

Exelon
Pandemic Planning
Utility Interface With
the NRC

Ralph Bassett

Meeting Goals

- ✓ Provide the NRC with a high level overview of the Exelon Nuclear Pandemic Response Plan
- ✓ Review interface with the Regional and National NRC Pandemic Response Plans



Objectives

- ✓ Share terminology associated with the Exelon Pandemic Plan escalation trigger points
- ✓ Share key elements of the Exelon Nuclear's Pandemic Response Plan
- ✓ Discuss support of inspection activities and potential needs and options for regulatory relief
- ✓ Identify next steps

Pandemic Planning Assumptions

- ✓ Human to human transmission of H5N1
- ✓ Worldwide impact within three to eight weeks
- ✓ Three waves, each being six to eight weeks long
- ✓ No available vaccine; anti-viral medications in short supply
- ✓ 25-35% infection rate; 2% mortality rate
- ✓ Up to 40% work force reduction
- ✓ Supply chain and fuel disruptions
- ✓ Services and transportation disruptions
- ✓ Schools, day care closures

Exelon Pandemic Response

- ✓ Utilizes “Response Stage” terminology as trigger points for escalation of response actions, which are similar to US Federal Government Centers for Disease Control (CDC) Response Stages
- ✓ The Exelon Nuclear plan was drafted consistent with the guidance of NEI 06-03, “NSCC Influenza Pandemic Threat Summary and Planning, Preparation, and Response Reference Guide,” Revision 1 [November 2006]
- ✓ Plan development and testing included participation with the NEI NSCC Pandemic Task Force, benchmarking with multiple nuclear utilities, and cooperative assistance for walkthrough evaluations by members from other nuclear utilities

Exelon Pandemic Response

- ✓ Plan is written to address a severe pandemic situation, and is scalable for lower projected severity pandemics
- ✓ All Exelon entities escalate response stages concurrently (i.e., ComEd, each nuclear station, and the corporate offices) based on executive crisis management decision making process
- ✓ Rigorous access control to stations and buildings to include processing through a site health screening prior to each entry and use of personal hygiene PPE (Personnel Protective Equipment)

Pandemic Plan Terminology

✓ Pandemic Response Stages:

- **Stage 0** – Planning, Awareness, and Maintenance
- **Stage 1** – Suspected Human Outbreak Overseas
- **Stage 2** – Confirmed Human Outbreak Overseas
- **Stage 3** – Widespread Human Outbreaks Overseas
- **Stage 4** – First Case in North America
- **Stage 5** – Pandemic Conditions Throughout the US
- **Stage 6** – Recovery and Preparation for Subsequent Pandemic Waves

✓ Pandemic Severity Index (PSI) – a CDC projection of impact:

- **Severe** – Category 4 or 5
- **Moderate** – Category 2 or 3
- **Less Severe** – Category 1

Health Screening

- ✓ Daily (seven days per week) self-screening is performed by every employee beginning at Stage 2:
 - Fever, chills, headache, muscle aches, cough, or shortness of breath within the last 24 hours?
 - Close contact with another person that is experiencing some or all of these symptoms within the last eight days?
 - Returned from travel (air, sea, or land travel) within the last eight days?

- ✓ For site or office building access, beginning at Stage 3:
 - Qualified health screener review of health status
 - Mandatory use of PPE for workplace infection control
 - Verify current body temperature < 100°F

Exelon Pandemic PPE

- ✓ Personal hygiene protective equipment and supplies required anytime that social distancing (6 ft) can not be maintained
- ✓ Employee PPE kits contain:
 - Procedure masks (disposable surgical mask type)
 - Hand sanitizer
 - Surface disinfectant wipes
 - Tissues
 - Digital thermometer
- ✓ Request Inspectors to follow these same screening, PPE and hygiene measures to avoid virus introduction



Exelon Actions Summary

Stage 0 (Planning, Awareness, and Maintenance):

- ✓ Pandemic Plan development as expansion of existing Business Continuity Planning (BCP) process
- ✓ Testing of plan:
 - Two day walkthroughs recently completed at each of the Exelon Nuclear stations and corporate office locations
 - Ongoing drills as an element of BCP maintenance and testing
- ✓ Staffing (by name), consumable requirements, Information Technology requirements, and location specific logistics defined
- ✓ Content review/update two times per year

Exelon Actions Summary

Stage 1 (Suspected Human Outbreak Overseas):

