

**Commonwealth Edison**

72 West Adams Street, Chicago, Illinois

Address Reply to: Post Office Box 767
Chicago, Illinois 60690

April 19, 1983

PRINCIPAL STAFF			
RA		ENF	
D/RA		SCS	
A/RA		PAO	
DPRP		SLO	
DRMA		RC	
DRMSF			
DE			
ML			
OL		FILE	<i>la</i>

Mr. Jack Hind, Director
Division of Emergency Preparedness and Operational Support
U. S. Nuclear Regulatory Commission Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: LaSalle County Station Emergency Exercise, July 12, 1983
NRC Docket Numbers 50-373 and 50-374

The attached Objectives, Scope of Participation, Scenario Outline and Narrative Summary for the LaSalle Station Exercise are being distributed in accordance with NRC and FEMA requirements. The LaSalle Station Exercise is currently scheduled for July 12, 1983.

Questions regarding the LaSalle Exercise should be directed to Terry Blackmon (815) 942-8150 or Carol Nellis (312) 294-8154.

Sincerely,

Terry G. Blackmon

T. G. Blackmon
Lead Emergency Planner
South Team
Technical Services Nuclear

TGB/kjn
#0762D/3

Enclosures

cc: Mr. Dan Bement, Acting Chief Technological Hazards Branch
FEMA, Region V Federal Center
Battle Creek, MI 49016

Mr. E. Erie Jones, Director, Illinois ESDA
110 E. Adams Street
Springfield, IL 62706

Mr. Steve Dunas
Illinois Dept. of Nuclear Safety
1035 Outer Park Drive
Springfield, IL 62704

CECo: J. C. Golden, Technical Services Nuclear
G. P. Wagner, Technical Services Manager
Nuclear Stations Division
D. L. Farrar, Nuclear Licensing Administration

APR 20 1983

LaSalle Exercise, July 12, 1983

OBJECTIVES

PRIMARY OBJECTIVE:

Demonstrate the capability to implement the Commonwealth Edison Generating Stations Emergency Plan in cooperation with the Illinois Plan for Radiological Accidents to protect the public in the event of a major accident at the LaSalle County Station.

SUPPORTING OBJECTIVES:

1. Demonstrate the capability to classify accident conditions and make timely reports in accordance with the GSEP.
2. Demonstrate the capability to activate the TSC and EOF with directors and appropriate staff in accordance with procedures.
3. Demonstrate the capability to conduct in-plant radiation protection activities and collect and analyze effluent or other inplant samples.
4. Demonstrate the capability of environmental field teams to conduct field radiation surveys and collect and analyze air, liquid, vegetation and soil samples as needed. Demonstrate the use of Hazelton Environmental Contractors to receive and transport an environmental sample.
5. Demonstrate the capability to exercise initial control of off-site environmental activities, transfer control to appropriate state agencies and coordinate employment of CECo environmental resources in support of state controlled environmental activities to the extent required by scope of CECo participation.
6. Demonstrate the emergency forecast capability in the determination of offsite radiological consequences.
7. Demonstrate the capability to calculate off-site dose projections in coordination with governmental agencies.
8. Demonstrate the capability to provide accurate, timely information to the news media in cooperation with governmental agencies.
9. Demonstrate the capability to effectively communicate reports, information and assessments of the situation among all participating principal command and control centers.
10. Demonstrate the capability to process information and take appropriate actions in accordance with plans and procedures.
11. Demonstrate the capability to contact organizations that would normally assist in a given emergency situation, but are not fully participating in this exercise.

12. Support Illinois State and local agencies during the phases of the exercise in which CECO is not actively participating by reading messages and reacting to questions in accordance with the scenario.

✓ 13. Demonstrate the capability to provide timely and accurate on site accountability.

SCOPE OF PARTICIPATION

Commonwealth Edison will participate in the LaSalle Station exercise by activating the on-site emergency response organization and the near-site EOF as appropriate, subject to limitations that may become necessary to provide for safe efficient operation of the LaSalle Station and other CECo nuclear generating stations.

Activation of the TSC and other on-site ^{Facilities} participants will be conducted on a real time basis during the ^{morning} ~~evening~~ hours, starting somewhere between 12 AM and 6 AM. The shift on duty will receive the initial scenario information and respond accordingly.

The Nuclear Duty Person and the balance of the Recovery Group will be prepositioned close to the LaSalle Station to permit use of Recovery Group personnel from distant locations.

The Corporate Command Center will not be activated.

Commonwealth Edison will demonstrate the capability to make contact with contractors whose assistance would be required by the simulated accident situation, but will not actually incur the expense of using contractor services to simulate emergency response except as prearranged specifically for the exercise.

