

Decommissioning Power Reactors: Zion Decommissioning Project



CRCPD – May 18, 2016

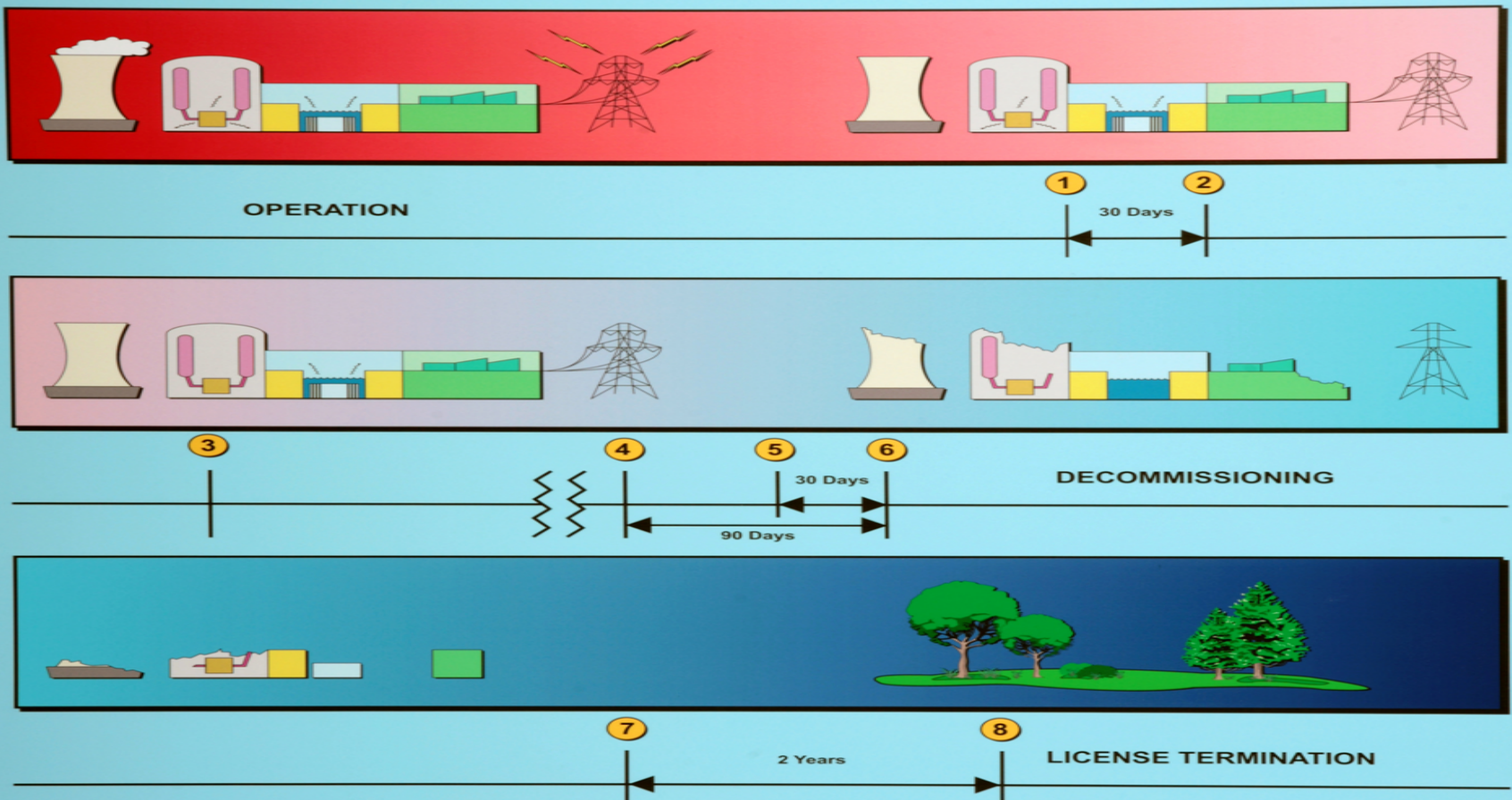
Decommissioning Definition

10 CFR 20.1003

Safely remove a facility from service and reduce residual radioactivity to a level that permits:

