



NRC LICENSEE CONTROL CELL TRAINING

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**Senior Emergency Response
Coordinator**

PURPOSE

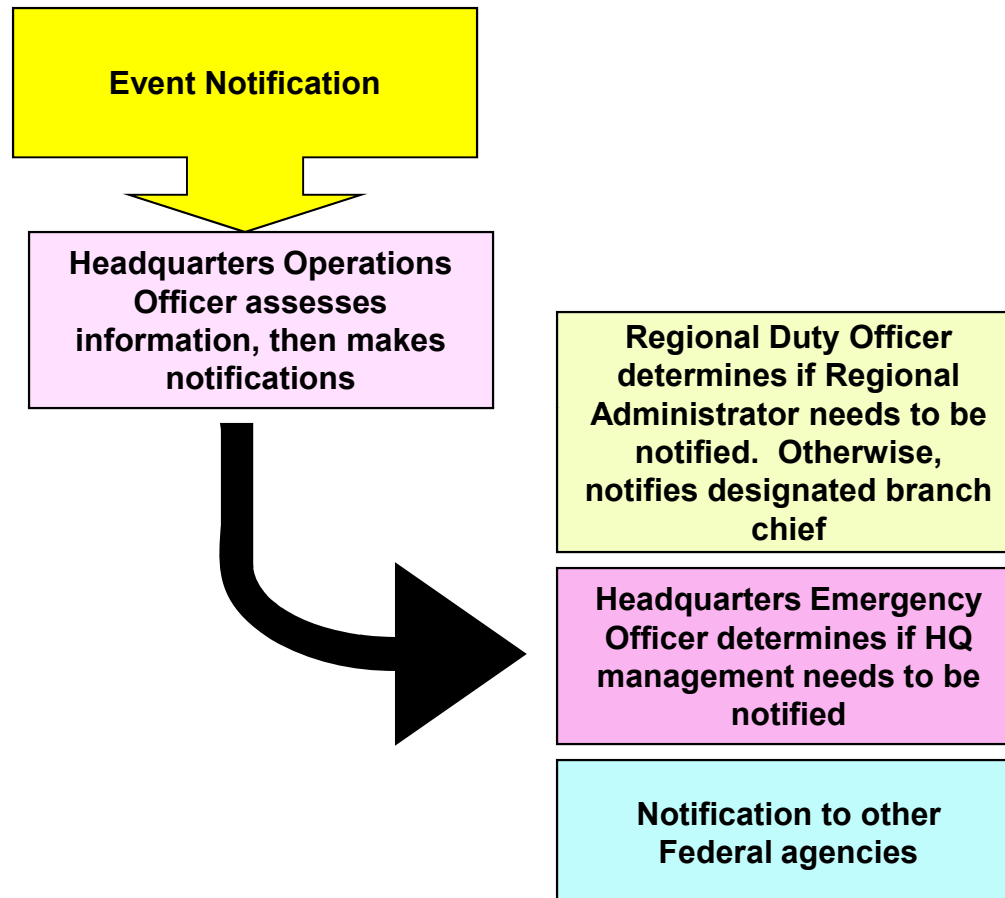
- This training is intended for non-NRC personnel who will act in the role of the NRC during licensee exercises. Therefore, it is important to have a good understanding of:
 - NRC responsibilities and response process
 - NRC response organization and functions
- Please note that this is not the exact process used by the NRC. There are a lot of other internal and Headquarters interfaces / activities that do not have an immediate or direct impact on licensees.
- Use of fewer or more people on the Mock NRC team may require shifting some duties / responsibilities described in this training.



NRC ROLES & RESPONSIBILITIES

- Monitor and independently assess licensee's actions and serve as an independent source of information, advice and technical analyses for the State.
- Coordinate Federal response under the National Response Framework Nuclear/Radiological Incident Annex - Federal support for licensee, State, and local stakeholders.
- Support other Federal agencies and keep them informed of the National Response Framework Nuclear/Radiological Incident Annex response.
- Coordinate public information on the National Response Framework Nuclear/Radiological Incident Annex response for the Federal Government.
- Intervene in a limited fashion to direct licensee actions onsite (rare & unusual circumstances).

NOTIFICATION PROCESS



RESPONSE DECISIONS

NRC Response Decision	Licensee Actions
Take no further action.	Call back when incident is terminated or if conditions degrade.
Activate Regional Incident Response Center / Headquarters Operations Center.	<ol style="list-style-type: none"> 1. Maintain open ENS line (Alert and above). 2. Establish HPN line when requested. 3. Establish security line when requested if security related incident. 4. Brief NRC management on a regular basis.
Dispatch Site Team.	<ol style="list-style-type: none"> 1. Continue items for activated Regional Incident Response Center / Headquarters Operations Center. 2. Interface with team members when they arrive.

RESPONSE TIMING (REAL TIME)

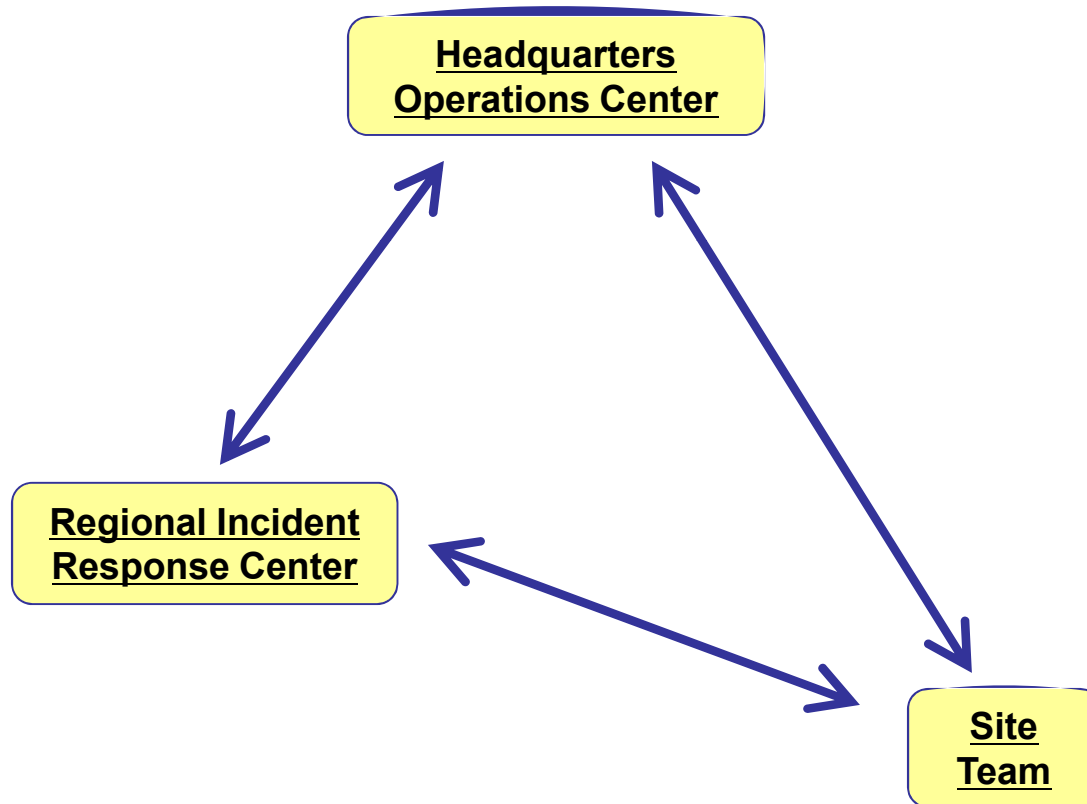
- Response Decision Making / Staffing
 - T_0 = Notification time
 - $T_0 + 0.5$ hours = Decision making must be completed
 - $T_0 + 1.5$ hours = Response centers staffed
- Site Team Travel
 - T_1 = Time decision made to dispatch site team
 - $T_1 + 4$ hours = Plane transporting Site Team departs DFW
 - $T_1 + 6$ hours = Site Team arrival time at local airport
 - $T_1 + 6.5$ hours = Site Team departs local airport
 - $T_1 + 8$ hours = Site Team arrives on site

(Site Team will call for briefing through Headquarters approximately 10 – 20 miles from the site or from the local airport).

