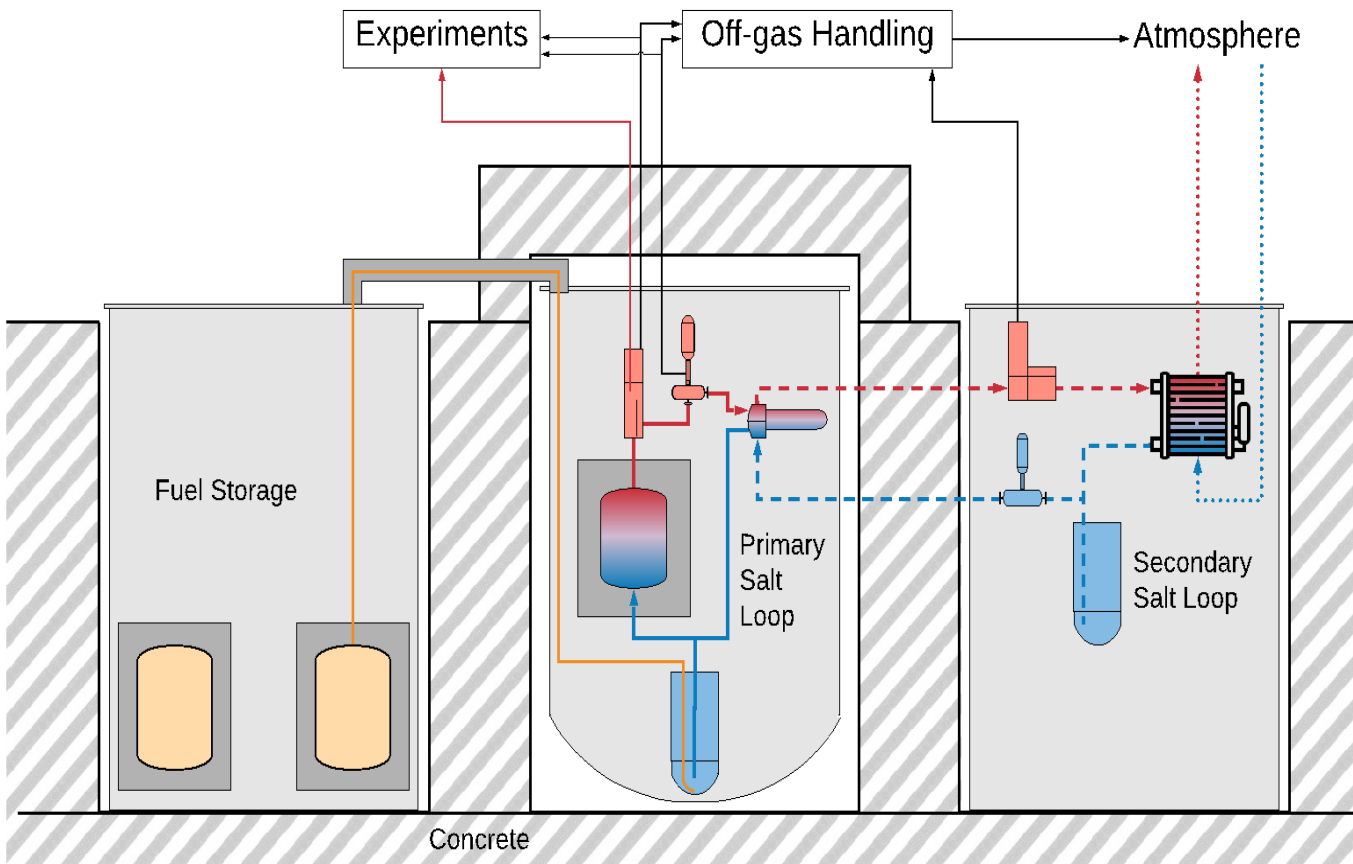
- 287 Combined (Sworn & Civilian)
- Recognized Agency- Texas Police Chiefs Association
- Event Response:
 - Co-Jurisdiction with ACUPD
 - Backup for Alarm Response Procedure
- Formal Joint-operations Agreement w/ ACUPD
- Close relationship/Info Sharing with all local, State, and federal agencies

MSRR Design Features: Fuel

- Special Nuclear Material (SNM)
 - Anticipated SNM license inventory:
 - 500 kg U
 - HALUE (enrichment less than 20%)
 - Cat II
 - Unirradiated SNM inventory after initial startup:
 - <5kg SNM, Cat III
 - Physical Form of SNM
 - Self-protection of SNM



MSRR Design Features: Facility



- Facility security
 - Barriers to access:
 - Access control
 - Intrusion detectors
 - Alarmed response
 - Containment of SNM/fission products:
 - Multiple barriers
 - Reactor vessel
 - Containment vessel
 - Massive shielding
 - Off Gas System
- Physical protection of shipments of SNM
- Information Technology Security (Cybersecurity)