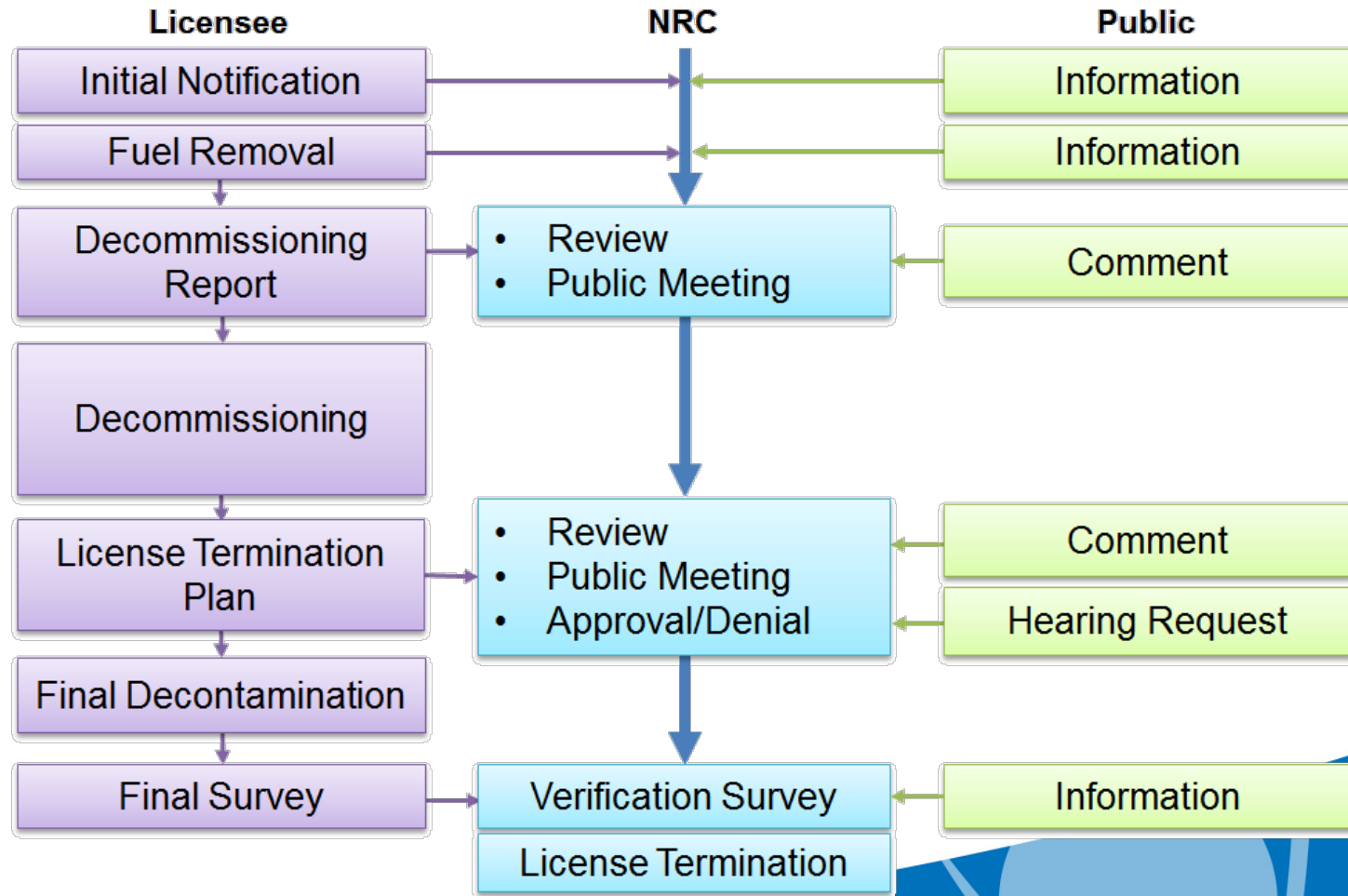
- (a) release of the property for unrestricted use, and terminate the license; or
- (b) release of the property under restricted conditions, and terminate the license