TYPICAL EXERCISE TIMING (COMPRESSED)

- 0.0 hours = Initial notification
 - 0.5 hours = Decision to enter Monitoring
 - 1.0 hours = NRC regional facilities staffed for Monitoring
 - 1.5 hours = Decision to enter Activation
 - 2.0 hours = NRC headquarters facilities staffed for Activation
 - 2.5 hours = Decision to enter Expanded Activation / Site Team dispatched
 - 3.5 hours = Site team at local airport
 - 4.0 hours = Site team arrives at EOF
- Goal is to have Site Team in place prior to general emergency

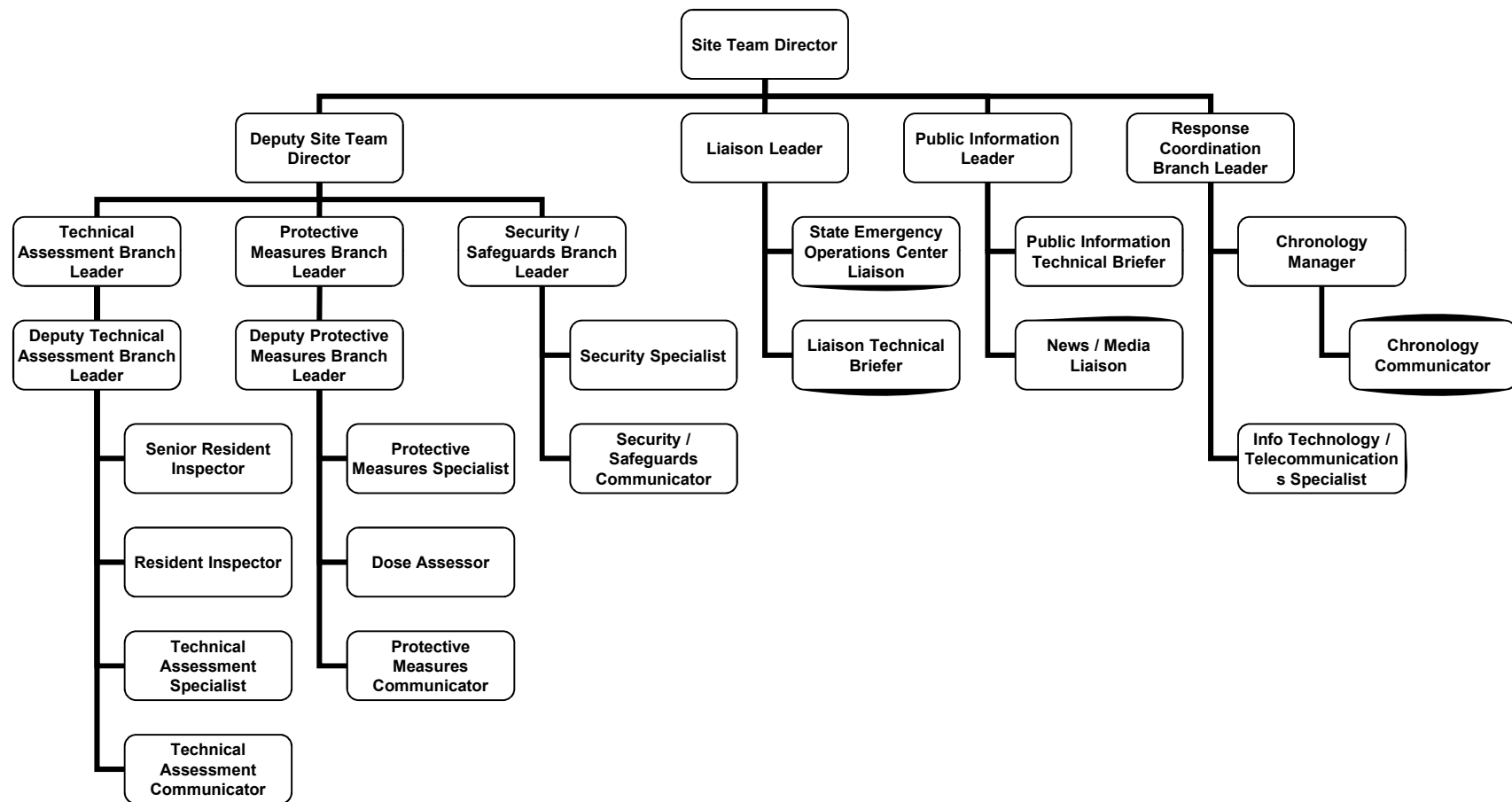
NRC INTERNAL INTERFACE



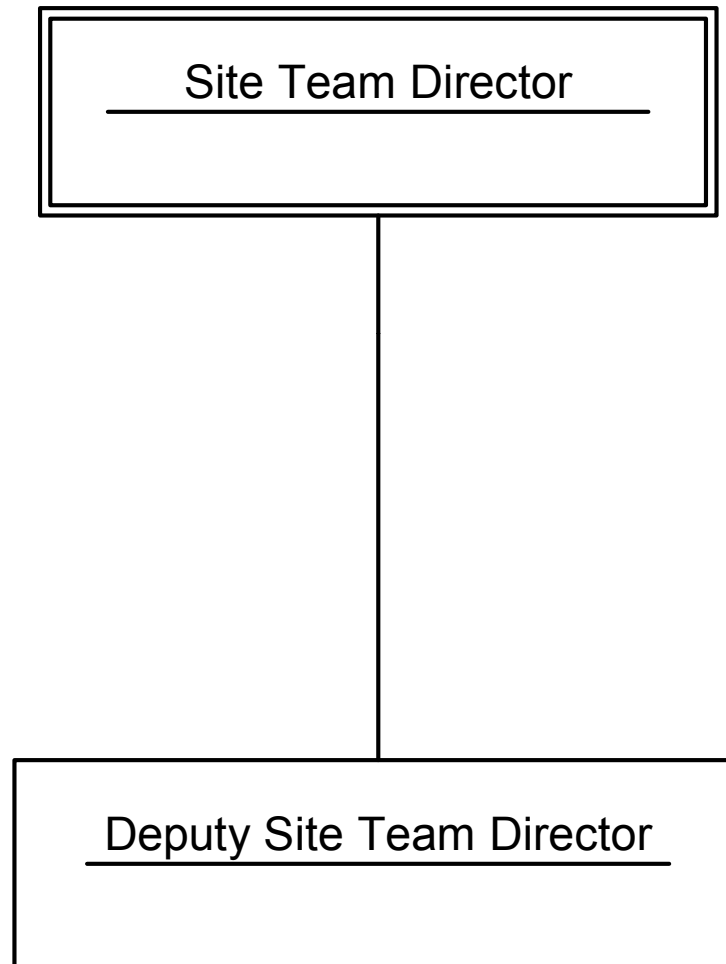
FUNCTIONAL Co-Location

- The NRC Site Team functionally co-locates with the licensee in the Emergency Operations Facility
- The Site Team will arrive at the Emergency Operations Facility and will move to an area to get a quick briefing from licensee (about 15 minutes)
- After the briefing, Site Team members will set up equipment / communications, obtain an individual briefing from licensee counterparts, obtain turnover from NRC Headquarters and Regional Base Team
- Even though the Site Team is onsite and functioning, communication links to NRC Headquarters will continue to operate

NRC SITE TEAM ORGANIZATION



SITE TEAM MANAGEMENT



AUTHORITIES

SITE TEAM DIRECTOR

- Act as the NRC's Federal On-scene Coordinator for an integrated response under the Nuclear / Radiological Incident Annex of the National Response Framework
- Recommend actions to the licensee.
- Recommend offsite actions.
- Act as primary spokesperson for the Federal response concerning Coordinating Agency issues at the site.