Commonwealth Edison will arrange to provide actual transportation and communication support in accordance with existing agreements to the extent specifically prearranged for the exercise. Commonwealth Edison will provide unforeseen actual assistance only to the extent the resources are available and do not hinder normal operation of the company.

CONTROL/CRITIQUE TECHNIQUES

The July 12, 1983 LaSalle Station exercise is an offhours event to test the integrated capability and a major portion of the basic elements existing within the CECO., Illinois, and Local governmental preparedness plans. The exercise will include mobilization of CECO., State and Local personnel and resources adequate to verify their capability to respond to a simulated emergency.

To evaluate CECO.'s response capability, a group of qualified exercise controllers has been assembled. These controllers will be responsible for the smooth functioning of the CECO. portion of the CECO. exercise.

CECO. controllers will be stationed at each CECO. operations center and will accompany the environs teams and in-plant health physics and maintenance groups. The controllers will be directed by the CECO. Chief Controller who will be responsible for coordinating CECO.'s activities with the Exercise Director. The Exercise Director will be stationed at the State Emergency Operations Center in Springfield. At the conclusion of the exercise a formal evaluation of CECO.'s activities during the exercise will be prepared. This evaluation and those prepared by the NRC and RAC will serve as the bases for implementing corrective actions as judged necessary.

Immediately following the exercise, CECO. controllers will conduct a verbal critique of the activities they observed. Participants are encouraged to comment and make recommendations during the verbal critique. This critique will be in addition to those performed by the U.S. Nuclear Regulatory Commission and the Federal Regional Assistance Committee (RAC).

The principal criterion for both the verbal critique and the written evaluation report is the degree to which the published primary and supporting objectives have been accomplished. Other observations, comments and recommendations will be included as needed to amplify the manner in which the primary and supporting objectives were accomplished.

Controllers will use the following techniques to control the exercise in accordance with the scenario:

1. Control Messages - Control messages provide information to the participants and/or cause the participants to take actions needed to keep the exercise moving smoothly. The controller will give a hard copy of the control message to the designated participant at the specified time. Simultaneously, the controller will provide the essential information verbally. The controller will follow through and clarify the message by answering questions to ensure that the participants do not read extraneous meaning into the message. Controllers will not tell participants what action they are expected to take.

2. Contingency Messages - Contingency messages will be used only if participants fail to take the major actions expected from the control messages by the time designated. Controllers will give the contingency message to the designated participant and explain in as much detail as necessary what actions the participant is expected to perform. Contingency messages are used to keep the exercise on schedule though their use may indicate inadequate plan implementation. Controllers will notify the Chief Controller at the earliest opportunity if a contingency message has been used.
3. Control Information - Controllers for Health Physics and Environs Field Teams will provide instrument readings and other information to team members verbally. Controllers will refer to their current location on the control map for the applicable time period to obtain dose rates.
4. Control Guidance - Controllers will provide verbal guidance to participants to keep the exercise oriented to the prearranged scope and scenario. Controllers will direct participants to simulate certain actions that are outside the immediate scope of the exercise at the time participants announce their intention to perform the action. Controllers will note that the participants simulated the action. Participants must request information that is not automatically provided from participants at other locations. Controllers will steer participants away from types of information that are outside the exercise scope to avoid bogging the exercise down in the quest for information that controllers do not possess and have no intention of providing.
5. Graphical or Written Information - Controllers will provide hardcopy graphs and written reports to simulate information that would be available from computer printouts or recorder strip charts. Data routinely provided by the Technical Staff regarding the previous operation of the plant will also be provided. These data will be provided either simultaneously with a Control Message or upon request as Control Information.

Controllers will use the following techniques to evaluate the GSEP, procedures and state of training:

1. General Observations/Records - Controllers will observe and record all significant activities of participants. The time of each activity will be recorded in the controller's journal. These journals will be used to evaluate the adequacy of the journals prepared by participants and assist with other evaluations for the critique.

2. Observations/Evaluations/Records of Responses to Control Messages - Controllers will be especially observant of participants' responses to control messages and control information. The scenario provides anticipated responses for each message to assist in this evaluation. Records of these evaluations will be maintained for the critique. Evaluations will be used on a real time basis to decide if a contingency message will be needed.
3. All participant journals and controller records and evaluations will be used to prepare the written critique of the exercise. Where appropriate a critique checklist will be used by the controllers to record their observations and judgements concerning the actions taken by the various CECOs. exercise participants.

Critique comments will be requested from all participants at the conclusion of the exercise.