Decommissioning of Nuclear Power Reactors

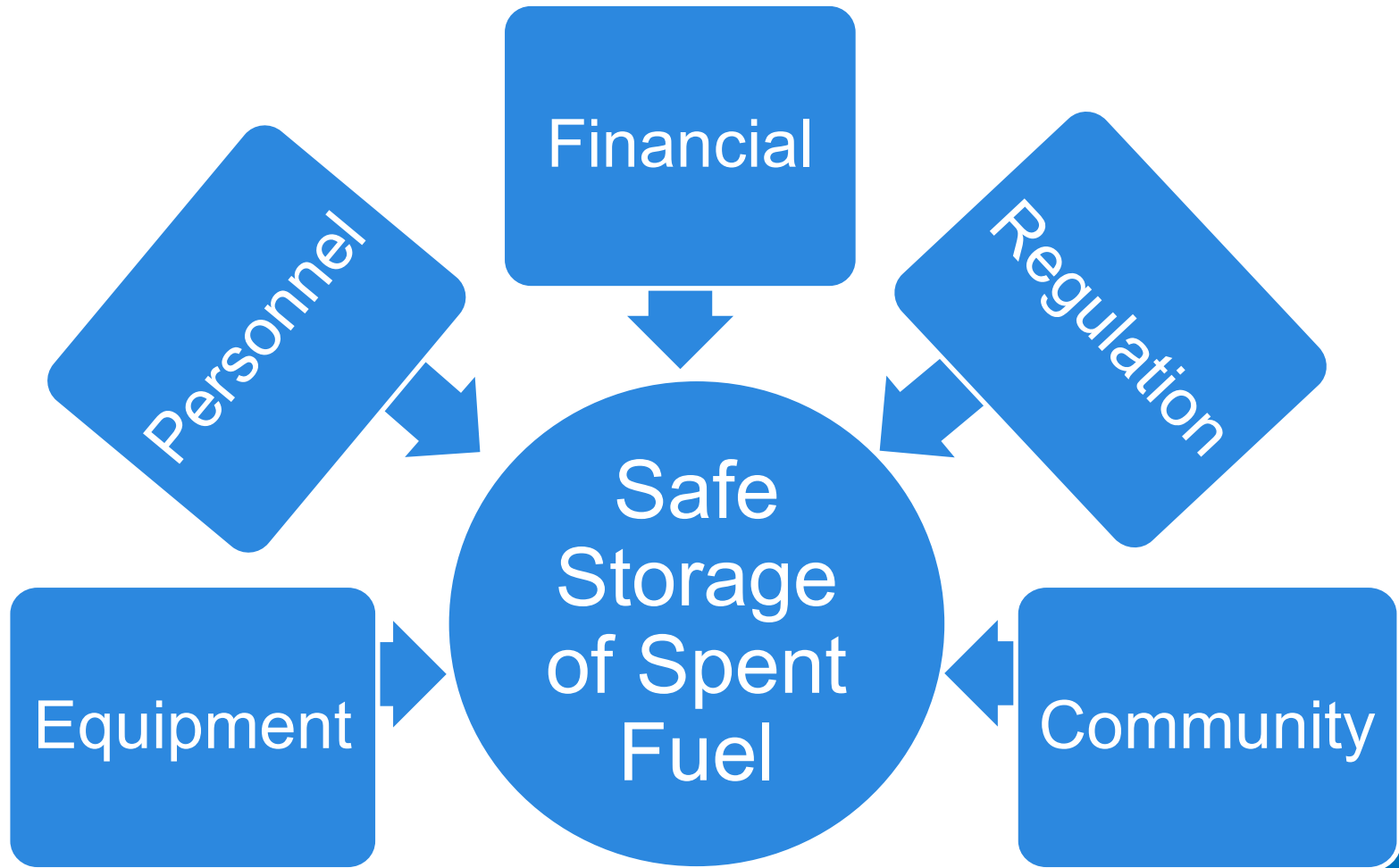


- ① Permanent Cessation of Operations
- ② Certification of Permanent Cessation of Operation
- ③ Certification of Permanent Fuel Removal (Variable)
- ④ Post Shutdown Decommissioning Activity Report (PSDAR) Submittal
- ⑤ Public Meeting 30 Days
- ⑥ Major Decommissioning Activities/Preparation for Storage or Dismantlement
- ⑦ License Termination Plan Submitted
- ⑧ License Termination