TYPICAL AUTHORITIES NOT DELEGATED TO SITE TEAM

- Issue formal technical orders to the licensee for specific actions.
- Interact with Governors of affected states concerning issues not directly or entirely related to any of the delegated authorities.
- Coordinate with The White House, Congress, Headquarters of other Federal Agencies and international organizations.

FOCUS AREAS:

SITE TEAM DIRECTOR

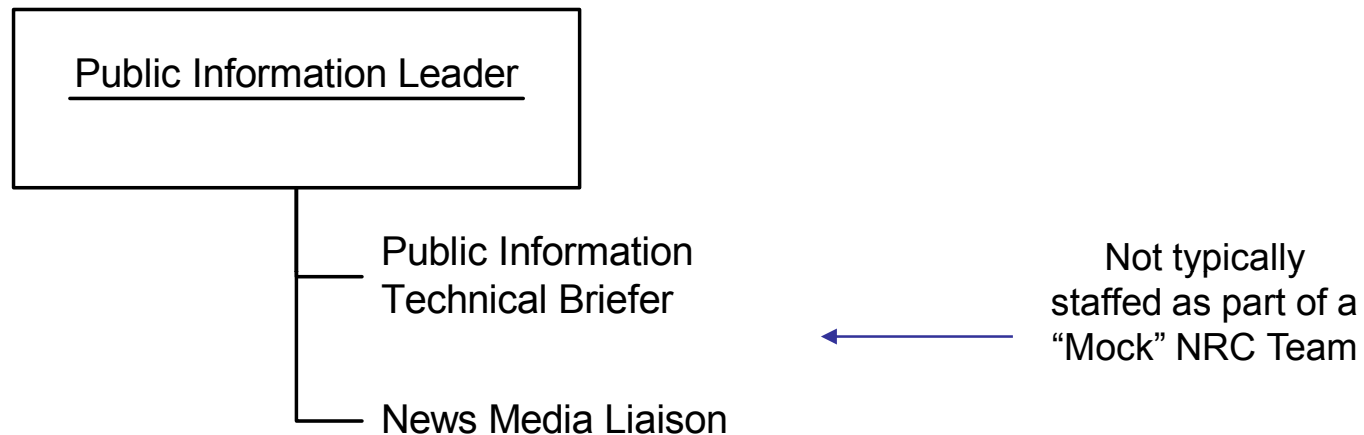
- Manage the NRC's on-scene response to the incident.
- Set the battle rhythm for NRC's on-scene response activities.
- Keep the big picture in mind.
- Keep in touch with the Liaison Leader for issues / requests involving State, local and other Federal agencies responding to the incident.
- Keep in touch with the Public Information Leader to ensure that the proper media message is being sent out.
- Keep information flowing to and from the Public Information Branch and Liaison Branch.

FOCUS AREAS

DEPUTY SITE TEAM DIRECTOR

- Keep the big picture from a technical perspective.
- Ensure that the licensee is taking appropriate actions to terminate the incident.
- Ensure that the licensee is taking appropriate actions to mitigate the consequences.
- Ensure that the licensee is making protective action recommendations to State and local officials, as warranted.
- Assist with information sharing between teams.
- Acts for the Site Team Director in their absence.

PUBLIC INFORMATION STAFFING



PUBLIC INFORMATION

- The Public Information Branch Leader serves as the on-scene media representative for the NRC.
- The Public Information Technical Briefer listens to the Reactor Safety Counterpart Link (RSCL) to maintain awareness of the current situation and routinely brief the Public Information Branch Leader.
- When staffed, the News Media Liaison Officer takes calls / questions from public and media outside of Joint Information Center, performs external research on issues, and prepares the first draft of press releases.

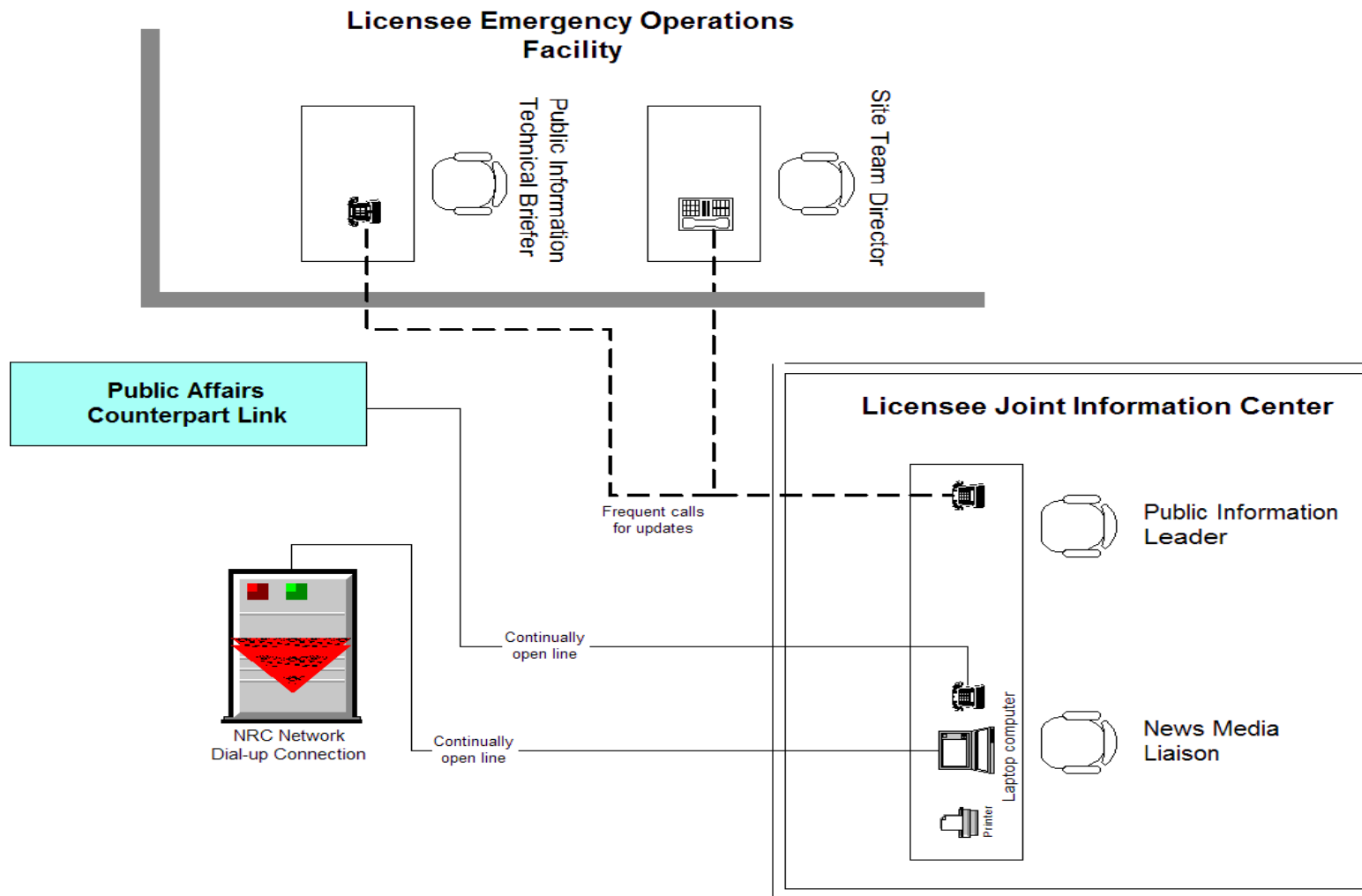
PUBLIC INFORMATION

TASKS:

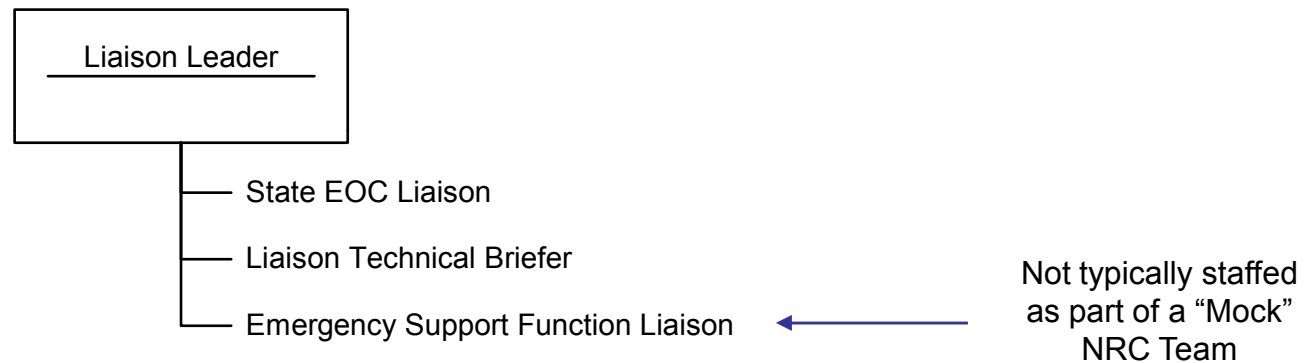
- Participate in press conferences.
- Draft a press release:
 - Soon after arrival of Site Team / transfer of authority to Site Team Director
 - Upon notification that the Secretary of the Department of Homeland Security has declared an Incident of National Significance
 - On a regular basis as the incident progresses
- Transmit draft press releases to the Site Team Director for approval
- NEVER provide protective action “recommendations” to the media.

PUBLIC INFORMATION

COMMUNICATION LINKS:



LIAISON STAFFING



Liaison

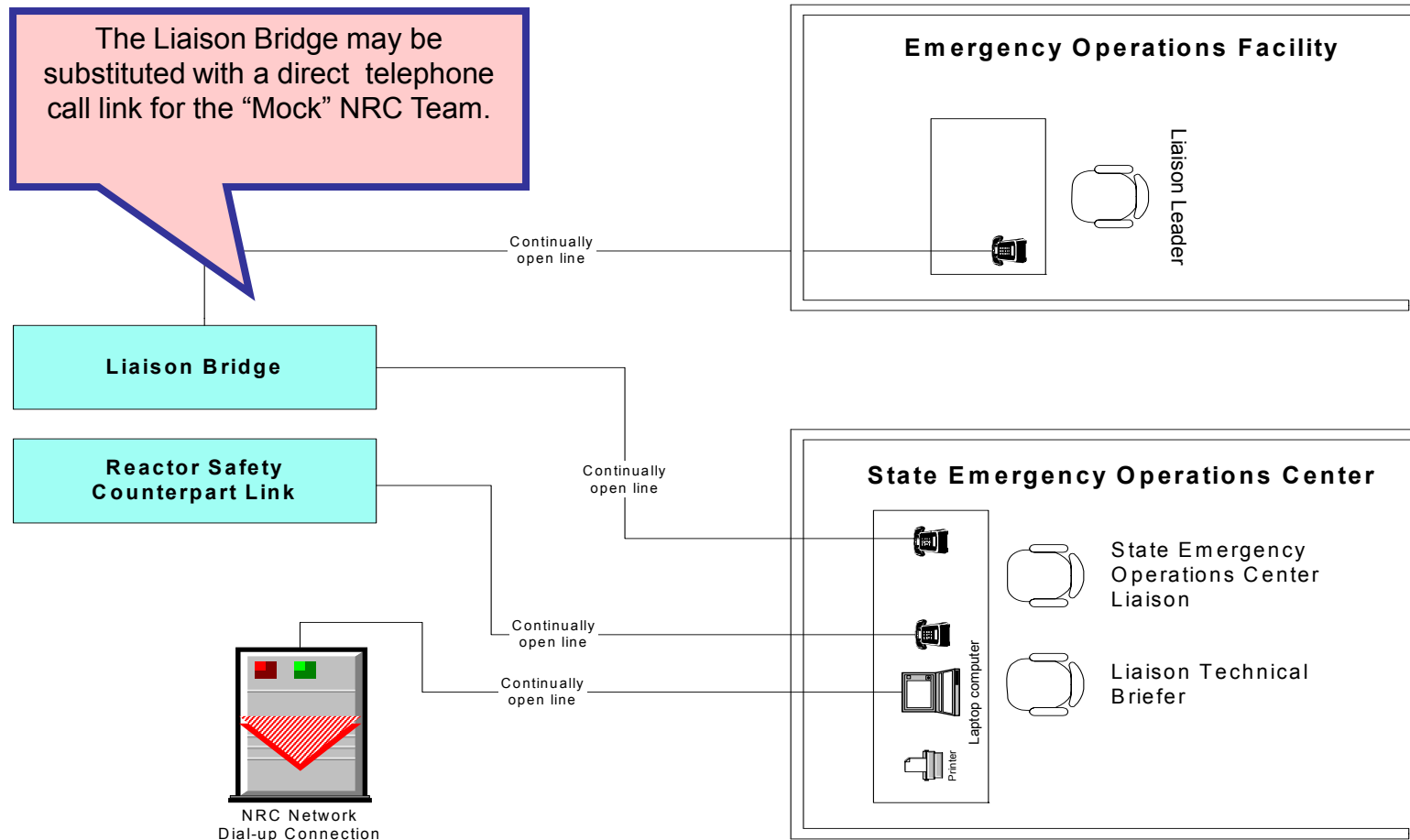
- The Liaison Leader keeps the Site Team Director informed regarding offsite activities and interfaces with State, Local and other Federal representatives in the licensee's Emergency Operations Facility.
- The State Emergency Operations Center Liaison serves as the primary contact point for interfacing with the State officials that are not on-site and routinely briefs the Liaison Leader on activities at the State Emergency Operations Center.
- The Liaison Technical Briefer listens to the Reactor Safety Counterpart Link to keep up with the current situation and reports protective action decisions and requests for assistance as they occur.
- Requests for Federal assistance are processed through the Liaison Leader to Headquarters.

