70-16-105

METROPOLITAN EDISON COMPANY Subsidiary of General Public Utilities Corporation

Subject AUDIT 76-20, EMERGENCY PLAN Location Reading

Date

J. J. Colita To

J. G. Herbein

Persons Conducting Audit:

a. R. J. Stevens

b. R. E. Ne'dig

II. Personnel Contacted

R. W. Dubiel

R. D. McCann

F. H. Grice

N. E. Derks

N. D. Brown

A. Tsaggaris

R. B. Taylor

J. F. Stacey

J.J. Chwastyk

B. . Riitle

III. Applicable Reference Documents

TMI Emergency Plans and Procedures

IV. Summary

An audit was performed on December 16, 20 and 21, 1976, for the purpose of assessing the adequacy of, and compliance with the TMI Emergency Plans. The areas audited include the following:

- A. Radiation Emergency Plan
- B. State/Met-Ed Radiation Emergency Interface Plan
- C. Emergency Procedures
- D. Radiation Emergency Checklist for Actions Required by Personnel
- E. Fire Emergency Plan
- F. Flood Emergency Plan
- G. Earthquake Emergency Plan
- H. Plant Security Bomb Threat Emergency Plan
- I. Tornado Emergency Plan
- J. Toxic Release

J. J. Colitz J. G. Herbein Page 2 GQM 0890

Of the above areas, the Fire, Flood, Earthquake, and Tornado Emergency Plans appeared to have no deficiencies.

The following deficiencies were noted:

- A. F iation Emergency Plan Since its publication as Appendix 12a to the TMI-l how, there have been no changes made to update the Radiation Emergency Plan. Because of the detail to which the plan is written (e.g. actual phone numbers listed, position titles, equipment nomenclatures, etc.), the evolution to the present day way of doing business has resulted in procedures, that although basically the same in intent, are not the same in detail. From a functional standpoint, it is the opinion of the audit team that the procedures should contain the detail, and the plan should be rewritten in general terms such that updating procedures when necessary does not change compliance with the plan.
- B. State/Met-Ed Radiation Emergency Interface Plan the problem here was that phone numbers included in the Plan were not all up to date.
- C. Emergency Procedures As mentioned before, the procedures were up to date and consistent in intent, but not detail, with the Plan.
- D. Radiation Emergency Checklist for Actions Required by Personnel It could not be found who is responsible for filling out the Checklist or if the Checklist is filled out at all. The Checklist is not specifically addressed in either the Plan or Procedures.
- E. Plant Security Bomb Threat Emergency Plan The emergency call list to security Procedure 1005.9 was not up to date. The telephone operators use a separate emergency call list which is updated monthly.

General Comments:

The TMI-1 FSAR is currently being revised by Licensing, who will be informed of the audit team's concerns. Namely, that the Radiation Emergency Plan should be rewritten so as to eliminate details covered by the implementing procedures. This will allow updating the procedures without requiring the Plan (FSAR) to be rewritten and/or updated. Licensing will be informed by copy of this audit report.

Deficiencies D and E will be resolved as NCR's, therefore there are no audit findings associated with this audit.

J. J. Colitz , J. G. Herbein Page 3 GQM 0890

V. Persons Present at Post Audit Reviews

R. W. Dubiel

R. D. McCann

F. H. Grice

J. F. Stacey

Submitted: Ronald J. Stevens Audit Team Leader

Approved:

Manager - Generation Quality Assurance

RJS:rk

File: 61.0002.0018.0004

ec: W. E. Potts

I.	RAD	IATION EMER EP PLAN Sat. Unsat.
	Α.	Is a Radiation Protection Conitoring Team established and documented consisting of:
		1. Radiation Protection Technician #1
		2. Radiation Protection Technician #27 kg
		3. Chemical Analyst #1
		4. Nuclear Plant Auxiliary Operator #2
	B.	Is an Emergency Repair Party established
		and documented consisting of:
		1. Electrical Maintenance Foreman 2. Mechanical Maintenance Foreman 3. Instrumentation Foreman
		2. Mechanical Maintenance Foreman
		5. Instanction Foreman
		4. Utility Construction and Maintenance Man
		Chief #1
		5. Repairman Chief
		6. Instrumentation Technician
	C.	Emergency Control Station Communications
		equipment:
	1	Dall'
e	1	1. Consists of two separate telephone extensions,
2		short wave transmitter-receiver, portable walkie-talkie transmitters, and in plant page
Plant.		system.
		System.
		2. Are these systems periodically tested for
		operability and performance?
		3. Are these tests documented? annually the the
		ked a truey built televier (out I le for
	D.	Radiatio Emergency Kits weekly from Lebourn
		1. Location and number
		Dente Duizzing my Tunes Derly Dune
		a. Reactor Building - Two THREE Per/ 7.P. 1778 b. Auxiliary Building - Two
	1	
		d. Control Room - One e. Spent Fuel Area - One
		f. Service Building - One
		T. Delfile Bullung vine