Reactor Decommissioning Process



SITE CHALLENGES



SITE FOCUS



Safe Storage
of Spent Fuel

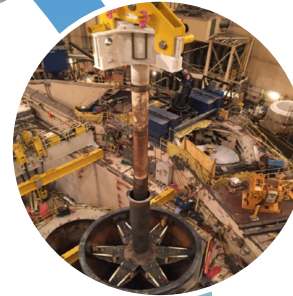


SITE FOCUS

Safe Storage of Spent Fuel



Personnel
Safety



Radiological
Decommissioning



Environment

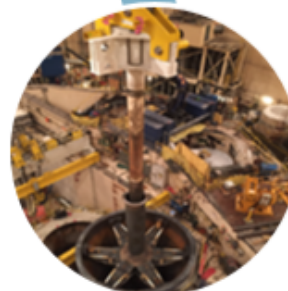


Site
Restoration

Safe Storage of Spent Fuel



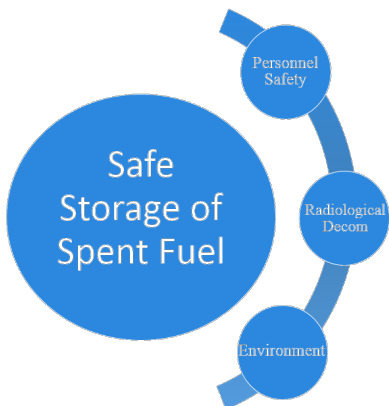
Personnel
Safety



