

NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C.

INCIDENT MESSAGE FORM

TO: Commissioners
FROM: Lee V. Gossick, EMT

Attached is a preliminary chronology of NRC actions in connection with TMI that has been prepared in connection with the April 10 hearing.

Copies have been provided OCA, OPE and EDO offices involved.

cc: Commissioners (10) - 2 each
OPE (1)
OCA (1)
L. V. Gossick (1)
E. C. Case (2)
J. G. Davis (2)
SP (1)
MPA (2)

7905140110

DATE: 4/09/79 TIME: 1015

Contact: Steve Conner, MPA

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ENCLOSURE 2

APR 9 1979

NRC REACTION TO THREE MILE ISLAND ACCIDENT
CHRONOLOGY OF EVENTS (PRELIMINARY)

Attached is a chronology of the communications and actions regarding the notification to NRC of the TMI accident, notifications made by NRC, actions taken and various related communications.

The source for the entries are as shown, and, except for the entries whose source is shown as OC Tape (telephone conversations recorded in the NRC Operations Center in Bethesda), must be treated as preliminary in nature and subject to later confirmation or clarification. It must also be noted that not all calls to and from the NRC OC were recorded due to saturation of the communications system requiring use of telephone lines not recorded by the twenty channel recorder in the Operations Center.

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<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
<u>Wednesday, March 28</u>		
<u>AM</u>		
4:00	None	Incident sequence begins.
6:50	Operations Center (OC) tape	Licensee declares site emergency
7:02	SP Followup w/PA	Licensee notifies PEMA (Pennsylvania Emergency Management Agency) of site emergency.
7:10 - 7:45	Region I	Licensee attempts to contact Region I. Duty officer and Dep. Director en route to office when beeper sounds.
7:24	OC tape	Licensee declares general emergency.
7:45	Reg. I	Upon opening switchboard, Region I receives message from licensee
7:50	Reg. I	Region I contacts TMI control room; maintains open line.
7:55	Reg. I	Region I classifies event as a Level 1 severity incident in accordance with Region I incident response plan.
8:00	Reg. I	Region I Incident Response Center activated; John Davis, Hqs., notified by Boyce Grier and also by Public Affairs (Fouchard notified by Region I Public Affairs).
8:05	Various	John Davis orders Hqs Operations Center activated. Region I State Liaison attempts to contact PA Bureau of Rad. Health.
8:20	Reg. I	Region I contacts independent measurement van (at Millstone site) and orders it dispatched to TMI site.

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
8:23	OC tape	Phone call from Weiss and Moseley to Grier; John Davis calls Gossick, who was in conversation with Fouchard.
8:25	Incoming Tel. Log	Gossick calls Davis
8:30	Reg. I	PA State Police informed that NRC emergency vehicle would be en route.
8:31	OC Tape	Moseley notifies Stello & Eisenhut; Stello says he will send radiological experts to OC
8:32	OC Tape	John Davis calls L.V. Gossick, decision made to convene EMT
8:34	OC Tape	John Davis calls Denton's office; speaks to Case.
8:36	OC Tape	Davis calls Hendrie's office; speaks to Bill Dorie.
8:40 (approx)		Gossick & Case arrive at Operations Center
8:40	OC Tape	Mike Wilbur calls Boyce Grier, obtains technical information.
8:45	Reg. I	Five inspectors (including health physicists) with radiation monitoring equipment leave for site.
8:46	OC Tape	Davis calls Dorie, asks for Comm. Gilinsky in Chairman's absence; Gilinsky not in yet.
8:48	OC Tape	Dudley Thompson notifies Tom Carter, NMSS. No NMSS action required.
8:49	OC Tape	Ward notifies J. Davidson, NMSS, to make IAT notification.
8:50	Reg. I Log	Licensee calls Reg. I with current status report.

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<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
8:50	Reg. I	State Liaison contacts PA Bureau of Rad Health
8:52	OC Tape	Davis notifies Comm. Kennedy (First Commissioner contacted) Davis reports that he, Gossick, Case & Fouchard are manning EMT at O.C. Kennedy says he will notify Commissioner Gilinsky.
8:56	OC Tape	Gossick attempts to reach Gilinsky through Bill Dorie and through Gilinsky's office. Gossick talks to John Austen and requests that Dorie reach the Chairman.
8:57	OC Tape	Davis notifies Commission Ahearne
8:59	OC Tape	Bernie Weiss calls DOE Emergency Operations Center
9:00	OC Tape	Bill Ward informs Randy Pine (CA). Randy Pine indicates that she will inform local Congressmen (Heinz & Schweiker) and Rep. ___.
9:00	Reg. I	Second vehicle leaves Region for site (investigator plus inspector); Region I contacts RAP who has already been notified; two teams organized and standing by.
9:00	Bob Ryan	Ryan notified by SP Region I personnel. Arrives Hqs. OC 9:35am
9:02	OC Tape	Weiss notifies EPA (Floyd Galpin)
9:08	SP notes	Joe Fouchard calls Carl Abraham, Reg I Public Affairs

