# UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

In the Matter of	) Docket		
COMMONWEALTH EDISON COMPANY		and	50-304
(Zion Station, Unit Nos. 1 and 2)			

REVISED ORDER CONFIRMING LICENSEE COMMITMENTS
ON POST-TMI RELATED ISSUES

I.

Commonwealth Edison Company (the licensee) is the holder of Facility

Operating License Nos. DPR-39 and DPR-48 which authorizes the operation of
the Zion Station, Unit Nos. 1 and 2 (the facilities) at power levels
not in excess of 3250 megawatts thermal. The facilities are pressurized
reactors (PWRs) located at the licensee's site in Zion, Illinois.

II.

Following the accident at Three Mile Island Unit No. 2 (TMI-2) on March 28, 1979, the Nuclear Regulatory Commission (NRC) staff developed a number of proposed requirements to be implemented on operating reactors and on plants under construction. These requirements include Operational Safety, Siting and Design, and Emergency Preparedness and are intended to provide substantial

additional protection in the operation of nuclear facilities based on the experience from the accident at TMI-2 and the official studies and investigations of the accident. The staff's proposed requirements and schedule for implementation are set forth in NUREG-0737. "Clarification of TMI Action Plan Requirements." Among these requirements are a number of items, consisting of hardware modifications, administrative procedure implementation and specific information to be submitted by the licensee, scheduled to be completed on or after July 1, 1981. On March 17, 1982, a letter (Generic Letter 82-05) was sent to all licensees of operating power reactors for those items that were scheduled to be implemented from July 1, 1981 through March 1, 1982. Subsequently, on May 5, 1982, a letter (Generic Letter 82-10) was also sent to all licensees of operating power reactors for those items that were scheduled for implementation after March 1, 1982. These letters are hereby incorporated by reference. In these letters each licensee was requested to furnish within 30 days pursuant to 10 CFR 50.54(f) the following information for items which the staff had proposed for completion on or after July 1, 1981:

(1) For applicable items that have been completed, confirmation of completion and the date of completion, (2) for items that have not been completed, a specific schedule for implementation, which the licensee committed to meet, and (3) justification for delay, demonstration of need for the proposed schedule, and a description of the interim compensatory measures being taken.

III.

Commonwealth Edison Company responded to Generic Letter 82-05 by letters dated April 15, 1982, November 29, 1982 and January 14, 1983; the licensee responded to Generic Letter 82-10 by letter dated July 24, 1982. On March 14, 1983, the Commission issued an Order confirming the licensee's commitments to implement certain post-TMI related items set forth in NUREG 0737. By letter of March 30, 1983, further clarified by letter of April 8, 1983, the Commonwealth Edison Company informed the staff of technical difficulties and delays in hardware delivery and requested revision of completion dates for three items, II.B.2, II.B.3, II.F.1(2). The staff's evaluation of the licensee's proposed delays for these items is provided herein:

#### II.B.2 Plant Shielding

As part of the plant shielding task, the radiation monitor which controls the control room air intake is being replaced with a new monitor that is part of the SPING computerized monitoring system. The new monitor has been installed, calibrated, and tested. However, a new operator for the control room air intake damper is needed to make the system fully operational. The manufacturer's delivery date for this item has been extended beyond licensee's original estimate.

In the interim, the damper has been placed in the accident mode, which isolates the outside air intake and routes the air flow through charcoal filters. Operation in this mode will provide the necessary protection until the new damper operator can be installed. In addition, in the interim, there is an existing

monitor that is serving the air control function until the SPING problem can be fixed. This interim operation using the existing monitor is acceptable. All other immediate requirements for this task item have been completed.

#### II.B.3 Post Accident Sampling

The containment air sample radiation monitor is also being upgraded with the SPING monitoring system discussed above. The installation for Unit 1 is complete. For Unit 2 completion is expected in April 1983. There is an existing radiation monitor providing containment air sampling measurements and its operation during the interim period is acceptable. All other immediate requirements for this task have been completed.

