



Exelon Nuclear Byron Generating Station

**U.S. NRC End-of-Cycle
Public Meeting**

July 18, 2012

Recent Accomplishments

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- ✓ Successful Unit 2 Fall 2011 refueling outage
- ✓ January – 8 Initial License class graduates (3 Reactor Operators / 5 Senior Reactor Operators)
- ✓ Dry cask spent fuel campaign completed safely (8 casks)
- ✓ Best ever refuel dose performance (44.907 rem)



Byron Natural Draft Cooling Tower Project

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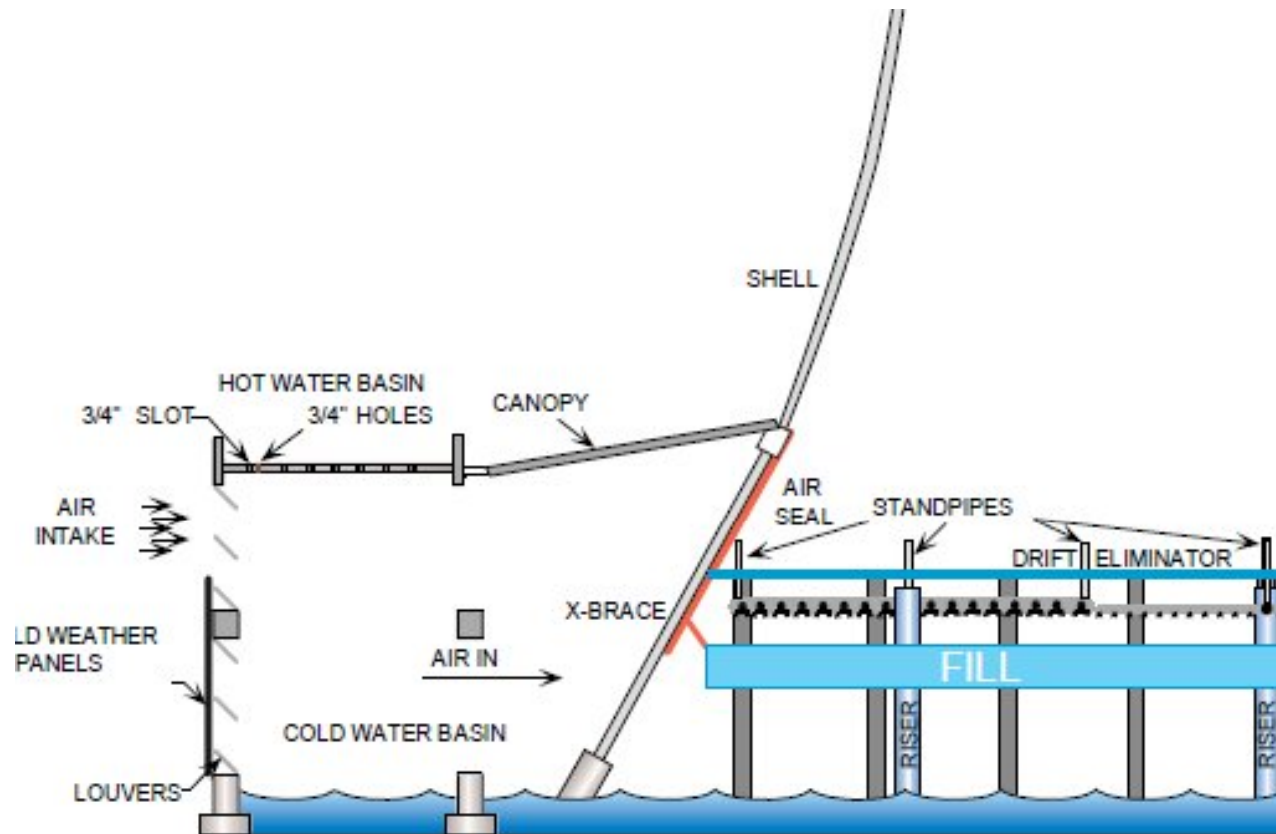
Cooling Tower Project

- ✓ Byron Station will begin a yearlong maintenance project to upgrade equipment inside both its cooling towers.
- ✓ The internal “fill packs” in each tower will be replaced (2,500 per tower). The fill packs are used to channel water through the tower to aid in quicker cooling of the water.
- ✓ While these packs sometimes fail due to debris accumulation, they are now failing at a quicker rate. Instead of ongoing maintenance to replace these packs, a full overhaul will be completed.