Special Advice

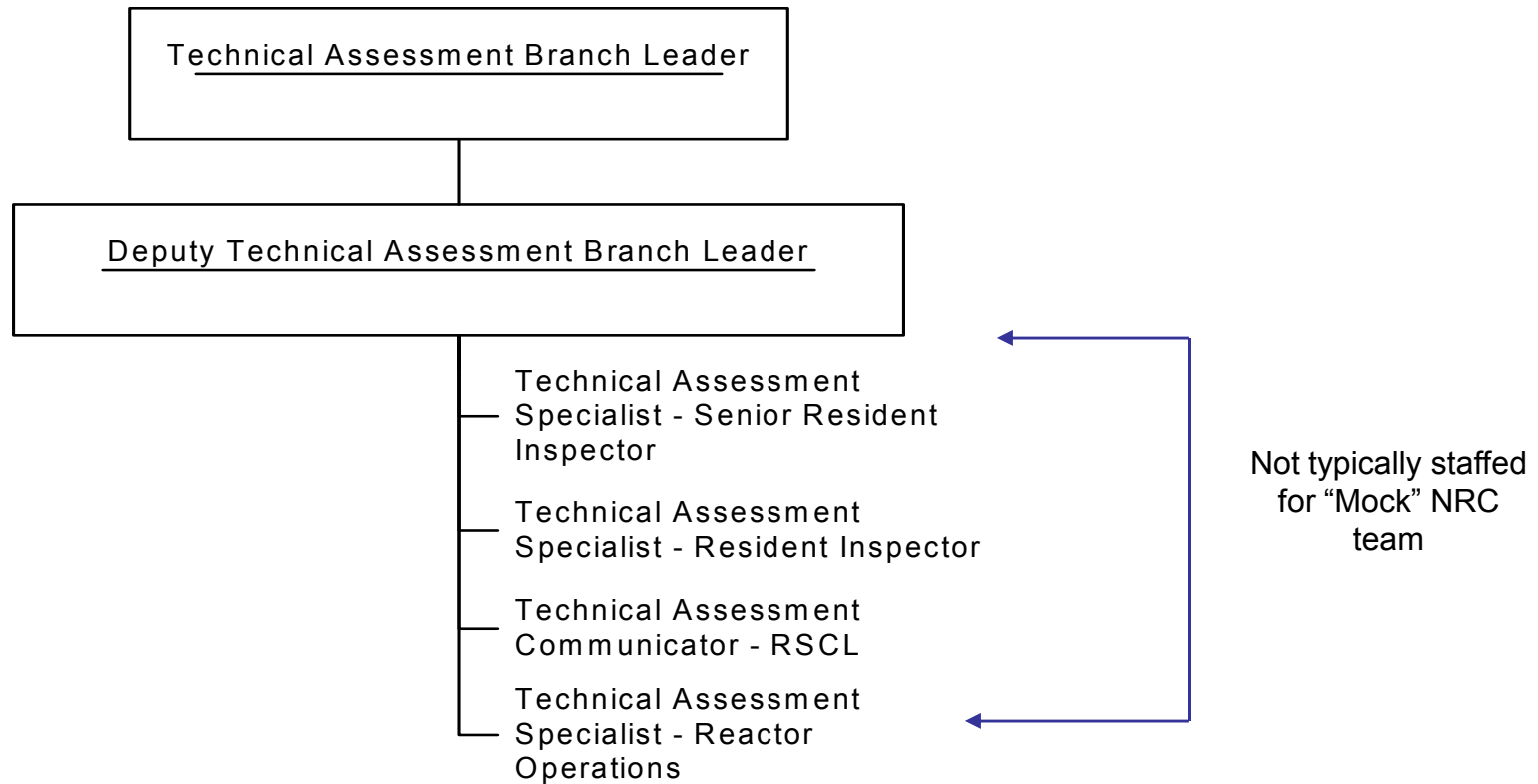
- When interfacing with State / Local representatives, be careful that you do not give the impression or imply the Federal agencies will be taking over the response.
- Offer assistance one time and wait for them to request further help. If they say they do not want our assistance, thank them and let them know we will do what we can if they need us. Do not try to force help upon them.
- Assistance that can be offered includes:
 - Technical assistance understanding the situation at the facility
 - Technical assistance with dose projections
 - Assistance requesting technical support from other Federal agencies

Note: The Liaison Branch does not actually provide the assistance; they coordinate getting it.

LIAISON INTERFACE LINKS



TECHNICAL ASSESSMENT STAFFING



TYPICAL TECHNICAL ASSESSMENT TASKS

- Verify the licensee is taking reasonable actions to mitigate / terminate the incident.
- Ensure the licensee has properly classified the incident.
- Perform a core cooling assessment.
- Perform a core damage assessment.
- Determine the most likely release pathway.
- Determine if the release pathway is monitored or filtered.
- Compare assessments with licensee and resolve differences, if necessary.

TECHNICAL ASSESSMENT BRIEFING

Top Level Assessment

Release in progress? Yes/No
Core damage underway? Yes/No
Core damage imminent? Yes/No

Current Status

The licensee has...

Use a form similar to this to summarize the NRC's independent technical assessment

Critical Safety Functions

Current 14:40 EST Projected

<input checked="" type="checkbox"/>	Criticality Control	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Core Cooling	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Heat Removal	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	RCS Integrity	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Rx Vessel Integrity	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Cmt. Press. Control	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Rad. Confinement	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Release Mitigation	<input checked="" type="checkbox"/>

What If... Failure of...