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<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
9:10	OC Tape	Gossick calls Congressional Affairs Office. Randy Pine informs Gossick that CA had received several inquiries from local Congressmen.
9:10 to 9:30	OCA	OCA places call to majority and minority staffs of House of Subcommittee on Energy and Environment, House Subcommittee on Energy and Power and Senate Subcommittee on Nuclear Regulation as well as Senators Heinz and Schweiker and Representatives Walker and Ertel to advise of declaration of site emergency at Three Mile Island
9:06	OC Tape	Bill Ward informs Communications Branch
9:10	OC Tape	Grier calls Moseley to explain technical aspects of incident.
9:11	Incoming Log	Gilinsky calls Gossick and Davis
9:16	OC Tape	Fouchard notifies DOE Public Affairs Office (Bob Dulin).

AFTER 9:15 AM

Other NRC personnel began arriving at Headquarters Operations Center (OC Tapes not yet scanned for times after 9:16 am)

9:15	OC Notifications	White House Situation Room Log contacted
9:27	Incoming Log	Defense Civil Preparedness Agency (DCPA) Calls Joe Hegner
10:05	PN79-67	Reg. I response team arrives at site
10:05	Reg. I	Reg I contacts EPA Hqs. (also attempts to contact EPA:III)

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<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
10:05 to 10:10	Reg. I	Discussion w/RAP re ARMS aircraft survey. ARMS people put on standby
10:15	Reg. I	Onsite team informs PA Rad. Health that they are available for questioning.
10:16	Incoming Log	Conference call: All Commissioners and Davis
10:20	SP Log	Telephone to PA State Rad Health Dept. (Gerusky not available). Call returned at 10:45 (1st liaison established by Hqs) subsequent calls every hour or two, starting about 5:25 pm to discuss status of sampling and monitoring.
10:30 to 11:30	OCA	OCA calls principal oversight committees (including appropriations subcommittees) and Pennsylvania representatives from vicinity of site to advise of release of radioactive materials.
10:30	Reg. I	Reg. I contacts Delaware
10:40	Reg. I	Reg I contacts PA Governor's action center
10:45	Reg. I	Reg I contacts NY State Energy Office
10:30	PR#79-64	First Press Release based on Preliminary Notification
10:40	SP Log	Press Conference (from where?) patched through to PA Rad Health Dept.
10:55	SP Log	Telephone call to PA Civil Defense (second call to Operations Officer at 11:30 am).

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
10:58	Incoming Log	White House Duty Officer to Weiss
11:00	Reg I	Second Team arrives at site and in control room
11:35	Reg I	FPA Region III contacted
11:45	Reg I	NJ Dept of Energy contacted
11:55	Reg I	State of MD, Power Plant Siting council contacted
<u>PM</u>		
12:04	Reg. I	EPA Region III contacted
12:10	Reg I	DOE (Valley Forge Office) contacted
12:30	OCA	OCA calls principal oversight committees and PA representatives regarding latest information (In response to request from Henry Myers for technical information arranged for briefing by Mr. Stello)
1:00	Reg I	Third vehicle departs for site
1:00	Reg I	Reg I contacts MD Health Dept.
1:01	Incoming Log	Stello calls Henry Myers
1:12	SP Log	SP calls VA Civil Defense
1:30	DOE Logs	DOE advance party establishes command post at Capitol City Airport
2:15	DOE Logs	ARMS helicopter arrives at site and begins tracking.
2:30	DOE Logs	BNL RAP arrives Capitol City Airport; sampling begins
2:45	Reg I	State Maison contacts Governor's office Connecticut

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<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
3:00	SP Log	Proposed NRC Press Release cleared with PA Rad Health Dept
3:45	PN 79-67	First formal preliminary notification report distributed by NRC
4:00	OCA	Telephone briefing for Senate Subcommittee on Nuclear Regulation and Senator Heinz
5:00	PR 79-65	Second press release issued
5:15	Reg I	NRC mobile lab arrives at site
6:00	Reg I	Fourth Reg I vehicle leaves for site
7:55	SP Log	Call to PA Rad Health Dept (ARMS data shows count is up, status of BNL monitoring activities).
6:15	SP Log	PA Rad Health Dept acknowledges receipt of ARMS data and says they are keeping Governor informed.
8:17	Reg. I Log	Reg I notified of decision to send NRR team to site; arrival expected next AM.
8:30	Reg I	Fourth vehicle arrives on site
8:30-9:45	Reg I	NRC, State, RAP Team brief Lt. Governor Scranton
9:00	Region I Log	Reg I notified that Salem providing equipment
9:00	SP Log	SP verifies (how?) that FAA has not been notified.
10:00 - 11:00	Reg. I	Reg I participates in Lt. Governor's press conference