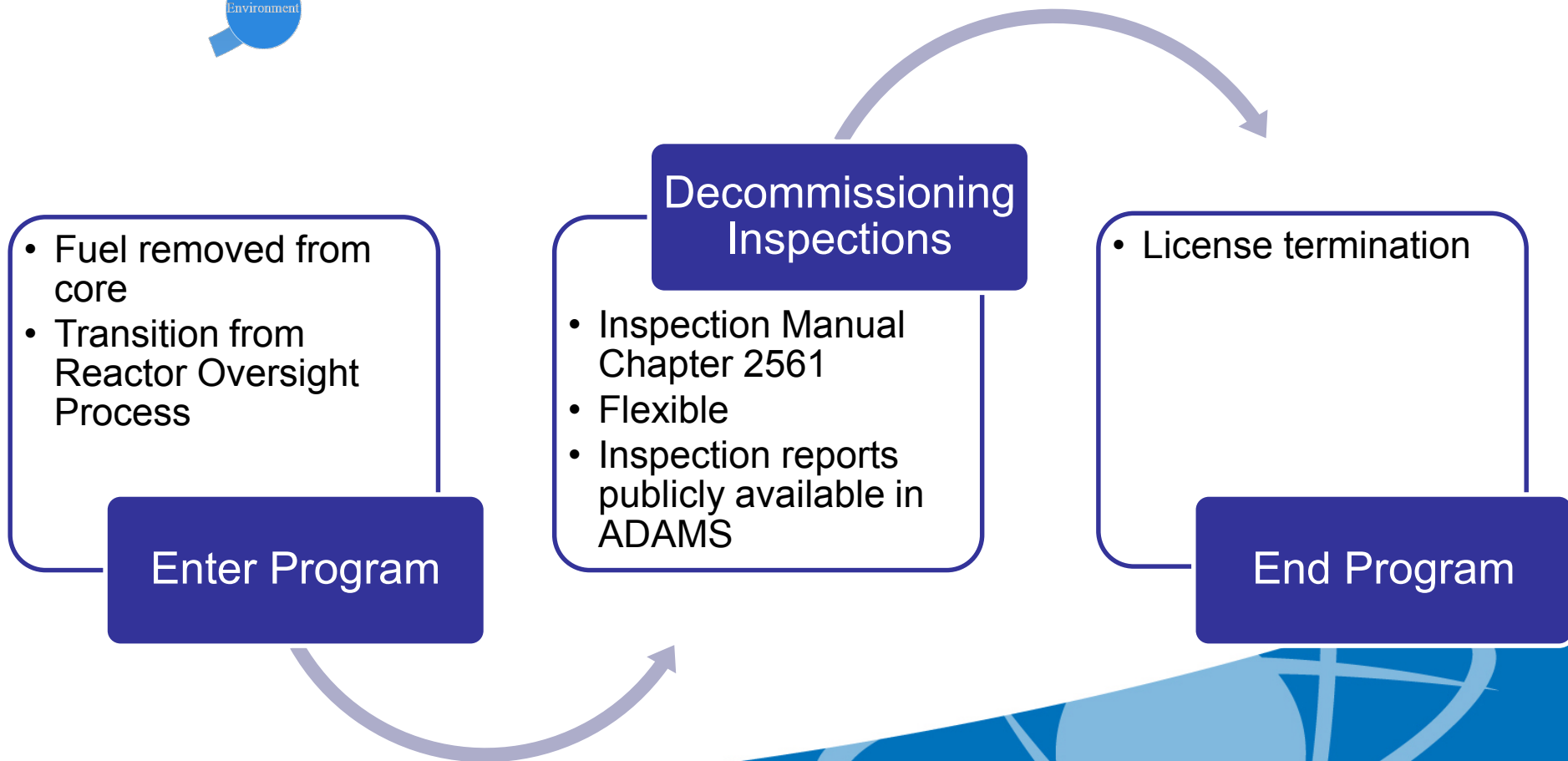
Radiological
Decommissioning

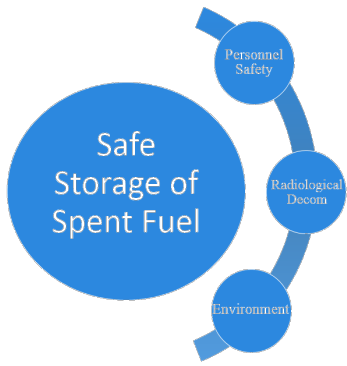


Environment



NRC OVERSIGHT

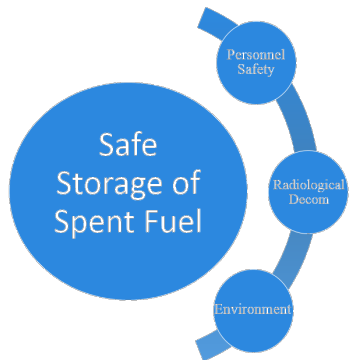




Zion Nuclear Power Station

- Two unit Westinghouse Pressurized Water Reactor
- ~40 miles North of Chicago in Zion, IL
- Permanently Shutdown February 13, 1998
- License transfer to ZionSolutions on September 1, 2010