Unsat. Sat, 2. Contents Word But. a. Protective clothing b. Poly bags c. Masking tape d. Poly bottles e. Rags E. Emergency Monitoring Kits 1. Location a. Emergency Control Station b. Secondary Holding Area 2. Contents 4. GM survey meter with sample holder for probe and scaler b. Charcoal respirator and spare cannisters c. Pre-labeled containers for environmental samples d. List of duties for each kit e. Portable air sampler and filter papers f. Check point maps and data sheets F. Equipment Located in Control Room 1. Name and phone number of supervisor who has the emergency call list duty 2. Blueprint and building layout drawings 3. High range dosimeters and charger 4. Charcoal filter respirators 5. Emergency call list board - is it up to date 6. High range survey meter 7. Flashlight 8. Telephone 9. Short wave transmitter, Lebanon frequency 10. Protective clothing 11. Walkie-talkies G. Equipment Located in Emergency Control Station Call List, Radiation Emergency Plan, Federal Radiation Council Protective Action 1. Site and environs maps and overlays 2. Emergency information handbook (Emergency Radiation Council Protective Action Guides, ~ 602 039 / Precalculated Data) / 3. High range dosimeters and charger /4. Respirators and spare charcoal cannisters 5. High range dose rate meters POOR ORIGINAL

		Sat.	Unsat.
11/1	6. Flashlights 7. Film badges 8. Protective clothing 9. Fortable operated air samplers 10. Emergency monitoring kits 11. Emergency log book 12. Telephone		
ł.	Equipment Located at the Secondary Holding Area		
	1. Emergency Monitoring Kit 2. GM survey meter with side window probe 3. Protective clothing 4. Respirator and spare charcoal cannisters to High range dosimeter 6. Containers to obtain medical samples	ly't	_
	Radiation Emergency Routes to the Emergency Control Station are marked with red arrows with the initials RER printed on the sign		
	Evacuation Routes used to evacuate the station are marked with blue arrows with the initials ER printed on the sign	/	
	Are all the responsiblities and duties understood by those personnel listed in Section 3.2.1 in the Radiation Emergency Plan?	1	
	Are the personnel familiar with the specific assignments outlined on the Personnel Assignment Chart and the Alternat Assignment Chart, Appendices A & B respectively?		
	Are the in plant notification channels periodically tested?	1.	- Word Preti-
	Is Appendix C accurate and up to date?	/	Mark
	Do the responsible personnel know whom to notify?		
	Are the Cognizant Personnel aware of the "Responsive Action" necessary to complete the required Protective Measures as defined in Section 6.0?		
	Radiation Emergency Plan and procedures are reviewed and updated at least once every two years.	Special	Bo "

		5me 1976	Sat.	Unsat.
	0.	Drills are held annually and documented.		
		Periodic retraining is held in order to maintain personnel proficiencies. Documented?		_
II.	STA	TE/MET-ED RADIATION EMERGENCY INTERFACE PLAN		
	Α.	Are the Sequence of Events and Notifications consistent with the provisions of the Radiation Emergency Plan?	WHI	-
III.	EME	RGENCY PROCEDURES		
	Α.	Are the procedures reviewed and updated at least once every two years?	<u></u>	
	Е.	Are the procedures consistent with the Radiation Emergency Plan?	w	Nord.
IV.		IATION EMERGENCY CHECKLIST FOR ACTIONS REQUIRED PERSONNEL		
	Α.	Are the responsible personnel aware of the location of the checklists?	Marine Street,	annut - to
٧.	FIR	E EMERGENCY PLAN	(the ment of the
	Α.	Are the following systems periodically inspected:		mor in
		 Water extinguishing systems Dry chemical systems Halogenated extinguishing agent systems 		
1		Are the inspections documented?		
	В.	Are personnel aware of their assigned daties and responsibilities for Fire Protection?		
	C.	Are reports written on every fire?	~	
2	D.	Are alarm response sheets prepared for each alarm and conveniently located? Claum Park Found.		Material State Sta
	Ε.	Fire Protection System Component Locations		
		1. Can the equipment be easily found and recognized?	_/	
		POOR ORIGINAL	601	041