Byron NDCT Fill Arrangement

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- ✓ Each tower contains approximately 2500 fill racks, which vary in length from 4' to 7'
- ✓ ~750,000 cubic feet of PVC Fill

Cooling Tower Project

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- ✓ The fill in the Unit 1 tower will be replaced in the fall of 2012, with the Unit 2 tower completed in the spring of 2013.
- ✓ In the interim, portable Mechanical Draft Cooling Towers will be used to assist in the cooling of water and aid in power production



Insulator Failures and Unusual Events

January & February 2012

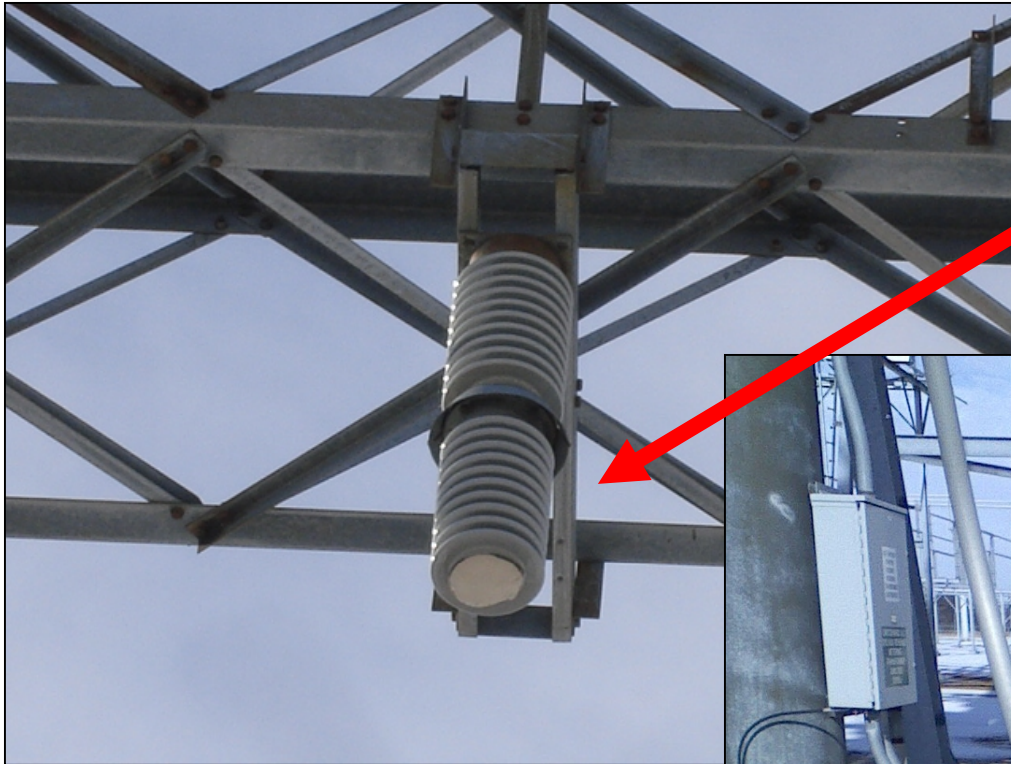
Bus Insulator Failure

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- ✓ At approximately 10:01 a.m. on 1/30/12, an insulator in the Switchyard failed, causing an automatic shutdown on Unit 2.
- ✓ The Insulator failure was attributed to poor quality (porosity) of the porcelain during manufacturing in 1977. More than approximately 40% of the fracture cross-section and insulator cement/mortar shows aging.
- ✓ Operators had to manually start the Emergency Diesel Generators.
 - The site is evaluating a modification to be installed that will correct a vulnerability associated with this type of failure