CONTROLLERS MANUAL

ANNEX A

Commonwealth Edison

Exercise Information
&
Scenario

LASALLE EXERCISE
July 12, 1983

#0885D/4

A. Narrative Summary

The exercise is based on conditions arising from a tornado hitting the refuel floor and causing extensive damage to fuel in the fuel pool.

Initial conditions establish that U-1 reactor has just been shut down following 6 months of continuous operation at 80-100% power, and completely de-fueled for work on the core plate for installation of incore thermocouple. All fuel is in the fuel pool and fuel handlers are still working on the refuel bridge over the reactor vessel.

Mechanical maintenance has B train of SBGT out of service (OOS) to replace pre-filters, A train is operable and VR is operating in a normal line-up.

The initiating event for the exercise will be notification in the control room from the system power supply of a squall line with reported sightings of tornado approaching LSCS at 20 mph from the Southwest. This will require that an unusual event be declared and LOA-AA-02 be entered for a Tornado sighting near the plant.

LOA-AA-02 requires all overhead cranes be moved to the south end of the reactor refuel.

At this point it is expected that the Station Director will have Maintenance close up SBGT train and clear the OOS. (When B SBGT is operating, S.E./Station Director may downgrade GSEP event to Alert level, but is not necessary). Also of high priority should be getting the Refuel bridge secured and/or moved from over the fuel pool, and getting a temporary fix for the Refuel floor _____ out panels and/or getting the panels replaced.

Approximately 3 hours into the drill, maintenance is regged for moving the refuel bridge from over the fuel pool. SBGT is runnin and Refuel floor panels are replaced or temporarily covered. Fuel graopie is already removed.

While attempting to move/secure the refuel bridge, cables slip and refuel bridge falls into fuel pool causing gross fuel damage as indicated by following:

1. sharp increase in discharge rate on SBTG PRM
2. Refuel floor ARM reading sharp increase
3. Water level fluctuation in fuel pool and skimmer surge tank.
4. Report from mechanics that _____ refuel floor that water in fuel pool looked like it was boiling.

This initiates start of major release. SBTG PRM indication will continue to increase through the GSEP levels for a gaseous release to a General Emergency.

At site emergency an assembly will be held if not at the 1st site emergency due to HIGH radiation with no SBTG.

Field teams will be sent out to monitor plume path and readings taken will be provided by Field team controller.

Release will continue until all fission gases are released (over a 2-4 hr period) and both SBTG PRM and offsite readings start coming down. Recovery will commence following release of fission gases, Refuel bridge will be removed from fuel pool, and inspection of fuel damage to access method of cleaning up.

During this entire drill, fuel pool cooling will be tripped several times and restarted, and radiation levels in the Radwaste filter area will increase, giving ARM alarms, etc.

Also, this will be an after hours drill and the call out procedure in the LFP's will be used to man the TSC. it is also expected that Dresden will supply meteorological data since the Tornado destroys LaSalles Met Tower.

Also as part of the drill, contractors responsible for the met tower will re-establish a meteorological data gathering system.

Also to be noted, after the Tornado hits, there will be heavy rain for a period of 30 minutes, then wind dies down and rain stops, starts clearing. The tornado that hits LaSalle is not reported touching down anywhere else.

All notifications will be made on NARS form to Federal, State and County agencies, from data given by controllers.

LASALLE EXERCISE
JULY 12, 1983
SCENARIO OUTLINE

PHASE	MSG. NO.	TIME ISSUED	TYPE MESSAGE	ISSUED TO	OUTLINE OF CONTENTS
Initial Situation t+0 - t+05m* t=0430	1	Prior to t+0	Control	All	- Ground Rules (pre-published)
	2	t+0	Control	C.R.**	Plant Status: - Normal Operating information and prior operating history - Unit 1 defueled, B SBTG OOS - Fuel handlers working on refuel bridge - Met Data 375 ft W.S. = 15.6 m/S (35 mph) 375 ft W.D. = 205 degrees 375-33ΔT = -1.8°C/100 M = B Stability raining
	3	t+0	Phone call	So. Div Sys.Pwr Ld Dsp	- Murray & Trettel (Meteorological Consultant) Transmit Storm Warning Report
Unusual Event t+05m t+30m		t+05 (0435)	Phone Call	C.R.	- So. Div Sys. Power Load Disp. reports squall line approaching at 20mph from So. Southwest with tornado sightings - Storm report from M&T
	4	t+15 (0445)	Control Message	C.R.	- Plant Status: - Met data - no change
	3A	t+15 (0445)	Contingency	C.R.	- Tornado near LSCS - Storm Report
	5	t+20 (0450)	Control Message	C.R./ Fuel Handlers	- Refuel bridge won't move and is off the tracks over the fuel pool - Evacuation complete on refuel floor
	4A	t+25 (0455)	Contingency	C.R.	- Declare Unusual Event for LSCS - Notify Station Director & SPSO - Initiate LOA-AA-02 - NARS Form
	6	t+27 (0457)	Control Message	C.R./ Security	- Security reports tornado has been sighted and is approaching Station