		Sat.	Unsat.
	2. Are the locations conspicuous?		
	F. Are plant personnel familiar with the operation of the three types of manual extinguishers? Actual (1)	/	
	G. Are plant personnel aware of their duties in the event of fires involving a radiological hazard? Locumental oliving annual Mod's liney of	11-	
VI.	FLOOD EMERGENCY PLAN		
	A. Are personnel periodically re-familiarized with the Flood Emergency Pl-1 and procedures?	~	
VII.	EARTHQUAKE EMERGENCY PLAN		
	A. Are personnel periodically re-familiarized with the Earthquake Emergency Plan?		
VIII.	PLANT SECURITY - BOMB THREAT EMERGENCY PLAN		
of later	A. Are the switchboard operator and personnel who normally receive direct outside calls during the back shifts, provided with the appropriate written instructions for telephoned bomb threat?		fr fun
That were	B. Is Enclosure I up to date and accurate?		way long!
IX.	TORNADO EMERGENCY PLAN		not up to Late of
	A. Are personnel aware of the structures designed to withstand tornado loadings? (i.e. Control, Relay, and Battery Rooms in Control Building; Auxiliary Building; Fuel Handling and Diesel Generator Buildings; Intake Screen and Pump House; Reactor Building)		accounts.
х.	TOXIC RELEASE		
Renamel	A. Are the personnel who work in the immediate stora areas of (1) liquid chlorine, (2) sodium hypochlo solution, (3) concentrated ammonium hydroxide, (4) 50 weight percent sodium hydroxide, and (5) concentrated sulfuric acid, aware of the location protection equipment and emergency repair kits?	prite	

		Sat.	Unsac.
В.	Are personnel aware of the three basic initial actions to be taken following an accidental release?	/	
	 Remove personnel from potential areas of exposure Terminate the release as rapidly as possible Stabilize the situation so that a safe and effective cleanup can be planned 		
c.	In case of a leak, are the personnel aware of the obligation of notifying the Shift Foreman who will dispatch an Auxiliary Operator to the scene?	/	

TMI-1 Emergency Plans and Procedures

٠	RAD	IATION EMERGENCY PLAN	Sat.	Unsat.
	Α.	Is a Radiation Protection Monitoring Team established and documented consisting of:	340.	unsau.
		 Radiation Protection Technician #1 Radiation Protection Technician #2 Chemical Analyst #1 		
		4. Nuclear Plant Auxiliary Operator #2		
	В.	Is an Emergenc; Repair Party established and documented consisting of:		
		1. Electrical Maintenance Foreman		
		2. Mechanical Maintenance Foreman		
		3. Instrumentation Foreman		
		4. Utility Construction and Main'enance Man Chief #1		
		5. Repairman Chief	/	
		6. Instrumentation Technician		14,150
	C.	Emergency Control Station Communications		
		equipment:		
		 Consists of two separate telephone extensions, short wave transmitter-receiver, portable 		
		> walkie-talkie transmitters, and in plant page		
	y.00	system.		
		2. Are these systems periodically tested for		
		operability and performance?	<u> </u>	
		2007 N. S.		
		3. Are these tests documented?	<u> </u>	
	D.	Radiation Emergency Kits		
		1. Location and number		
		a. Reactor Building - Two		
		b. Auxiliary Building - Two		
		c. Turbine Building - Two		
		d. Control Room - One		
		e. Spent Fuel Area - One		
		f. Service Building - One		