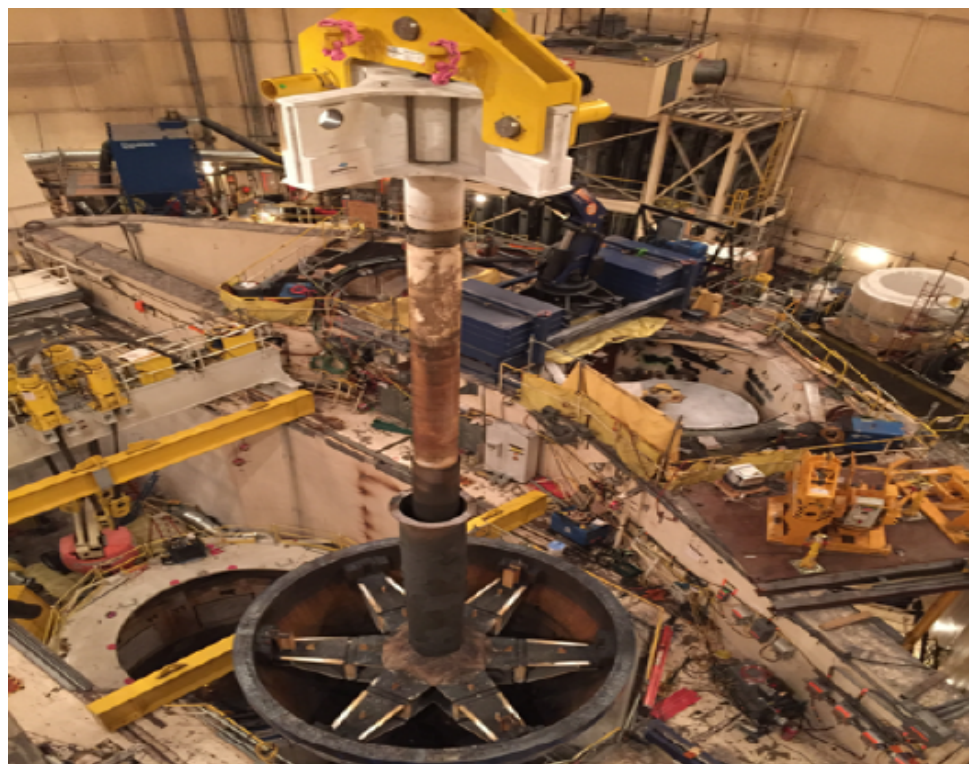




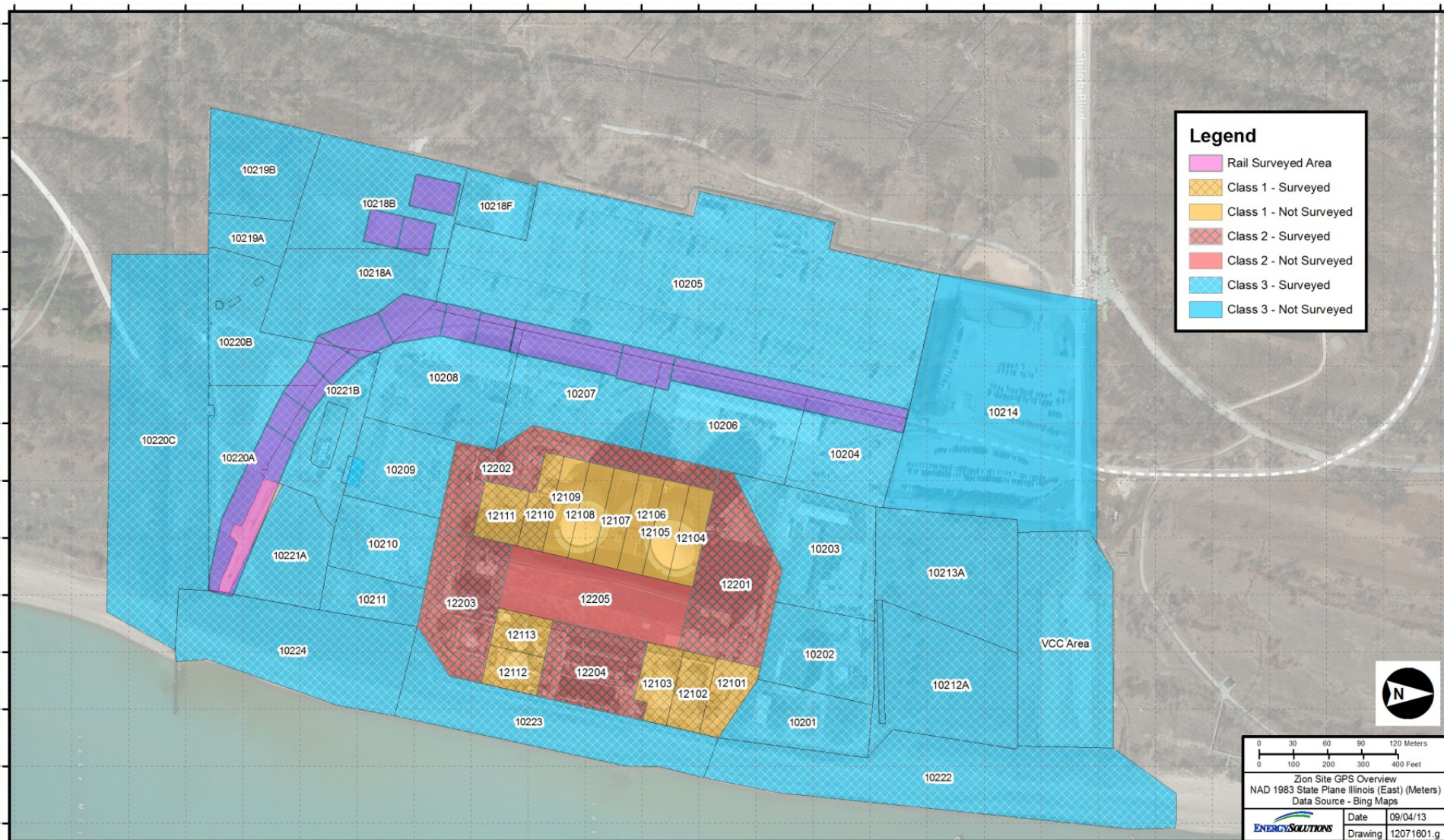
Zion Radiological Decommissioning Status