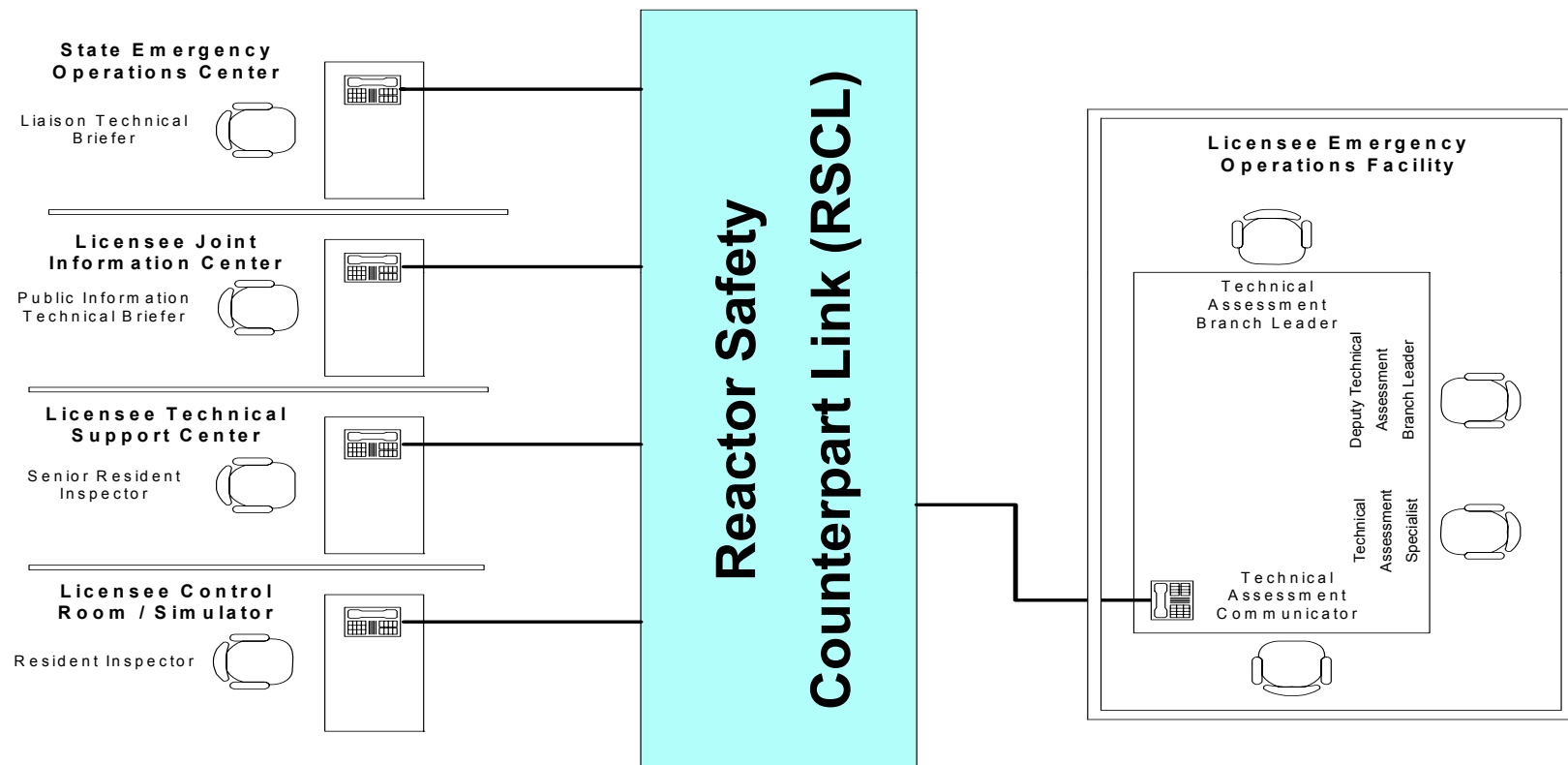
TYPICAL QUESTIONS

- Did all control rods fully insert?
- How is the core being cooled (forced flow or natural circulation)?
- What is the heat sink (condenser, atmospheric relief, suppression pool)?
- Any unexpected pressure or level transients?
- Offsite and emergency power available?
- Was there a release or is there an ongoing release?
- Any actuation of emergency core cooling systems?
- Any isolations?
- Any unexpected complications or anything unusual about the scram/trip?
- What caused the scram / trip?
- Does this event require you to enter your emergency plan?

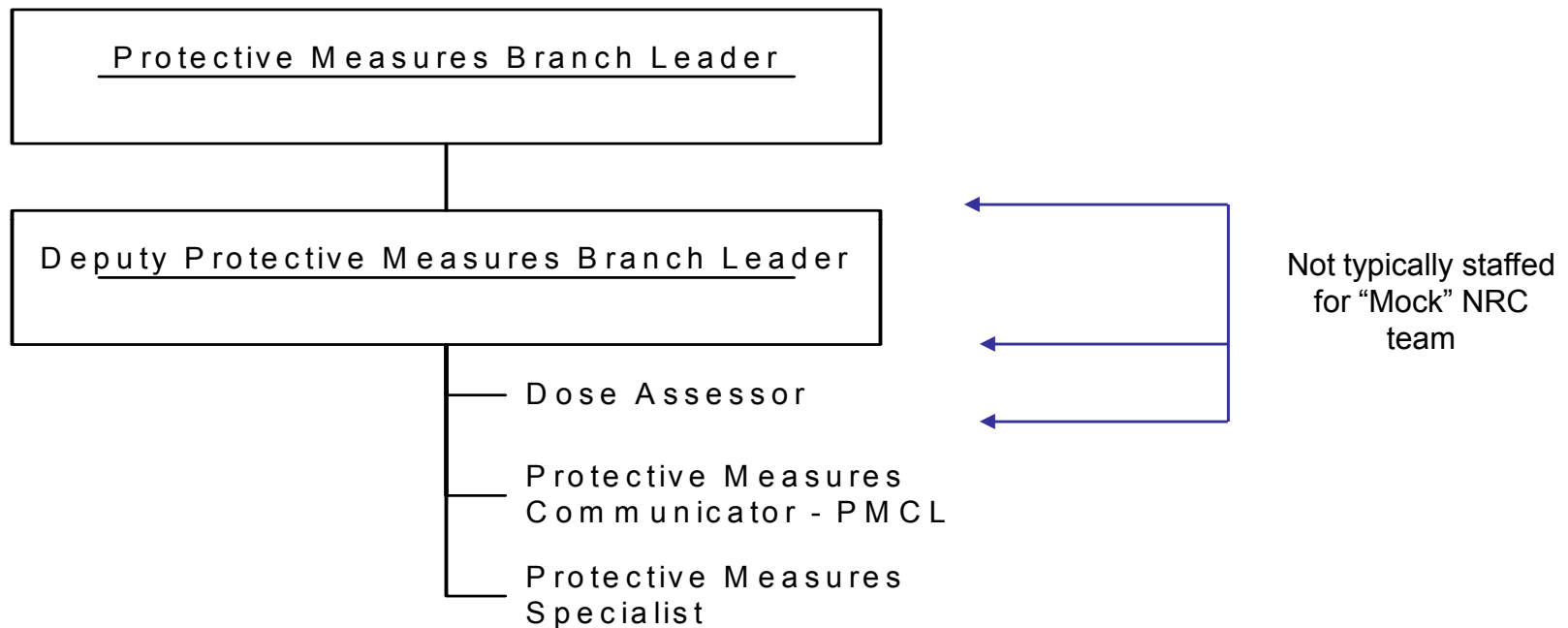
Reactor Safety Counterpart Link (RSCL)

- The Reactor Safety Counterpart Link (RSCL) is used by the Technical Assessment Branch in parallel with the Emergency Notification System with the licensee.
- It is the primary method of sharing technical assessment related information between NRC staff located on scene and in NRC response facilities.
- It serves as an information feed for the State Emergency Operations Center Liaison and Public Information Leader.