			Sat.	Uns	at.	
	2.	Contents				
		a. Protective clothing b. Poly bags				
		c. Masking tape				
		d. Poly bottles				
		e. Rags		-		
ε.	Eme	rgency Monitoring Kits				
	1.	Location				
		a. Emergency Control Station				
		b. Secondary Holding Area		-		
	2	Contant.				
	C.	Contents				
		a. GM survey meter with sample holder				
		for probe and scaler				
		b. Charcoal respirate and spare cannisters				
		c. Pre-labeled containers for environmental				
		samples				
		d. List of duties for each kit				
		e. Portable air sampler and filter papers . Check point maps and data sheets				
		. Check point maps and data sheets				
	Equ	ipment Located in Control Room				
1	1.	Name and phone number of supervisor who			-	100
		has the emergency call list duty				
		Blueprint and building layout drawings				
		High range dosimaters and charger				
×		Charcoal filter respirators				
		Emergency call list board - is it up to date				
		High range survey meter Flashlight				
		Telephone				
		Short wave transmitter, Lebanon frequency				
		Protective clothing				
		Walkie-talkies	1			
	Equ	ipment Located in Emergency Control Station				
	1.	Site and environs maps and overlays				
	2.	Emergency information handbook (Emergency				
		Call List, Radiation Emergency Plan, Federal	12			
		Radiation Council Protective Action Guides, Precalculated Data)				
	2	High range dosimeters and charger		602	CAS	
	3.	Respirators and spare charcoal cannisters		601	UTJ	
	5	Wigh range dose rate meters		OON		

		Sat.	Unsat.
7	6. Flashlights 7. Film badges 8. Protective clothing 9. Portable operated air samplers 10. Emergency monitoring kits 11. Emergency log book 12. Telephone	4	
н.	Equipment Located at the Secondary Holding Area		
	1. Emergency Monitoring Kit 2. GM survey meter with side window probe 3. Protective clothing 4. Respirator and spare charcoal cannisters 5. High range dosimeter 6. Containers to obtain medical samples		
I.	Radiation Emergency Routes to the Emergency Control Station are marked with red arrows with the initials RER printed on the sign		
J.	Evacuation Routes used to evacuate the station are marked with blue arrows with the initials ER printed on the sign	1	
к.	Are all the responsiblities and duties understood by those personnel listed in Section 3.2.1 in the Radiation Emergency Plan?		
	Are the personnel familiar with the specific assignments outlined on the Personnel Assignment Chart and the Alternate Assignment Chart, Appendices A & B respectively?		-
L.	Are the in plant notification channels periodically tested?	<u> </u>	-
	Is Appendix C accurate and up to date?	الأراز المنتفس	
	Do the responsible personnel know whom to notify?		
М.	Are the Cognizant Personnel aware of the "Responsive Action" necessary to complete the required Protective Measures as defined in Section 6.0?		
N.	Radiation Emergency Plan and procedures are reviewed and updated at least once every two years.		
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			Sat.	Unsat.
		2. Are the locations conspicuous?		
	F.	Are plant personnel familiar with the operation of the three types of manual extinguishers?		
	G.	Are plant personnel aware of their duties in the event of fires involving a radiological hazard?		-
VI.	FLC	OD EMERGENCY PLAN		
	Α.	Are personnel periodically re-familiarized with the Flood Emergency Plan and procedures?	4	10 10 10 10 10 10 10 10 10 10 10 10 10 1
VII.	EAR	THQUAKE EMERGENCY PLAN		
	Α.	Are personnel periodically re-familiarized with the Earthquake Emergency Plan?		
/III.	PLA	NT SECURITY - BOMB THREAT EMERGENCY PLAN		
	Α.	Are the switchboard operator and personnel who normally receive direct outside calls during the back shifts, provided with the appropriate written instructions for telephoned bomb threat?		
	В.	Is Enclosure I up to date and accurate?		
IX,	TOR	NADO EMERGENCY PLAN		
	Α.	Are personnel aware of the structures designed to withstand tornado loadings? (i.e. Control, Relay, and Battery Rooms in Control Building; Auxiliary Building; Fuel Handling and Diesel Generator Buildings; Intake Screen and Pump House; Reactor Building)		
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	Α.	Are the personnel who work in the immediate storag areas of (1) liquid chlorine, (2) sodium hypochlor solution, (3) concentrated ammonium hydroxide, (4) 50 veight percent sodium hydroxide, and (5) concentrated sulfuric acid aware of the location o protection equipment and emergency repair kits?	ite	

. . .

