OFFICE OF REGULATORY STAFF

SCPERI and Gridex

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What is a Pipeline Emergency Responders Initiative (PERI)?

Public-private partnership among emergency response organizations and pipeline operators to improve response to pipeline related incidents.

Why Have an "SCPERI"?

- Significant pipeline incidents happen infrequently, but when they do occur, they have potentially high consequences in loss of life, serious injuries and property damage.
- The Initiative was organized to enhance responses to pipeline emergencies through improved communication and training.

Does it meet Regulatory Requirements?

Emergency Plans - 192.615 and 195.402

- Written procedures for notifying appropriate fire, police, and other public officials of gas and liquid pipeline emergencies

- Establish and maintain liaison with appropriate fire, police, and other public officials

Public Awareness - 192.616 and 195.440

- Messages to emergency responders and public officials

Timeline

- First meetings in November 2015
- Regular meetings at SC Fire Academy to discuss strategy, membership recruitment, partnerships, curriculum and training
- Finalized “Awareness Level” Curriculum in June

South Carolina Pipeline Emergency Response Initiative

Advance the ability of emergency responders to manage pipeline emergencies through improved training, cooperation and communication with pipeline operators.

What is the Objective of SCPERI?

PIPELINE EMERGENCY

CHECKLIST

FOR EMERGENCY OFFICIALS

Pipeline operators will concentrate on shutting down pipeline facilities. Responders should focus on protecting the public and isolating or removing ignition sources.

1. ASSESS THE SITUATION
- ❑ Approach with caution from upwind/crosswind location
  - Do not walk or drive into a vapor cloud or puddle of liquid
  - Don't park over manhole or storm drain
  - Use air-monitoring equipment
  - Note conditions of hazard, weather, surrounding community and available resources
- ❑ Secure the scene, denying entry to unauthorized persons
- ❑ Employ NIMS and Incident Command System
- ❑ Identify hazards
  - Locate pipeline marker sign: product, operator, 24-hour emergency phone number
  - Contact pipeline operator: provide location, your name and phone number
  - Refer to DOT *Emergency Response Guidebook*

2. PROTECT PEOPLE, PROPERTY AND THE ENVIRONMENT
- ❑ Establish isolation zones and set up barricades
- ❑ Rescue and evacuate people
  - Evacuate or shelter-in-place
  - Administer first-aid
- ❑ Eliminate ignition sources
- ❑ Control fire, vapor and /or leak
  - Let primary fire burn
  - Cool surrounding structures
  - Beware hot spot re-ignition

3. CALL FOR ASSISTANCE OF TRAINED PERSONNEL
- ❑ Contact your organization

Develop a comprehensive pipeline emergency response training program that will enhance the capabilities of emergency responders in SC. This program represents a public-private partnership among emergency responders, pipeline operators and regulators. The result leverages the training expertise, organization, command and communication structure of the SCFA, and the expertise of pipeline operators, within a framework that meets the requirements of federal and state laws and regulations for emergency responder outreach.

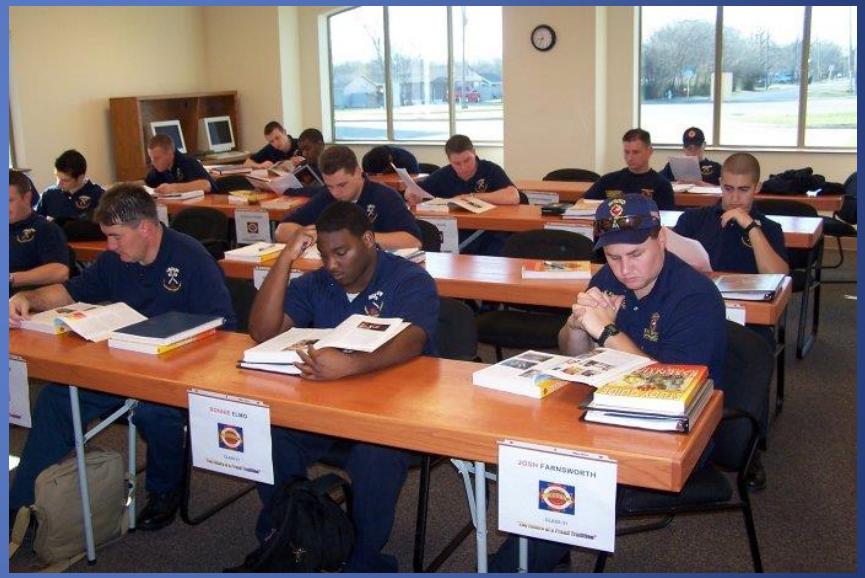
What are the Goals?