*time in minutes

**C.R. = Control Room

#0875D/1

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LASALLE EXERCISE
JULY 12, 1983
SCENARIO OUTLINE

PHASE	MSG. NO.	TIME ISSUED	TYPE MESSAGE	ISSUED TO	OUTLINE OF CONTENTS
Alert t+30m- t+90m	7	t+30 (0500)	Control Message	C.R.	<ul style="list-style-type: none"> - Plant Status - Loss of Met Data - Reactor Building change in pressure information - Fuel pool exhaust radiation alarm (100mr/hr) - Group 4 isolation - SBT A starts - Refuel floor ARM alarms - Fuel pool level fluctuates
	C.I.A	t+30- t+90 (0500-0600)	Control Inform- ation	E.A./ Control Room	<ul style="list-style-type: none"> - 2 Panels missing on refuel floor - Refuel bridge fallen over pool - Bubbles coming from pool
	C.I.B	t+30- t+90 (0500-0600)	Control Inform- ation	Health Physics Teams	<ul style="list-style-type: none"> - H.P. data for Alert phase
	C.I.C	t+30- t+90 (0500-0600)	Control Inform- ation	Environs Teams	<ul style="list-style-type: none"> - Environmental Data for Alert Phase (As Read)
	C.I.D	t+30- t+90 (0500-0600)	Control Inform- ation	TSC/CR	<ul style="list-style-type: none"> - Updated Actual Met Data for Dresden 300 ft WS = 17.9 m/S (40 mph) gusts 31.3m/S (70 mph) 300 ft WD = 210 degrees 300-35 ft $\Delta T = 1.8^\circ C/100m$ = B stability - Raining
	8	t+33 (0503)	Control Message	Security	<ul style="list-style-type: none"> - Security reports Met tower down. Perimeter fence is down.
	9	t+45 (0515)	Control Message	Control Room	<ul style="list-style-type: none"> - Plant Status: - Met Data: Same as before
	7A	t+60 (0530)	Conting- ency	Control Room	<ul style="list-style-type: none"> - Declare Alert for LSCS - Notify Station Director & SPSO - Initiate Callout procedures
	10	t+60 (0530)	Control Message	Control Room	<ul style="list-style-type: none"> - Plant Status: + ARM Readings - Met Data: Same as before
	11	t+75 (0545)	Phone	So. Div Sys. Pwr Load Disp	<ul style="list-style-type: none"> - M&T issue "ALL CLEAR" weather report
	12	t+75 (0545)	Control Message	Control Room	<ul style="list-style-type: none"> - Plant Status: - Met Data: Same as before
Alert t+30m - t+90m		t+80 (0550)	Phone Call	C.R.	<ul style="list-style-type: none"> - So. Div. Sys. Power Load Disp. Reports "ALL CLEAR" weather report to LSCS
	11A	t+90 (0600)	Con- tingency	C.R.	<ul style="list-style-type: none"> - "ALL CLEAR" weather report

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LASALLE EXERCISE
JULY 12, 1983
SCENARIO OUTLINE

PHASE	MSG. NO.	TIME ISSUED	TYPE MESSAGE	ISSUED TO	OUTLINE OF CONTENTS
Site Emergency t+90m- t+240m	13	t+90 (0600)	Control	Control Room	- Plant Status: - Fuel pool exhaust rad alarm > 100 mr/hr (EAL) -A SBTG flow "0"
	14	t+90	Control	EA	- SBTG A Train Heavily damaged
	C.I.E	t+90- t+210 (0600 -0800)	Control Inform- ation	Health Physics Team	- H.P. data for Site Emergency
	C.I.F	t+90- t+210 (0600 -0800)	Control Inform- ation	Environs Team Team	- Environmental Data for Site Emergency (ODCS)
	C.I.G	t+90- t+210 (0600- 0800)	Control Inform- ation	TSC/CR EOF	- Request Forecast Data LSCS WS = 5.6 m/S (12.5 mph) WD = 202° Δ T = -1.6° C/100m C Stability -(Clear)
	C.I.H	t+90- t+210 (0600- 0800)	Control Inform- ation	TSC/CR EOF	- Dresden Actual Met Data WS = 5.6 m/S (12.5 mph) WD = 205° Δ T = -1.6° C/100m C Stability (Clear)
	15	t+105 (0615)	Control Message	Control Room	- Plant Status: - Met data: SAB
	13A	t+105 (0615)	Con- tingency	CR	- Get Maintenance out of B SBTG Clear OOS, Start B SBTG
	13B	t+120 (0630)	Con- tingency	C.R.	- Declare Site emergency for LSCS - Sound Assembly - Initiate call-out for Site Emergency - Notify SPSO, Station Director - Transmit NARS
	16	t+120 (0630)	CM	CR	- Plant Status: SBTG readings PRM Readings Minor release starts
	13C	t+120 (0630)	Con- tingency	TSC	- M&T Forecast Met data: SAB
	16A	t+123 (0633)	Con- tingency	CR/TSC	- Don't Downgrade situation - B SBTG Now working