TECHNICAL ASSESSMENT INTERFACE LINKS



PROTECTIVE MEASURES BRANCH STAFFING



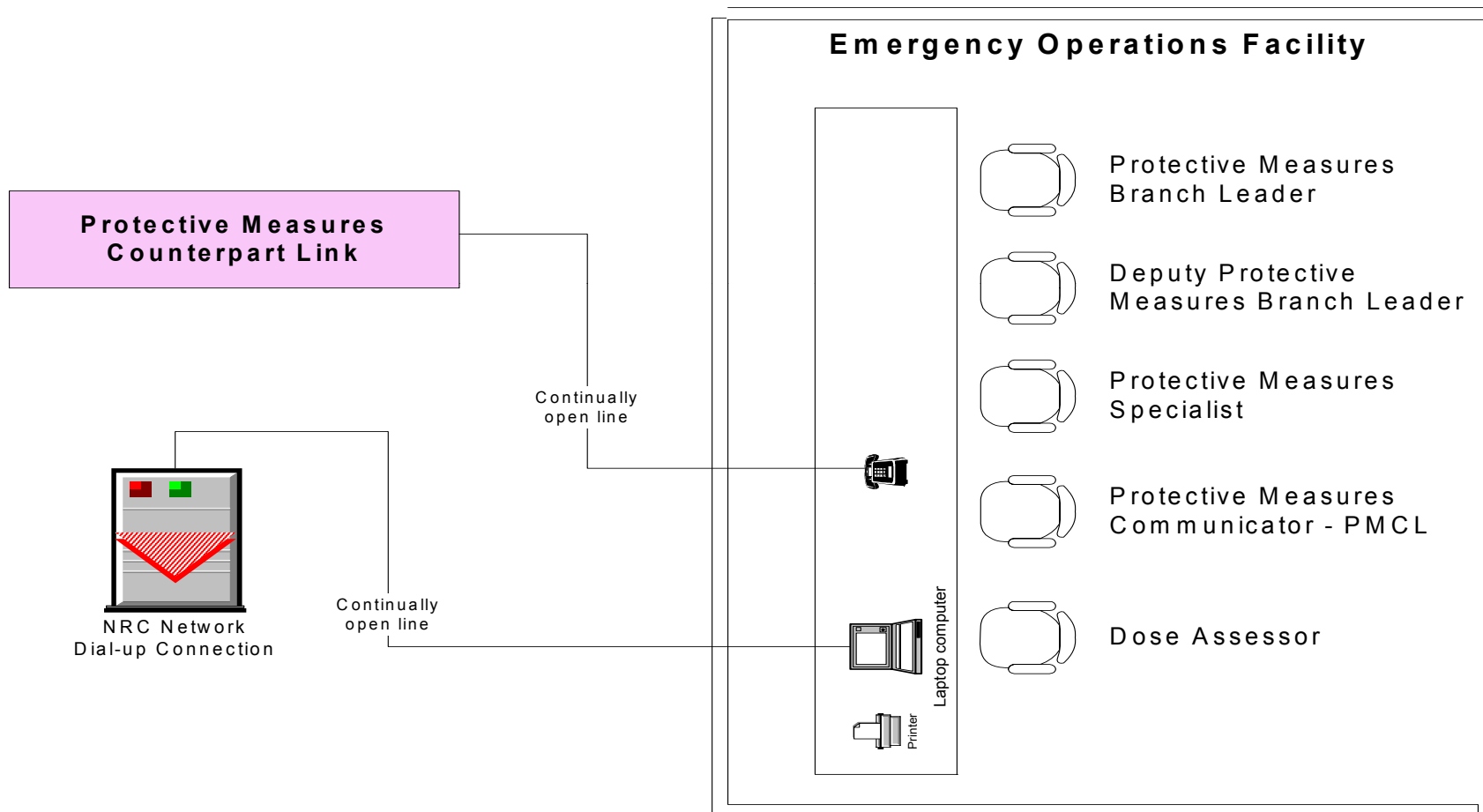
TYPICAL PROTECTIVE MEASURES

TASKS:

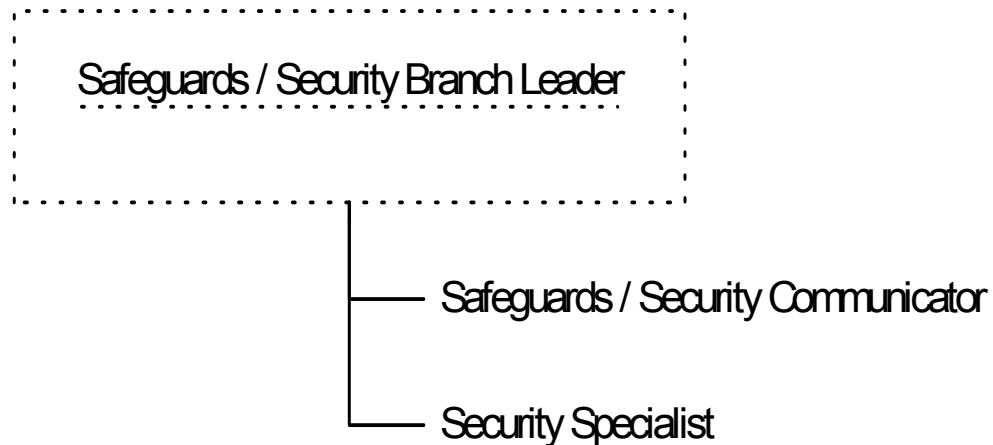
- Perform dose projections to develop Federal protective action recommendations, compare with licensee / State projections and try to resolve discrepancies.
- If there is a significant difference between NRC projections and licensee and State projections, inform the Site Team Director and Liaison Leader so they can discuss the situation with licensee and State management.
- Review protective actions for licensee personnel.
- Recommend actions to the Site Team Director to protect NRC on-scene responders.

PROTECTIVE MEASURES

INTERFACE LINKS:



SAFEGUARDS / SECURITY BRANCH



While this position may not always be staffed (non-security related incidents), the licensee should be prepared to communicate security related information to the NRC.

SAFEGUARDS / SECURITY

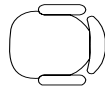
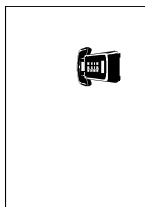
TASKS:

- Interface with on-scene law enforcement (local, State and Federal)
- Provide technical and protective measures assessment information to on-scene law enforcement
- Review impact of the incident on plant security / compensatory measures
- Review licensee Security response activities
- Recommend actions to Site Team Director to protect NRC on-scene responders.
- Protect / secure classified and sensitive information.

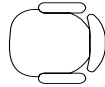
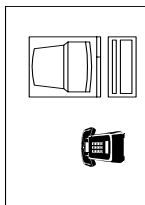


SETTING UP A CONTROL CELL

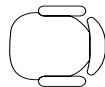
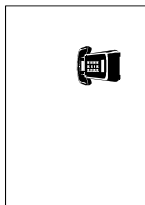
NRC TELEPHONE CELL (DUPLICATES HQ INTERFACE)



Dedicated communicator to serve as the "NRC Headquarters Operations Officer" and to maintain an open ENS line with the licensee.



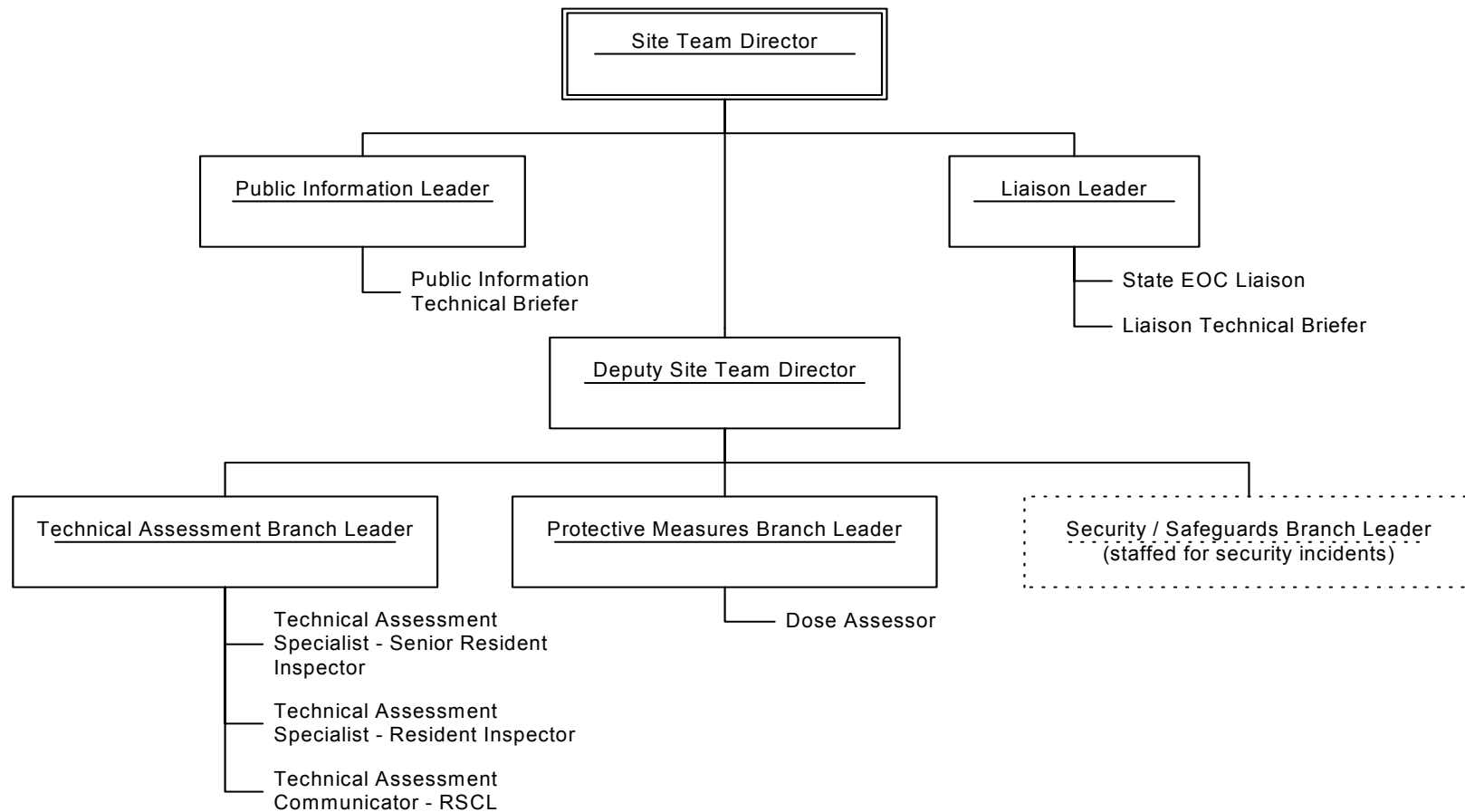
Dedicated communicator to serve as the "NRC Health Physics Network communicator" and to maintain an open HPN line with the licensee.