- Improve and sustain effective communication among emergency responders and pipeline operators
- Increase emergency responders' awareness of pipelines
- Establish a baseline to evaluate pipeline emergency response preparedness
- Identify weaknesses in existing regulatory and emergency response programs and develop solutions
- Develop a sustainable comprehensive pipeline emergency response training program

Funding Structure

BASELINE FUNDING provided by Pipeline Operators

- Interstate Gas
- Interstate Liquids
- Local Distribution Companies (Investor owned)
- Local Distribution Companies (Municipal owned)



What has SCPERI Accomplished?

<u>Awareness Level Training</u>

- 2709 Pilot Class
- August 29, 2017
- Lancaster Emergency Operations Center

SOUTH CAROLINA

STATE FIRE

2709

Pipeline Emergency Response Awareness

Lesson Plan

Revision 0

Effective Date: _____

What are the Challenges for SCPERI?

- Providing sustainable pipeline safety training for Emergency Responders
- Overcoming low priority placed on pipeline emergencies training
- Key emergency responder participation
- Meeting logistics
- Increased demands on time of ERs
- Establishing baseline to measure progress
- Establishing entity and funding to sustain program

June__, 2016

Name
Title
Organization
Address
City, State, Zip

Re: South Carolina Pipeline Emergency Response Initiative

Dear_____,

Did you know that the state of South Carolina has natural gas, propane, petroleum as well as other hazardous material pipelines running throughout the state? Nearly every city, town, county or community within the state has pipelines that run through or near its jurisdiction. Despite pipeline operators best efforts, pipeline breaches, incidents and accidents still occur. Is your community prepared? Are your emergency responders prepared?

Recently, the Pipeline and Hazardous Materials Safety Administration ("PHMSA"), a branch of the United States Department of Transportation, assisted pipeline operators and emergency response personnel in the development of the Georgia Pipeline Emergency Responders Initiative ("GPERI"). The mission of the GPERI is to "advance the ability of Georgia emergency responders to manage pipeline emergencies through improved training, cooperation and communication with pipeline operators." To accomplish this, they developed training programs for emergency response personnel. A board was created under the Georgia Association of Fire Chiefs to implement and manage GPERI. Board members include: emergency responders, pipeline operators, representatives of the Georgia Fire Academy, Georgia 811 and the Georgia Association of Fire Chief's.

PHMSA has expanded this initiative to South Carolina. Pipeline operators and emergency responders are attempting to develop a program similar to the GPERI. The intent is to establish a multi-agency steering committee consisting of representatives from public safety, damage prevention, emergency management, regulators and industry that will guide the implementation of a training, communications and coordination system to improve emergency response to pipeline incidents statewide. These goals cannot be accomplished without your assistance.

We urge you to participate in this ambitious project that will ensure training, education and information sharing among pipeline operators and emergency responders. Our next meeting will be held at the South Carolina Fire Academy, 141 Monticello Road, Columbia, South Carolina on _____, 2016 at 10:00 am.

Please feel free to call me direct at XXX-XXX-XXX if you have any questions.

Sincerely,

cc:

DRAFT

SC PERI Members

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Misty Wise	SC811	misty.wise@sc1pups.org	803-542-4709
Shawn Marion	Plains LPG Services	shawn.marion@plainsmidstream.com	803-720-7000
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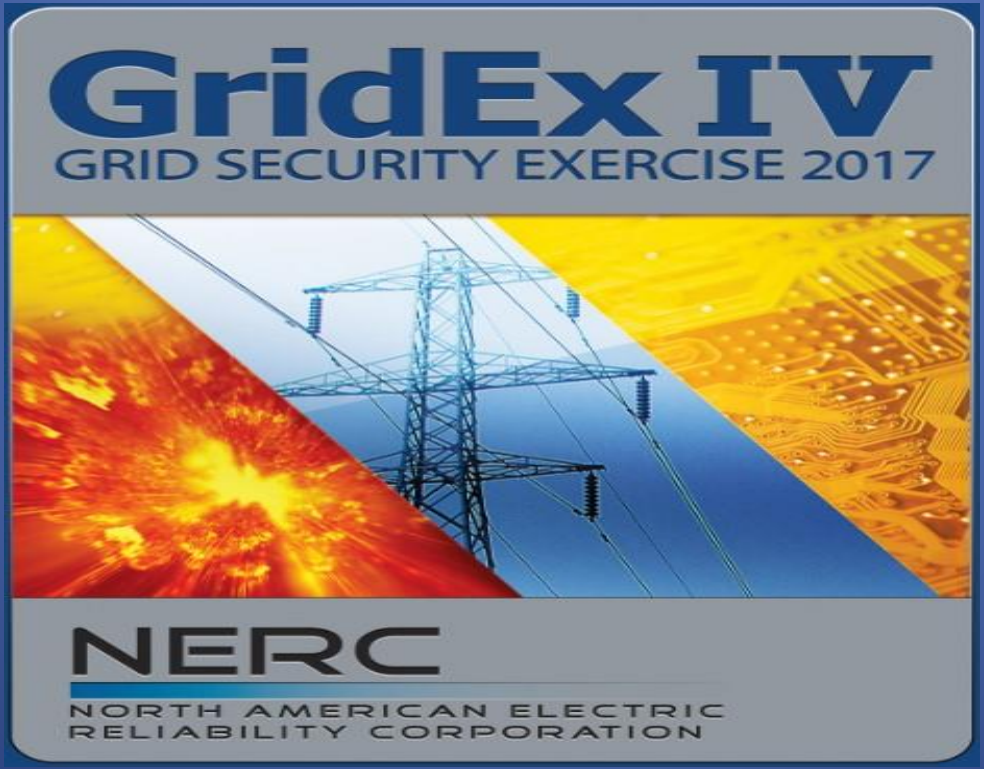
2017 South Carolina State Full Scale Exercise: GridEX IV