Completed:

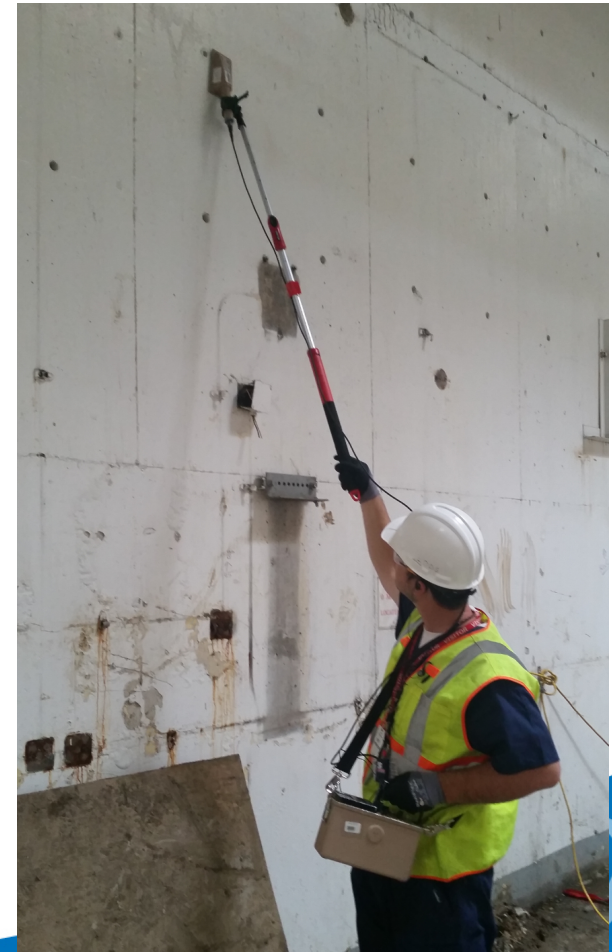
- Spent fuel transfer to Independent Spent Fuel Storage Installation
- Greater Than Class C (GTCC) waste removed
- Class B and C waste removed
- Demolition of Crib house and South Guardhouse



Zion Survey Units



- Final Status Surveys (FSS):
 - Performed by licensee
 - Demonstrate compliance with the release criteria
 - Communication between regulator, licensee, and state
- Inspections during FSS:
 - Evaluate compliance with License Termination Plan
 - Independent confirmatory surveys
 - NRC contract with Oak Ridge Associated Universities
- What happens after License Termination?



Zion Planned Site Restoration



Big Rock Point



Safe Storage of Spent Fuel

Questions?

