

# Lessons Learned Phase III Hostile Action-Based Drills

Marty Hug

# Why Are We Here Today?



**Those who forget the  
past are condemned  
to repeat it**

# NEI 06-04 Revision 0

- **Bulletin 2005-02 established criteria and pathway for industry response.**
- **Revision 0 established the initial framework for the design and implementation of a threat-based drill**
  - **Scenario development (scope) standards.**
  - **Performance objective and demonstration criteria standards.**
  - **Ensure reasonable assurance standards are maintained.**

NEI 06-04  
Revision 0

**Nuclear Energy Institute**

**Guideline for the Development of EP  
Drill and Exercise Threat-Based  
Scenarios**

August 2006

Nuclear Energy Institute, 1776 I St. N.W., Suite 400, Washington, D.C. (202.739.8000)

# Recap - Phases of the Initiative

- **Phase I & II – Pilot Phase**
  - Conduct of tabletops and drill to develop, refine and validate new onsite and offsite guidance and objectives
- **Phase III – 1st year industry threat-based drills**
  - Eight Drills conducted to date in 2007; Susquehanna in November
  - NEI, NRC and FEMA observation
  - NRC feedback from the drills
  - Offsite Agency Feedback
  - Industry Peer Observations and Feedback

# NEI Task Force

- **NEI Task Forces:**
  - **Pilot Task Force**
  - **Phase III Task Force**
    - **NEI 06-04 R1**
- **Goal of Task Forces**
  - **Evaluate Drill Expectations and Revised Requirements into a Consistent Demonstration**

# The Goal

**The Goal is to test the interfaces  
between EP, Security and Ops  
consistent with Bulletin 05-02.**

8/2/07 EP Working Group Meeting

Nader Mamish – Deputy Director - NRC

# The Goal

**The Goal is to test the interfaces between EP, Security and Ops consistent with Bulletin 05-02.**

**Also to Test Interfaces with Responding Agencies  
LLEA and Fire Department**

**Offsite Agency Now Become Part of the Plants Event  
Mitigation Strategy**

# Drills in 2007

- **NEI Observed**

- Vogtle
- Quad Cities
- Seabrook
- Point Beach
- Perry
- Brunswick

- **NEI Received Feedback**

- Braidwood
- Prairie Island



# Facilities NEI Observed

- **Control Room / Central Alarm Station**
  - **Two Airliner Events**
  - **One Hostile Force Drill**
- **Incident Command Post**
- **Unified Command (UC)**
- **Alternate Facilities**
- **Off Site Mustering Location**
- **County Emergency Operation Center**

# Consistency in Drill Process

- **NEI 06-04 Revision 0 Not Applied Consistently**
- **Gaps in the Drill Demonstration Identified**
  
- **NEI Determined the Need**
  - **Revise NEI 06-04**
  - **Conduct the Workshop**

# Lets Discuss Lessons Learned

**And Then Today and Tomorrow  
We will Hear From**



**Sue Perkins-Grew  
Joe Anderson  
Steve Erickson  
Jim Tucker  
Jim Jones**



**Bruce Fielding  
Larry Greene  
Kevin Appel  
Steve Giannell  
Diane Coffin  
Vernon Higaki**

# Demonstration of CR / Security Interface

- **In Some Cases, Interface between CR and Security Not Demonstrated**
  - **Security Simulated**
  - **Time Jump**
    - **Skipped over Critical Demonstrations**
    - **May 2007 from NEI Superseded by NEO 06-04 R1**

# Communications

- **NIMS Adds New Communications Paths**
  - **Develop a Road Map**
    - **Example in NEI 06-04 R1**
    - **Discuss in Table Top**
  - **Determine Communication Tools**
    - **Test Tools Before Drill**

# Instill a Sense of Event Recovery Urgency

## ~~Site Area Emergency~~

**GENERAL EMERGENCY:** *Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or **HOSTILE ACTION** that results in an actual loss of physical control of the facility...*

**Imminent Substantial Core Damage  
Potential for Loss of Containment**

**Radiological  
Release**

**Potential  
for  
Radiological  
Release**



# If Event Not Mitigated

**Here**



**GENERAL EMERGENCY: *Events are in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity \***

**or**

**Not  
Here**



***HOSTILE ACTION that results in an actual loss of physical control of the facility...***

**Loss of  
Command &  
Control**

# Loss of Control of Spent Fuel Pool OK

**GE = PAR**

# Protective Action Recommendation

- **General Emergency**
  - Two Miles 360 Degrees
  - Key Hole Out to 5 Miles
  - Possibly not Appropriate
- **Security Event Consideration**
  - Putting General Public on Road
  - Other Hostile Acts
  - Equipment moving to Site
  - Mutual Aid Not in Place

# Airliner Threat Communications

- **Need for NRC to Familiarize Licensee with Protocols**
- **Protocol Provided to NEI in August 2, 2007 Letter**
  - *“Communications Expectations for an Aircraft Threat Scenario”*
  - NRC, August 2, 2007
  - NRC Presentations
- **Additional Lessons Learned Being Evaluated**

# ICP / UC

- **Resources Available at ICP Have to Mimic Actual Conditions**
  - **Space**
  - **Communications**
  - **Location Consideration**
  - **Simulation**
- **Plant Experience**
  - **Operation, Security and Radiological Experience Needed**
  - **Examples of Experience**
- **ICP/UC and EOC Interface**
  - **Demonstration of UC**
  - **Location of UC**



# During Hostile Action

- **Protection of Site Employees**
  - **Duck and Cover PA Messages**
  - **CR Unfamiliar with Procedure**

# After Hostile Action

- **Coordination between**
  - **Ops, Security, LLEA and ERO**
  - **Action Plan**
    - **Operations to Access Plant Damage**
    - **LLEA to help Secure the Site**
  - **Don't Forget – Security Event**
    - **Security not Integrated into OSC**
    - **Crime Scene Preservation**

# Joint Information Center

- **Law Enforcement**
  - **Officer Safety**
  - **Investigation**
  - **Prosecution**
  
- **Need for Separate Public Information Table Top**

# Controlling the Drill

- **Knowledgeable Controllers**
  - **Complex Drill**
  - **May have to Adjust Drill On the Fly**
    - **Fire Demonstrations**
    - **Medical Demonstrations**
- **Central Drill Control**

# Where You Find The Lessons?

- **NEI 06-04 R1**
- **Presentations From the Stars**
- **Table Top Before Drill**
- **NEI Web Site**
- **Send Staff to Drills**
- **NEI Advice**
  - **NEI Check List**
- **NRC**

# **Now Lets Hear From the Stars of Our Program**

**But First Lets Turn Around  
And  
Take a Break**

# **Marty Hug**

**Sr Project Manager Emergency Preparedness**

**Nuclear Energy Institute**

**Phone: (202) 739-8129**

**Mobile: (202) 439-0768**

**Email: [mth@nei.org](mailto:mth@nei.org)**