What is Gridex?

GridEx IV is an unclassified exercise designed to simulate a cyber/physical attack on electric grid and other critical infrastructures across North America.

Participants include:

- Electric Utilities;
- Regional (Local, State, Provincial) and Federal Government agencies in law enforcement, first response, emergency management and intelligence community functions;
- Critical Infrastructure Cross-Sector partners, and;
- Supply Chain stakeholder organizations

Link: http://www.nerc.com/pa/CI/CIPOutreach/Pages/GridEX.aspx

Exercise dates: November 15 and 16, 2017

How might your system be impacted by a long duration power outage?

A long duration power outage will have impacts on all facets of the economy, including pipeline operators.

Electric Infrastructure Security Council (EIS). *http://eiscouncil.org/Video*

How will SC Emergency Management use GridEX IV?

SCEMD leverages GRIDEX IV as an exercise to assess response and recovery to a widespread long-term power outage with cascading effects on our citizens, infrastructure and environment.

Provides opportunity for state, local and private partners to assess plans and procedures to respond to a long–term power outage with enhanced response to any hazard event at the local level.

GridEX IV Scenario

- South Carolina experiences state-wide rolling power blackouts that occur with little or no warning.
- The outages are the direct result of coordinated cyber and physical attacks by an unknown adversary on the North American power grid.
- The State sustains extensive communication, energy, and transportation infrastructure damage.

GridEX IV Scenario

- Roadways, railways, waterways, and airports are severely impacted state-wide.
- Cellular towers and IT networks are severely degraded or inoperable.
- Due to major extended interruption of utilities, water, fuel, and communications entire communities are isolated.
- Local and State government resources and response capability has been exceeded.
- SC requires immediate assistance through mutual aid from other states and the Federal government.

COMBINED/COMPLEX ATTACK
(GRIDEX IV SCENARIO POSSIBILITY)

- CYBER ATTACK
  - Possible Enabling Operation(s) to support physical attacks
  - Can also be used to create direct physical effects

- PHYSICAL ATTACK
  - Direct Action Operations
  - Designed to created localized physical damage
  - Could be combined with physical attacks at other locations to create widespread effects

SCEMD Focus Areas

- Utilities
- Water
- Health Care
- Transportation
- Communications
- Agriculture

How do we respond and recover based on interdependency risks that jeopardize life, health, safety and security ?

Who Does SCEMD Want to Participate?

- Counties and Municipalities
- SERT
- National Guard (Army and Air)
- Governor's Office
- FEMA Region IV
- US Coast Guard
- USACE
- National Weather Service
- South Carolina Ports Authority

- Private Sector
  - Utilities (Electric, Water, Natural Gas)
  - Communications (Cell, IT, Wireless, Fiber Optics)
  - Healthcare
  - Transportation (Pipeline, Rail, Sea and Air)

- Non-Governmental Organizations
  - American Red Cross
  - The Salvation Army
  - Other VOAD's

What Opportunities are there to Participate?

- Table Top Exercises
- Live Training: Field Deployments of Special Teams
- Operations Center Training: OPS Center Exercise Integration – evaluate SOPs, procedures and protocols

How is the Exercise Designed?

- **Exercise Day 1 Response (15 NOV 0800-1600)**
  - State-wide blackouts and impacts to critical infrastructure severely degrade or paralyze routine operations
  - Event Occurrence/CODE RED publication to bring State Emergency Operations Center (SEOC) to OPCON 1
  - Situation Brief SLED/ESF 12 and Private Sector Partners
  - Master Scenario Events List (MSEL) drives interagency coordination and joint field operations
  - Provide a Situational Assessment in order to conduct time jump to address recovery on Exercise Day 2
  - Conduct Hotwash

How is the Exercise Designed?