- ✓ Immediate content review/update
- ✓ Extensive communication activities to employees, family members, and critical contractors
- ✓ Inventory consumables, prepare purchase orders to support eight weeks without deliveries
- ✓ Consideration of immediate purchase for long lead time items
- ✓ Health screener training, qualification, and walkthroughs completed

Exelon Actions Summary

Stage 2 (Confirmed Suspected Human Outbreak Overseas):

- ✓ All employees begin self screening and reporting of results daily
- ✓ Purchase consumables to support eight weeks without deliveries
- ✓ Fully enable remote support staffing capabilities (Exelon IT, home IT, documents, etc)
- ✓ Set up PPE distribution location and logistics
- ✓ Set up health screener location

Exelon Actions Summary

Stage 3 (Widespread Human Outbreaks Overseas)

- ✓ Stage 3 – Stage 5 could be very rapid (*potentially within 2 days*)*
- ✓ All non-essential gatherings and meetings cancelled
- ✓ Pandemic infection control implemented:
 - Site access health screener stations set-up
 - Social distancing (6 ft) required
 - Use of PPE if < 6 ft from others
- ✓ Adjust personnel work schedules to support critical staffing plan (supercrew) assignments and rotation

* *If initial “outbreak” is within Exelon territory, the plan supports going directly from Stage 2 to Stage 5*

Exelon Actions Summary

Stage 4 (First Case in North America):

- ✓ Stage 4 – Stage 5 (could be very rapid or even immediate)
- ✓ Quickly establish critical (supercrew) staffing and 12 hour shift rotation
- ✓ Move all non-critical functions to “Remote Staffing” in accordance with pre-planned actions
- ✓ Monitor staffing, consumables, and infrastructure for consistency with planning assumptions
- ✓ Site access health screener positions staffed 24/7
- ✓ Pandemic access limitations implemented (supplies, equipment, and personnel) with proper authorization

Draft Critical Staffing (Supercrew)

Each crew has defense-in-depth staffing numbers to handle a loss of up to 2 positions per department without need for replacement

In addition, supplemental personnel are available as stand-by to supplement individuals on either the day or night crew as needed. This will limit rotation between the teams

| Department (24 hrs/Day 7 Days/Week) | Dual Unit Site | Single Unit Site |
|--|----------------|------------------|
| Operations | 19 per crew | 16 per crew |
| Maintenance | 17 per crew | 12 per crew |
| Chemistry | 4 per crew | 3 per crew |
| Radiation Protection | 5 per crew | 4 per crew |
| Activated Plan Manager | 1 per crew | 1 per crew |
| Health Screener | 3 per crew | 3 per crew |

Plus extra security on each shift

| Department (12 hrs/Day 7 Days/Week) | Dual Unit Site | Single Unit Site |
|--|----------------|------------------|
| Engineering | 10 per crew | 8 per crew |
| Information Technology | 2 per crew | 2 per crew |

Ensures adequate on-site ERO staffing

Exelon Actions Summary

Stage 5 (Pandemic Conditions Throughout the US):

- ✓ Maintain actions implemented with Stage 4 declaration
- ✓ Anticipated “wave” lasting six to eight weeks
- ✓ Plan actions assume a CDC Pandemic Severity Index level of “Severe” (Category 4 or 5 Pandemic)

Exelon Actions Summary

Stage 6 (Recovery):

- ✓ Structured and managed process to back out of implementation actions based on Exelon “Response Stage” declaration
- ✓ Consumables inventoried and reordered as required
- ✓ Staffing and logistical information
- ✓ Prepare for potential next wave of pandemic

Compatibility of Plans

- ✓ The Exelon Plan was written utilizing:
 - Current Exelon business continuity planning concepts and structure
 - Guidance of NEI 06-03, “NSCC Influenza Pandemic Threat Summary and Planning, Preparation, and Response Reference Guide,” Revision 1 [November 2006]

- ✓ The Exelon Plan is compatible with the North American, US Federal, State, County, and Local Municipalities plans:
 - Personnel and equipment access to stations
 - Protocol and communication regarding suspected infectious personnel
 - Interface and awareness of anti-viral or vaccine allocations and strategic national stockpiles

Next Steps

- ✓ Validate consistent expectations and compatibility between Exelon and NRC Pandemic Plans:
 - Coordinate NRC site access during a pandemic
 - NRC inspection activities
 - Regulatory relief process
 - Establish awareness of NRC Incident Response Team site access during a pandemic