Communicator to provide injects from NRC Headquarters (e.g., the Chairman, a Commissioner, etc.)

These functions will normally be provided by the Region for the dress rehearsal. The licensee may need to be prepared to provide these functions for those times the Region does not provide this support.

“MOCK” NRC SITE TEAM ORGANIZATION



Special Note

- NRC responders will usually have a good “generic” understanding of how facilities operate or specific technical knowledge such as dose assessment. However, with the exception of the Resident Inspectors, most responders will not have extensive knowledge of a specific site and its procedures.
- Ask questions to clarify information from the licensee. Examples might include:
 - What does that acronym mean?
 - Where is this in relation to . . . ?
 - How do I find . . . ?
 - Who do I talk to about . . . ?

COORDINATING RESPONSE TO MULTIPLE FACILITIES

- The Senior Resident Inspector / Resident Inspector report to the “control room” when they are “informed” of the situation.
- The Senior Resident Inspector will relocate to the Technical Support Center when it is activated.
- For exercise planning, ensure that the Public Information Branch is scheduled to arrive at the licensee’s Joint Information Center around the same time the Site Team arrives at the Emergency Operations Facility.
- For exercise planning, ensure that the State Emergency Operations Center Liaison and Liaison Technical Briefer arrive at the State Emergency Operations Center around the same time the Site Team arrives at the Emergency Operations Facility.



SPECIAL MESSAGE TO NRC CONTROL CELL MEMBERS

The NRC is willing to help licensees in many different ways. At times, NRC participants may appear to be team mates with the licensee. Examples of support that may be provided:

- Obtain technical expertise to help understand the event as it occurs
- Coordinating with other Federal agencies to get enhanced / replacement communications capabilities to the site
- Coordinating with other Federal agencies to get a large diesel generator or other equipment to augment the licensee's backup power capabilities

While it can be argued that the licensee should be able to perform these functions, there may be extenuating circumstances such as a large disaster around the facility as with a major hurricane or earthquake. Therefore, it may require the resources of the Federal Government to obtain the necessary support.

A key thing to remember is that the NRC's primary role is to independently assess the licensee's actions. Therefore, the licensee should take care not to "task" the NRC to perform functions normally performed by the licensee such as core damage assessment, dose assessment, protective action recommendation development, etc.



TYPICAL SCENARIO

INITIAL NOTIFICATION

- The licensee notifies the NRC Headquarters Operations Center of an emergency.
- The Headquarters Operations Officer should start to fill out Form 361 for a “routine” report.

INITIAL ACTIVITIES

- For an Unusual Event involving minor safety significance, the Headquarters Operations Officer will typically treat this as a “routine” notification. The licensee will be asked to call back if the situation degrades or when they terminate the emergency.
- For an Alert or higher or for an Unusual Event where there are potential safety concerns, the Headquarters Operations Officer will maintain an open line with the licensee (for non-imminent threat situations).
- Simulate getting a briefing for NRC management and making a decision to staff NRC response centers.
- Obtain information to fill out Form 361. Generate a list of data needed to continually assess the incident and ask the licensee to provide the data on a 15 minute interval (the interval and data list can be revised as the incident progresses).

STAFFING THE HEALTH PHYSICS NETWORK

- For exercise purposes, ask the licensee to have someone staff the Health Physics Network:
 - when there is a potential for a release
 - when a release is occurring
 - upon dispatch of the Site Team
- The request for the licensee to staff the Health Physics Network is typically made to the Emergency Notification System Communicator.
- A second request may be made to the Resident Inspectors over the Reactor Safety Counterpart Link asking them to give the licensee the message to staff the Health Physics Network.
- Once staffed, continually discuss dose projections and request input information to perform dose projections.

DISPATCH OF THE SITE TEAM

- Notify the licensee of the decision to dispatch a Site Team over the Emergency Notification System along with an estimated time of arrival.
- Notify the Resident Inspectors of the decision to dispatch a Site Team over the Reactor Safety Counterpart Link.
- Obtain facsimile number / e-mail address to send a roster to the licensee containing the names of the people who will be on the Site Team.

ARRIVAL OF THE SITE TEAM AT THE LOCAL AIRPORT

- When the NRC Site Team arrives at a local airport, the Site Team Director will call into the NRC Headquarters Operations Center to get the current status briefing.
- The Protective Measures Branch Leader will call in and ask to be put on the Health Physics Network to get the current status on access route to the site.
- The licensee telephone cell will perform these calls and quickly brief the “Mock” NRC Site Team prior to reporting to the Emergency Operations Facility.

Arrival at the Emergency Operations Facility

- Site Team will enter the Emergency Operations Facility at the designated entry point.
- Sign in / obtain dosimetry as called for by the licensee's procedures.
- The Site Team Director should ask someone to inform the Emergency Director that the Site Team has arrived and would like to be briefed on the current status of the event.
- The Site Team Director should ask someone to show the Site Team where they are to go for the briefing.

LICENSEE BRIEFING

- The Site Team will wait no more than 10-15 minutes to be briefed. If the licensee does not respond in this time frame, the Site Team Director will lead the team into the Emergency Operations Facility and begin functional co-location.
- The briefing should not last more than 15 minutes.
- The briefing should address the following:
 - Current situation
 - Concerns / issues / priorities
 - Repair and Mitigation Actions underway
 - Protective Action Decisions being implemented
 - Administrative info (telephone use instructions, telephone directories, work locations, bathroom location, etc.)

FUNCTIONAL CO-LOCATION

- After the licensee briefing, the Site Team will go into the Emergency Operations Facility and begin to locate their work locations.
- Staff with computers will begin setting up the computers / printers and hooking up to analog telephone lines.
- Staff who will be on “continually open” lines will usually install corded headsets.
- Staff that need to be mobile while on the telephone will usually install cordless telephones if they are permitted in the licensee’s facility.

TURNOVER TO THE SITE TEAM

- Site Team Members will get a short briefing from their licensee counterparts.
- Site Team Members will get a turnover briefing from their Headquarters / Regional counterparts via telephone call.
- When the equipment has been set up and briefings complete, team members should inform the Site Team Director that they are ready to respond.
- The Site Team Director will inform the “Chairman” that the Site Team is ready for turnover.

MANAGEMENT BRIEFINGS

- The “Chairman” will typically want to be briefed by the licensee’s Emergency Director about an hour after the Alert declaration with additional briefings every 2 hours (unless something changes).
- The “Chairman” will want to be briefed by the licensee’s Emergency Director about 30 minutes after going to a Site Area Emergency and General Emergency.
- The “Chairman” will want to talk to the Site Team Director and Emergency Director soon after the Department of Homeland Security declares an Incident of National Significance.



QUESTIONS?



Contact

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