- **Exercise Day 2 Recovery (16 NOV 0800-1600)**
  - Time jump to assess recovery at 30 to 90 days post event
  - Updates for key decisions to support recovery/resource allocation/prioritization
  - Assess resources required to assist in intermediate and long-term recovery
  - Identify unique roles and responsibilities in recovery
  - Conduct Hotwash

This is a Game?

Assumptions First 24 hours

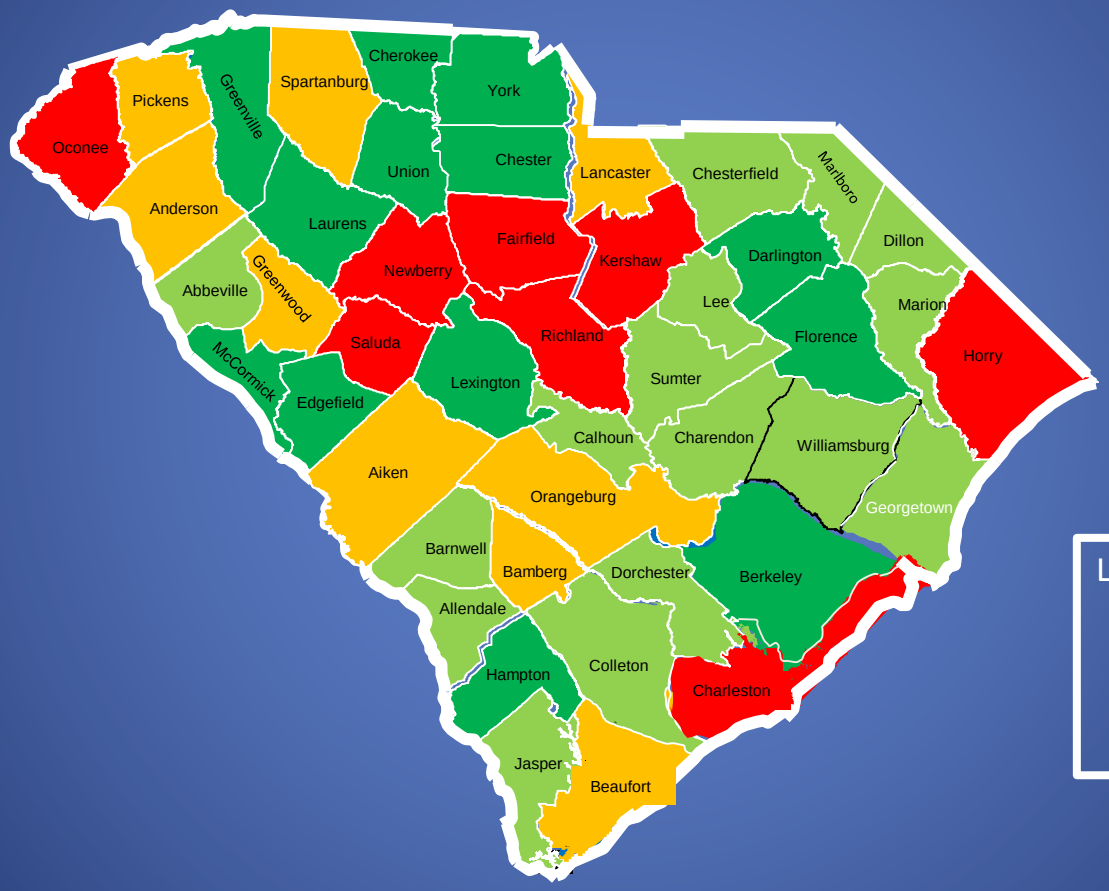
- Cyber and physical attacks complete
- Power outages will impede response operations
- DoD asset support limited based on scale and scope of the disaster
- Limited federal assets available based on regional and multi-state area of impact
- Transportation reduced to ground; air, rail and sea limited
- Complete and partial shut down of industries immediately
- After 48 hours spiraling effects to water and waste water, health care, communications and transportation emerge
- Estimate 10 – 30 days to restore services within the state
- Widespread need for Points of Distribution to assist with water, food and medical care – exacerbated in larger population centers
- Beyond 72 hours expect significant loss of life to residents dependent on power for medical needs

What are things that I should consider for my System?

Operational Considerations

- How do power outages of 48 hours, 10 days, 30 days impact your operations?
- What external support would you require to stabilize systems, restore service?
- What items in your EAP may require assistance from the Public Sector?

GridEX IV County Play



As of July 12, 2017

Legend:

- YES/TBD (13)
- YES/Planning (9)
- NO (8)
- MAYBE (16)

What are the next steps?

August 16, 2017—Meet at ORS

- Refine objectives to shape training scenarios
- Identify training opportunities
- Continue to develop Master Scenario Event List to support training
- Share training and education opportunities
- Final Planning Meeting 30 August (SCEMD)

Comments or Questions?

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