*MM- Mechanical Maintenance
 **- Refuel Floor

LASALLE EXERCISE
 JULY 12, 1983
SCENARIO OUTLINE

PHASE	MSG. NO.	TIME ISSUED	TYPE MESSAGE	ISSUED TO	OUTLINE OF CONTENTS
Site Emergency t+90m- t+210m	17	t+125 (0635)	Control	EA	- Calls CR Get MM* to work on Bridge & RFF** panels - Assess damage
	18	t+135 (0645)	Control	TSC/CR	- Plant Status - Met Data: SAB
	17A	t+140 (0650)	Con-tingency	CR/TSC	- Send MM to work on bridge and refuel panels
	19	t+150 (0700)	Control Message	Control Room	- Plant Status - Met Data: SAB
	20	t+165 (0715)	Control Message	CR/TSC	- Plant Status - Met Data: SAB
	21	t+180 (0730)	Control Message	CR/TSC	- Plant Status - Met Data: SAB
	22	t+195 (0745)	Control Message	CR/TSC	- Plant Status: - Met Data: SAB - Rx Bldg Press -.25 " water
	23	t+200 (0750)	Control Message	CR/TSC	- MM ready to move bridge away from fuel pool - RFF panels temp. repaired
	24	t+205 (0755)	Control Message	MM	- Calls CR Bridge falling into pool
	25	t+205 (0755)	Control Message	CR/TSC	- Fuel pool water level pegs high
	26	t+210 (0800)	Control Message	CR/TSC	- Plant Status - Met Data: SAB - RFF evacuated - Site Emergency Release Rate (EALS)
	27	t+225 (0815)	Control Message	CR/TSC EOF	- Plant Status - Met Data: SAB
	26A	t+230 (0820)	Con-tingency	CR/TSC EOF	- New NARS Form for Gaseous Release > S.E. EALS
	26B	t+230 (0820)	Con-tingency	CR/TSC EOF	- Evacuate Rx Bldg
General Emergency 240 - 300	28	t+240 (0830)	Control Message	CR/TSC EOF	- Release Rates > EALS for General Emergency - Major Release starts
	29	t+255 (0845)	Control Message	CR/TSC EOF	- Plant Status - Met Data: SAB
	28A	t+270 (0900)	Con-tingency	CR/EOF TSC	- Declare General Emergency - Transmit NARS
	30	T+270 (0900)	Control	EOF	- Plant Status: - Met Data: SAB

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 LASALLE EXERCISE
 JULY 12, 1983
SCENARIO OUTLINE

PHASE	MSG. NO.	TIME ISSUED	TYPE MESSAGE	ISSUED TO	OUTLINE OF CONTENTS
General Emergency	31	t+285 (0915)	Control Message	CR/ TSC	- Plant Status: - Met Data: SAB
240-300 (cont'd)	C.I.I	240- 300 (0830- 0930)	C.I.	Environs Teams	- Environ. ODCS
	C.I.J	240- 300 (0830- 0930)	C.I.	H.P. Teams	- H.P. Data
Site Emergency	32	t+300 (0930)	Control Message	CR/TSC EOF	- Plant Status - Release Rate < EALS for General Emergency - Met Data: SAB
t+ 300 - t+345	33	t+315 (0945)	Control Message	CR/TSC EOF	- Plant Status - Met Data: SAB
Alert	34	t+330 (1000)	Control	CR/TSC EOF	- Plant Status - Met Data: SAB
t+345 -	35	t+345 (1015)	Control	CR/TSC EOF	- EALS < S.E.
t+375	36	t+360 (1030)	Control	CR/TSC EOF	- Plant Status - Met Data: SAB
	37	t+375 (1045)	Control	CR/TSC EOF	- Plant Status - Met Data: SAB
Release Stops	38	t+390 (1100)	Control Message	CR/TSC EOF	- Plant Status - Met Data: SAB
Recovery					