Unit 2 Trip - Switchyard

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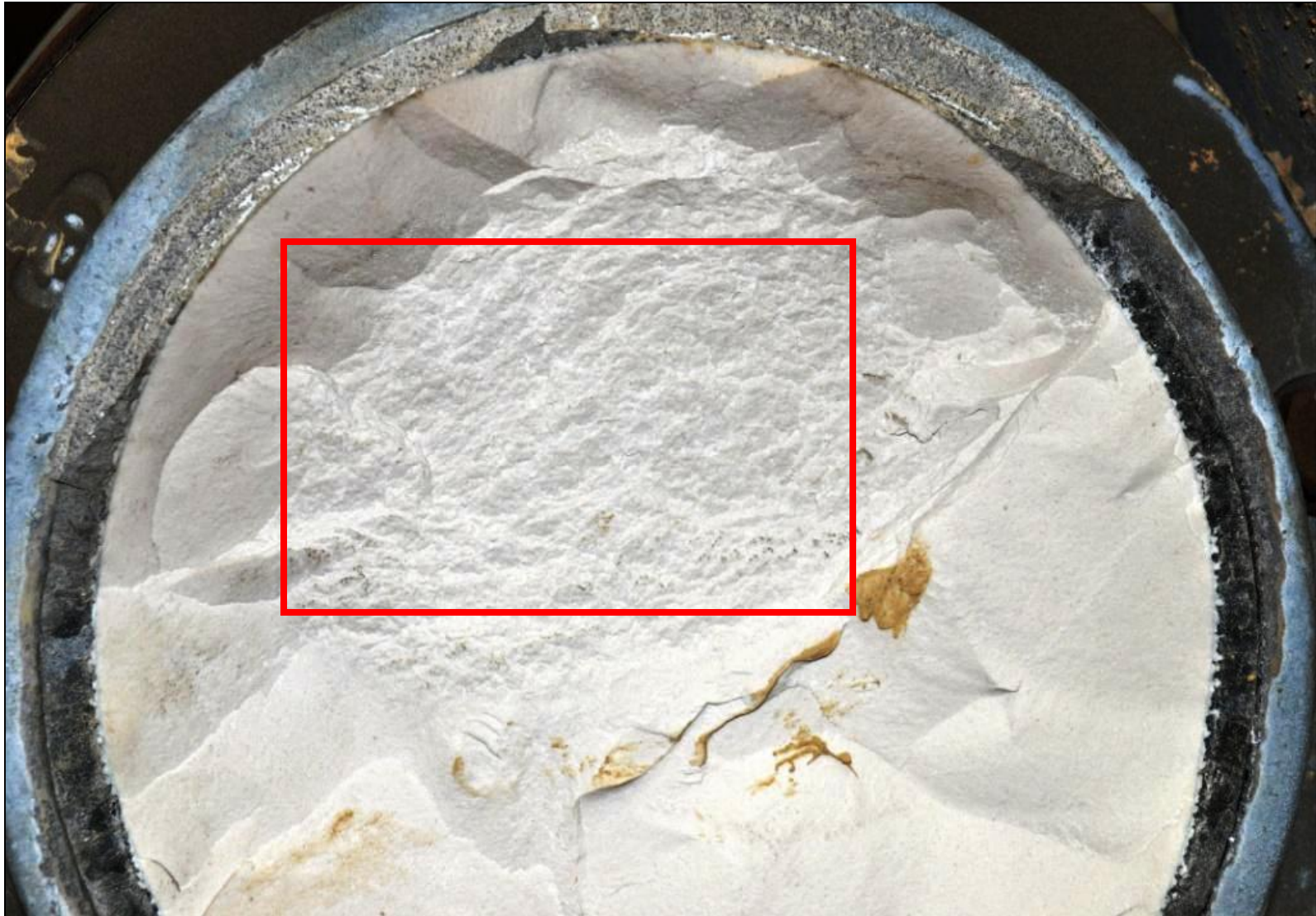
What's left of failed insulator



Rest of insulator on ground

Bus Insulator Fractures

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- ✓ The site replaced 27 insulator stacks on the SAT equipment and also in the switchyard.
 - Some work occurred online, while other work was done during two maintenance outages (one on each unit).
- ✓ During the upcoming outage, the site will complete some SAT work as well as other PMs.

Byron Station Community Outreach

- ✓ In 2011, Byron Station and its employees donated more than \$250,000 to local charities, civic groups and worthwhile causes, including:
 - Employees donated more than \$160,000 to the United Way
 - Byron Station donated \$10,000 to the City of Oregon and Oregon Park District for help with refurbishments to the historic Oregon Coliseum
 - Scholarships for students at Byron, Oregon and Stillman Valley High Schools totaling \$3,000
 - Donated \$35,000 to the Hoo Haven Wildlife Rescue and Rehabilitation organization
 - Sponsor of festivals in Byron, Davis Junction, Leaf River, Mount Morris, Oregon and Stillman Valley.
 - At the Station's Children's Christmas party, employees collected hundreds of pounds of food and nearly \$1,000 for the Salvation Army toy drive.
 - Donated nearly \$10,000 to various walks, pledge drives and golf benefits

- ✓ Station Focus Areas:
 - Excellence in Corrective Action Program
 - Excellence in Human Performance/Technical Human Performance
 - Excellence in Equipment Reliability
 - Excellence in Work Management
- ✓ Fall B1R18 Unit 1 refuel outage
- ✓ Summer grid reliability operations
- ✓ INPO Evaluation and Assessment - December