Former Reactor Facilities Surveillance and Maintenance and Groundwater Cleanup Updates

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Agenda

- What is Surveillance and Maintenance?
- Surveillance and Maintenance Background
- Inspections
- Building Condition Observations
- Building Maintenance
- Groundwater Cleanup Update

Former Reactor Facilities Surveillance and Maintenance: What is it?

Conducting routine and non-routine inspections to monitor the integrity of the facilities, identify issues, and perform maintenance as necessary until decommissioning and dismantlement (D&D) is complete.

Former Reactor Facilities Surveillance and Maintenance Background

HFBR:

- Building Cold and Dark (2010)
- Majority of remaining radiation contained in reactor vessel (inside biological shield) (Cobalt-60)
- 65 Years Safe Storage Period Until Decommissioning (Inspect and Maintain)

BGRR:

- Building Cold and Dark (2012)
- Radiological soil contamination remains below building/cap (Cesium-137, Strontium-90)
- Inspect and maintain until building removed

Stack and Grounds:

- Placed in safe storage state (2012)
- Inspect and maintain until decommission and dismantlement (by 2020)
- Contains low-level radioactive contamination (Cesium-137, Strontium-90, tritium)

Former Reactor Facilities Surveillance and Maintenance: Inspections

- Detailed Surveillance and Maintenance Manuals developed for each facility (updated periodically)
- Inspection team includes GW Protection Group, DOE, Facilities and Operations, Industrial Hygiene, and Radiological Facility Support personnel
- Routine inspection frequencies vary from quarterly to annually according to facility
- Observe general building and structural conditions, inspect for indications of moisture/leaks, test water infiltration detectors/alarms/security systems
- Non-routine inspections are conducted after severe weather events, earthquakes (2011), and in response to water infiltration alarms
- Inspection results communicated with regulators

Former Reactor Facilities Surveillance and Maintenance: Inspection Observations/Issues

HFBR:

- ✓ Water infiltration false alarms
- ✓ Water in generator room
- ✓ Condensation

BGRR:

- ✓ Water intrusion in former office areas following precipitation events, minor hurricane Sandy window damage
- ✓ Minor roof leaks to former office areas

Stack and Grounds:

- ✓ Stack drain tank
- ✓ Safety improvement to ladder climbing apparatus and platforms
- ✓ Paint degradation

Former Reactor Facility Surveillance and Maintenance: Significant

HFBR:

- ✓ Moved leak detection panel outside of confinement dome
- ✓ Replaced exhaust fan
- ✓ Security system hardware/software upgrade

BGRR:

- ✓ Covered vents above 2nd floor offices (east side).
- ✓ Planning to replace 2nd and 3rd floor office windows 2014
- ✓ Replaced 1st floor sample room windows
- ✓ Repairs to roof

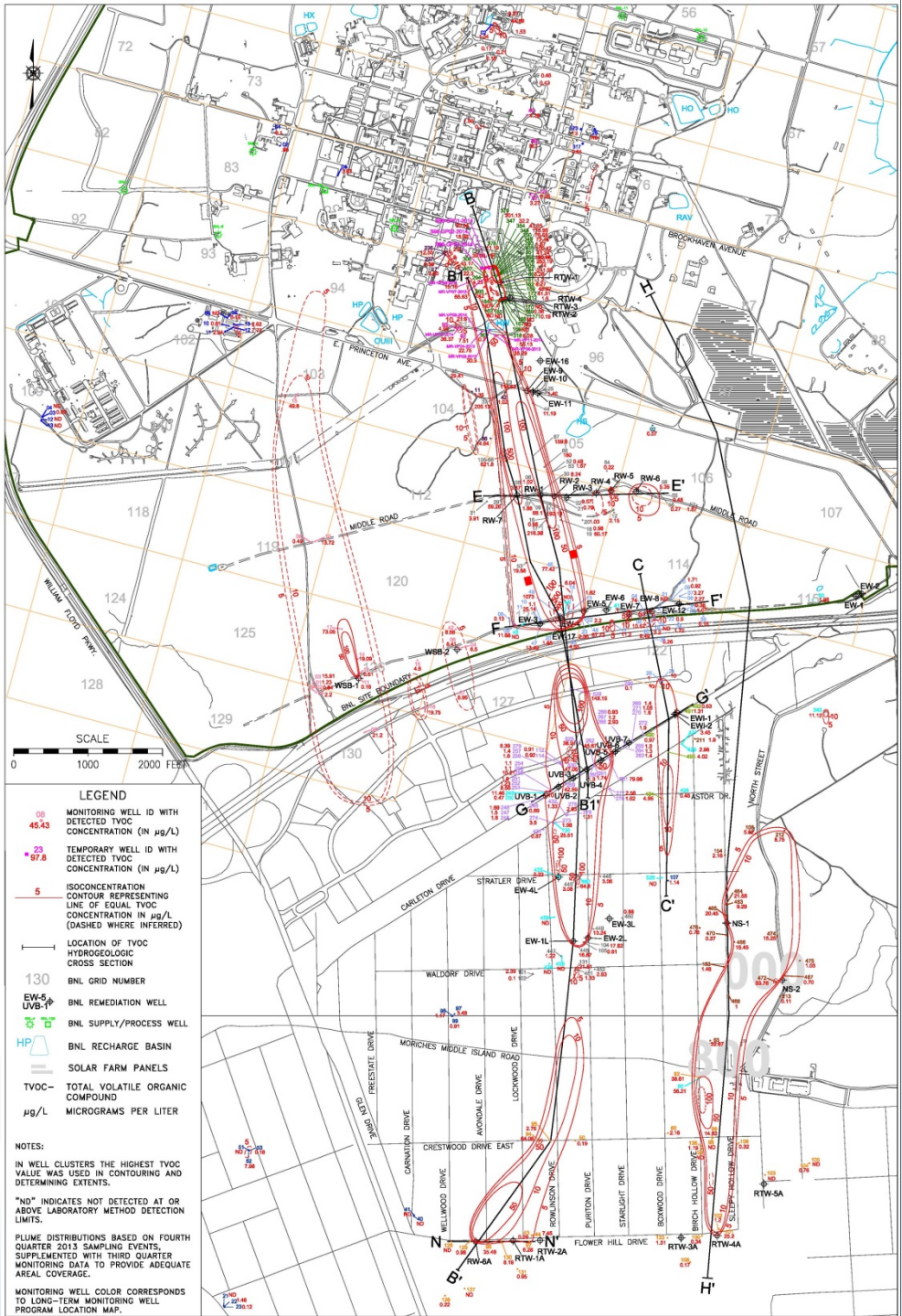
Stack and Grounds:

- ✓ Increased pump outs of stack drain tank, modified response procedure
- ✓ Safety improvements to ladder and upper platform

Questions

Groundwater Cleanup Update: Industrial Park VOCs

- Restarted Industrial Park extraction wells UVB-3, 4, 5, and 6 in April
- Characterizing deep VOC contamination in Industrial Park off-site
- Install total of eight temporary vertical profile wells (four completed to date)
- Existing Industrial Park Treatment System extraction wells too shallow to capture and treat deeper VOCs
- Install two additional deep extraction wells
- Utilize partially decommissioned Industrial Park East system



Questions