4/25/06

# Braidwood Tritium Contamination

Tritium Remediation Project

## Onsite Water Storage

## Onsite Water Storage

## Where Is It Coming From

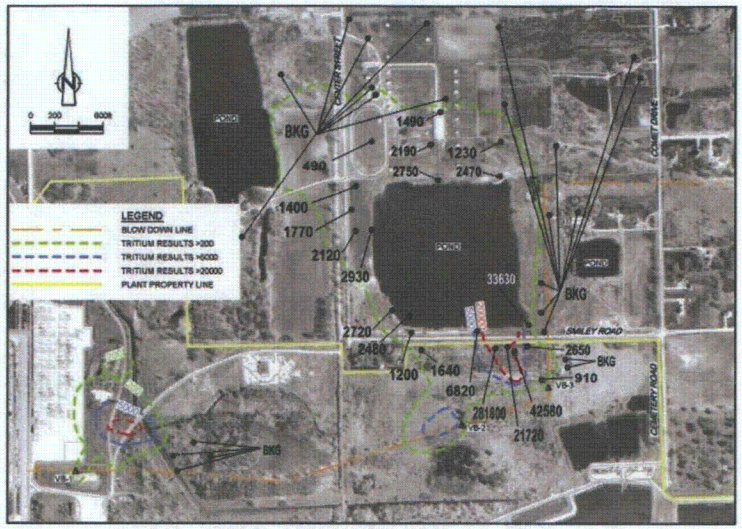
- Operations
- Outage
- Last Discharge – November 23, 2005
- Environmental Contamination

A-1

D-2

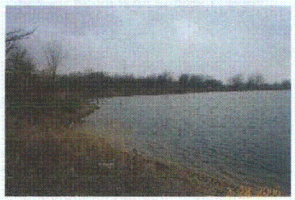
**NRC Groundwater Measurement Results**

(December 2005 - February 2006)




BKG = Concentrations at or below normal environmental background levels
Numerical results in picocuries per liter

# Environmental Contamination



# Interim Remediation

- Exelon Pond
  - Remove 5 – 7 feet of water and maintain
  - Discharge via Blowdown line to Kankakee River
  - Create a cone of depression in the groundwater

# NRC Areas of Concern

- Leak prevention
- Leak detection
- Leak mitigation

## Leak Prevention

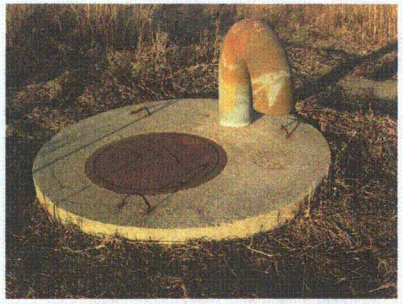
- Operation of the Blowdown Line
  - Continuous flow/pressure in the line
- Vacuum Breaker Inspections

## Leak Detection

- Continuously monitored leakage detection system
  - Sensors installed in Vacuum Breakers
  - Communications via cellular phone and internet
  - Remote/local pump shutdown

## Leak Mitigation

- Sealing of Vacuum Breaker Vaults



## NRC Inspection

- Vacuum Breaker Pit Modifications
  - Sealant
  - Detection System
- Blowdown Line Modification
- ODCM Changes and Procedures
- Sampling and Analysis

## Ongoing Issues

- State of Illinois Attorney General
- Will County

## Status of Braidwood Inspection

Preliminary Findings and SDP Evaluation

## Preliminary White Finding

- Failure to properly quantify, assess, and report the radiological impact of the unplanned releases from the circulating water blowdown line in a timely manner when the releases were initially identified

## Violations

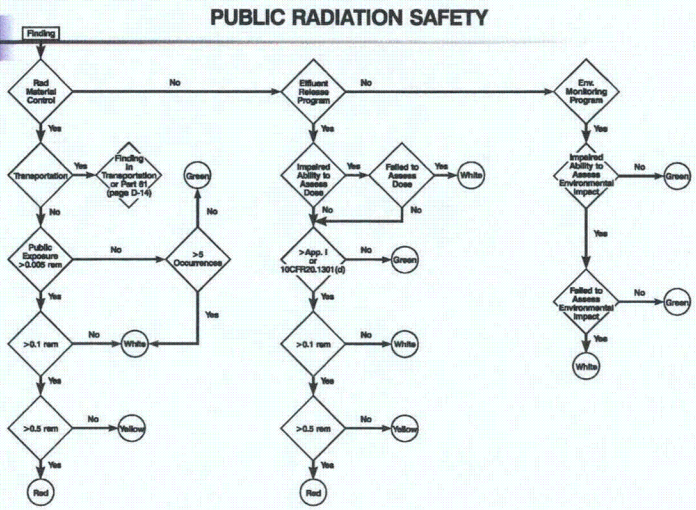
(1) the failure to perform adequate radiological surveys, as required by 10 CFR 20.1501;

(2) the failure to adequately implement a program to assess the cumulative dose contributions, as required by Technical Specification 6.8.4.e.5;

(3) the failure to conduct an adequate environmental monitoring program to provide data on measurable levels of radiation and radioactivity in the environment resulting from the releases, as required by Technical Specification 6.9.1.6,

(4) the failure to report the unplanned releases in annual reports, as required by Technical Specification 6.9.1.7; and

(5) the failure to maintain records of the spills that resulted in the spread of contamination in and around the facility, as required by 10 CFR 50.75(g) and which are being considered for escalated enforcement action in accordance with the NRC's Enforcement Policy.




## Status of Report

- Commission Intervention
- NRR Prepared Memo to Commission
  - Issued April 19, asking 10 day response
  - Commission Feedback
- ON HOLD

## Who's Been Interested

- Senators Durbin and Obama
- US Reps Weller and Biggert
- State of Illinois
- Will County
- Braidwood, Godley
- Union of Concerned Scientists, et al
- Public