#### II.F.1.2 Accident Monitoring Instrumentation

The existing vent stack radiation monitors are being replaced with new monitors that are part of the SPING monitoring system. The electronics-related problems previously identified have recently been resolved, and final calibration is in progress at this time on both units. In addition, the Unit 2 sample vacuum pump has failed and must be replaced. The actions are expected to be completed by the end of April 1983. In the interim, the existing monitors will continue to provide the necessary monitoring functions. The interim operation of the existing vent stack monitor is acceptable. All other immediate requirements for this task have been completed.

We find, based on the above evaluation, that: (1) the licensee has taken corrective actions regarding the delays and has made a responsible effort to implement the NUREG-0737 requirements noted; (2) there is good cause for the several delays (unexpected design complexity, interface problems, and equipment delays); and (3) as noted above, interim compensatory measures have been provided.

IV.

Accordingly, pursuant to Sections 103, 161i, and 161o of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Parts 2 and 50, IT IS HEREBY ORDERED THAT THE LICENSEE SHALL:

Implement and maintain items II.B.2, II.B.3, and II.F.1(2) described in the Attachments to this Order in the manner described in the licensee's submittals\_noted in Section III herein no later than the dates in the Attachments.

· V.

The licensee may request a hearing on this Order within 20 days of the date of publication of this Order in the <u>Federal Register</u>. A request for a hearing shall be addressed to the Director, Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission, Washington, D.C. 20555. A copy shall also be sent to the Executive Legal Director at the same address.

If a hearing is requested by the licensee, the Commission will issue an Order designating the time and place of any such hearing.

If a hearing is held concerning this Order, the issue to be considered at the hearing shall be whether the licensee should comply with the requirements set forth in Section IV of this Order. This Order is effective upon expiration of the time within which a hearing may be requested.

FOR THE NUCLEAR REGULATORY COMMISSION

Darrell G. Eisenhut, Director

Division of Licensing

Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland this 28th day of April 1983

#### Attachments:

 Licensee's Commitments of Applicable NUREG-0737 Requirements from Generic Letter 82-05

 Licensee's Commitments on Applicable NUREG-0737 Requirements from Generic Letter 82-10 PLANT NAME: Zion Unit 1 and 2

### FROM GENERIC LETTER 82-05

TITLE	NUREG-0737 SCHEDULE	REQUIREMENT	LICENSEE'S COMPLETION SCHEDULE (OR STATUS)*
Simulator Exams	10/1/81	Include simulator exams in licensing examinations.	Complete
Plant Shielding	1/1/82 .	Modify facility to provide access to vital areas under accident conditions.	June 1983
Post-accident sampling	1/1/82	Install upgrade post-accident sampling capability.	Unit 1 Complete Unit 2 April 1983
Training for Miti- gating Core Damage	10/1/81	Complete training program.	Complete
Aux FW Indication & Flow Indicator	7/1/81	Modify instrumentation to level of safety grade.	Complete
Containment Isolation Dependability .	7/1/81	<ul> <li>Part 5 - lower containment pressure satpoint to level compatible with normal operation.</li> </ul>	Complete
Containment Isolation Dependability	7/1/81	Part 7 - isolate purge and vent valves on radiation signal.	Complete
	Plant Shielding  Post-accident sampling  Training for Mitigating Core Damage  Aux FW Indication & Flow Indicator  Containment Isolation Dependability  Containment Isolation	TITLE SCHEDULE  Simulator Exams 10/1/81  Plant Shielding 1/1/82  Post-accident 3/1/82  Training for Mitigating Core Damage 10/1/81  Aux FW Indication 8 7/1/81  Containment Isolation 7/1/81  Containment Isolation 7/1/81	TITLE SCHEDULE REQUIREMENT  Simulator Exams 10/1/81 Include simulator exams in licensing examinations.  Plant Shielding 1/1/82 Modify facility to provide access to vital areas under accident conditions.  Post-accident sampling Install upgrade post-accident sampling capability.  Training for Mitigating Core Damage 10/1/81 Complete training program.  Aux FW Indication & 7/1/81 Modify instrumentation to level of safety grade.  Containment Isolation 7/1/81 Part 5 - lower containment pressure satpoint to level compatible with normal operation.  Containment Isolation 7/1/81 Part 7 - isolate purge and vent valves on radiation

<sup>\*</sup>Where complete date refers to a refueling outage (the estimated date when the outage begins), the item will be completed prior to the restart of the facility.