		Sat.	Unsat.
В.	Are personnel aware of the three basic initial actions to be taken following an accidental release?		
	1. Remove personnel from potential areas of exposure		
	 Terminate the release as rapidly as possible Stabilize the situation so that a safe and effective cleanup can be planned 		
C.	In case of a leak, are the personnel aware of the obligation of notifying the Shift Foreman who		

METROPOLITAN EDISON COMPANY Subsidiary of General Public Utilities Corporation

Subject AUDIT 76-20, EMERGENCY PLAN

Location Reading

To J. J. COLITZ

Date December 13, 1976

GQM 3610

Audit 76-20 will be performed during the week of December 12, 1976 by Ralph E. Neidig and myself. The purpose of this audit is to determine the adequacy of and compliance with TMI Emergency Plans.

R. J. Stevens Ext. 152

RJS:dr

cc: W. W. Cotter

J. G. Herbein

E. V. Kellogg

L. L. Lawyer

R. E. Neidig

File * 02.0002.0018.0004 Audit Folder 76-20

METROPOLITAN EDISON COMPANY Subsidiary of General Public Utilities Corporation

Subject AUDIT 76-20 EMERGENCY PLAN

Location Reading

Date Oct. 11, 1976

GQM 3003

Audit 76-20 has been rescheduled for the week of October 31, 1976. Previously scheduled for the week of September 5, 1976, the audit was postponed due to higher priority auditor commitments.

B. M. MCCUTCHEON EXT. 113

BMM:RJS:daf

cc: E. V. Kellogg

File: 02.0002.0018.0004 Audit Folder 76-20

Veek of	AUDIT NUMBER AND PURPOSE/SCOPE	PERSONNEL (* TEAM LEADER)	REFERENCE DOCUMENTS
8/1, 8/8	76-18 Procurement Document Control Purpose: To determine the adequacy of and compliance with the Procurement Document Control Procedures. Scope: Generation Division	RGK*, EFG	OQA Plan GP 1023 Audit 74-17 GP 1027. GP 4005 (Title in 1/4) GP 0013 DOTH) GP 1011 GP 1016 GP 1019
8/15	76-19 3rd Step Grievance Book Purpose: To determine the compliance with 3rd Step Grievances. Scope: Gen. Div.	WKB*	3rd Step Grievance Book
8/25, 9/5	76-20 Emergency Plan Purpose: To determine the adequacy of and compliance with the emergency plan. Scope: TMI-1	RJS*, REN	FSAR Appendix 12-A TMI-1 Emergency Plan
8/8, 8/15	76-21 Special Processes (Control of Weld Wire) Purpose: To determine the adequacy of and compliance with the control of Welding Wire Procedures. Scope: TMI-1	JVP*, JJP	Audit 75-29 GP 1017 GP 1019 AP 1018 MP 1412
8/22, 8/29	76-22 Special Processes (Control of Weld Histories) Purpose: To determine the adequacy of and compliance with the Control of Weld History Procedures.	JVP*, JJP	00A Plan 1 & 2 Audit 75-29 GP 0026

CPF 4016.002

NN

Submitted:

Approved: Cuttle on Mile

QUALITY	ASSURANCE PROGRAM AUDIT PLAN	FOR THE MONTH OF	August, 1976
Veek of	AUDIT NUMBER AND PURPOSE/SCOPE	PERSONNEL (* TEAM LEADER)	REFFRENCE DOCUMENTS
8/15, 6/29	Purpose: To determine the adequacy of the B&W QA Dept's pursuit of quality problems within the area of design calculations (e.g. ECCS calculations, rod bow peralties, etc.) Scope: B&W	(unscheduled**) EVK*, RMK, LLL	B&W Letter, May 12, 1976 To J. G. Herbein from R. A. Govers "TMI-1 Surveillance aborement" Verbal Communications Form, July 19, 1976 (63.1911.0000) LLL and G. R. Bond - GPUSC, Parsippany
			B&W Topical Report BAW-10096
8/15, 8/22	76-24 OQA Plan (Training) Purpose: To determine the adequacy of and compliance wit Generation Training Procedure.		GP0007 Audit 75-31
	Scope: Generation Division		
		**Not scheduled on	

the six month schedule.

GPF 4016.002 4-27-76 Rev. 1 Submitted: CV Kellegg

BM M Cutcher 7/26/16