PLANT NAME: Zion Units 1 and 2

## LICENSEE COMMITMENTS ON APPLICABLE NUREG-0737 ITEMS FROM GENERIC LETTER 82-05

TITLE	NUREG-0737 SCHEDULE	REQUIREMENT	LICENSEE'S COMPLETION SCHEDULE (OR STATUS)*
II.F.1 Accident Monitoring	1/1/82	(1) Install noble gas effluent monitors.	July 1983
	1/1/82	(2) Provide capability for effluent monitoring of iodine.	April 1983
	1/1/82	(3) Install in-containment radiation-level monitor.	Complete
	1/1/82	(4) Provide continuous indication of containment pressure.	Complete
	1/1/82	(5) Provide continuous indication of containment water level.	Complete
	1/1/82	(6) Provide continuous indication of hydrogen concentration in containment.	Complete
		TITLE SCHEDULE  Accident Monitoring 1/1/82  1/1/82  1/1/82	Accident Monitoring 1/1/82 (1) Install noble gas effluent monitors.  1/1/82 (2) Provide capability for effluent monitoring of iodine.  1/1/82 (3) Install in-containment radiation-level monitor.  1/1/82 (4) Provide continuous indication of containment pressure.  1/1/82 (5) Provide continuous indication of containment water level.

<sup>\*</sup>Where completion date refers to a refueling outage (the estimated date when the outage begins), the item will be completed prior to the restart of the facility.

	LICENSEE'S COMMITMENT	LICENSEE'S COMMITMENTS ON APPLICABLE NUREG-0737 ITEMS FROM GENERIC LETTER 82-10 Attachment 2				
ITEM	TITLE	NUREG-0737 SCHEDULE	REQUIREMENT	LICENSEE'S COMPLETION SCHEDULE (OR STATUS) *		
1.4.1.3.1	Limit Overtime	10/1/82 per Gen. Ltr. 82-12 dtd. 6/15/82	Revise administrative procedures to limit overtime in accordance w/NRC Policy Statement issued by Gen. Ltr. No. 82-12, dtd. June 15, 1982.	Complete		
I.A.1.3.2	**!linimum Shift Crew	To be superseded by Proposed Rule.	To be addressed in the Final Rule on Licensed Operator Staffing at Muclear Power Units.	To be addressed when Final Rule is issued.		
1.0.1	**Revise Emergency Procedures	Superseded by SECY 82-111	Reference SECY 82-111, Requirements for Emergency Response Capability.	To be determined.		
11.0.1.2	RV and SV Test Programs	7/1/82	Submit plant specific reports on relief and safety valve program.	Complete		
11.0.1.3	Block Valve Test Program	7/1/82	Submit report of results of test program.	Complete		
11.K.3.30 & 31	**SBLOCA Analysis	l yr. after staff approval of model	Sûbmit plant specific analyses.	To be determined following staff approval of model.		
III.A.1.2	**Staffing Levels for Emergency Situations	Superseded by SECY 82-111	Reference SECY 82-111, Requirements for Emergency Response Capability	To be determined.		
III.A.1.2	**Upgrade Emergency Support Facilities			nn hn		
III.A.2.2	**Meteorological Data					
III.D.3.4	Control Room Habitability	To be determined by licensee	Modify facility as identified by licensee study	During refueling to occur before January 1984.		

<sup>\*</sup>Where completion date refers to a refueling outage (the estimated date when the outage begins), the item will be completed prior to the restart of the facility.

\*\*Not Part of Confirmatory Order