Thursday, March 29

AM

11:30 (PM) to 12:30 (AM)	Reg I	Team briefs Governor Thornburgh
12:15	PR #79-66	Press Release
1:00	SP Log	SP notifies Defense Civil Preparedness Agency and reads press release.
2:00	SP Log	SP telephones PA Emergency Management Agency, reads press release
2:10	SP Log	SP tries to telephone Health Center for Disease Control (Atlanta) (PA radiological Health says they will try again in morning).
8:30	SP Log	SP calls H. Calley, EPA, to read press release and suggests he call Gerusky and offer assistance
9:00	Reg I	Two additional vehicles (6 people) dispatched to site
9:30	SP Log	Food and Drug Administration calls and offers to have Baltimore Field Office provide assistance in looking at food pathways
9:30		Commission briefed by Gossick, Eisenhut and Jordan at "H" Street
10:25	PN-79-67A	Issued
11:00	SP Log	SP tries to contact NY Bureau of Radiological Health (call completed at 12:17 pm)
11:05	SP Log	SP calls NJ Dept. of Health.
11:30	OCA	Chairman Hendrie and NRC staff brief members of Subcommittee on Energy and Environment, other Members of Congress, and Congressional staff on status of incident.

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<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
11:45	SP Log	SP calls Delaware Rad-Health Dept.
12:00 (Approx)		NRR team (Vollmer +7) arrive on site; Strasma (Region III Public Affairs) on site
<u>PM</u>		
12:05	SP Log	SP returns call to Gov. Ray's (Washington) assistant.
12:10	SP Log	SP calls W.VA Rad Health contact
12:15	SP Log	SP calls Va. Radiological Health (call finally completed at 1:15).
12:00 - 1:00	Reg I	Vehicles 6 and 7 on site (total IE personnel: 17)
2:15	Reg I	Congressional group (Hart, Udall, Heinz, et al) arrive observation center; receive briefing.
2:40	SP Log	SP telephones Fish and Wildlife Service.
3:00	PN-79-67E	Licensee pulls thermoluminescent dosimeters from 17 fixed positions located within a 15 mile radius of site. Dosimeters had been in place for three months and had been exposed for about 32 hours after incident. Only two dosimeters showed exposures above normal levels.
3:01	SP Log	SP briefs (by phone) Md. Radiological Health on status of samples.
3:20	Reg I	State liaison contact with Vermont

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
3:15 - 5:30	Reg I	NRC representatives are called to State Capital to brief Governor and Lt. Governor prior to Governor's 5:00 p.m. press Conference.
3:35	SP Log	In response to inquiry from Minnesota Rad. Health, SP gives status briefing.
5:55	Reg I Log	The Executive Management Team directs the licensee to stop dumping all water. RI notifies HQ that stopping the dumping will cause backing of water into the Turbine Building. (Late entry - the licensee has been dumping water to the river -- the water is within TS limits WRT contamination.)
6:00	Log???	PA Rad Health says NRC can make decision on rad. water dump without checking further with them.
6:10	Reg I Log	Licensee notifies NRC that he is stopping the discharge
5:30	Reg I Log	Briefings provided by Met. Edison to Senator Schweiker, Congressmen Gooding (York), Mike McCormack; Waller (Lancaster), Weidler (L.I.,NY)
6:00	PN-67B	NRC requests Met. Edison to terminate release of slightly contaminated industrial waste. Permission to resume release granted at 12:15 am and coordinated with State. State press release issued.
4:50 - 7:00	Reg. I	Multiple attempts to reach EPA:III concerning industrial waste dumps; finally contacted at 7:00 p.m.

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
6:35	SP Log	PA Rad Health calls back and asks NRC to hold river dump because of Governor's concern. SP provides update on ARMS data.
7:05	SP Log	Offer from DOE Emergency Assistance.
8:30	Reg I	Call to Governor's Aide to inform of core damage
8:00 -8:30	SP Log	Updated status reports to MD, WVA and US Bureau of Rad. Health
10:05	SP Log	PA Rad Health says "go" if NRC wants to have water dumped.
10:12	Reg I Log	Industrial Waste Discharge verified to be off.
<u>Friday March 30</u>		
AM 12:05	Reg I Log	EMT asks IE/site to relay to Met. Ed that NRC says OK to release industrial waste. Notify NRC when release commences.
2:06	Reg I Log	Industrial Waste Tank overflowing onto ground
5:35	Reg I Log	Fire in Unit One Aux. Building Basement - (picked up from intercom). Fire in ventilation system.
8:00	SP Log	Status report to EPA
8:20	SP Log	Status report to FDA, Bureau of Radiological Health
8:30	SP Log	Status report to Md. Rad Health
8:50	SP Log	Call from FPA requesting status

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
9:00	Reg I	Control room personnel (Unit 1) hear announcement that evacuation in a 10 mile radius around plant has been recommended by NRC.
9:05	Reg. 1	Onsite inspector calls Region to verify that above was true. Were told recommendation was not official.
9:25	Reg I Log	State notified of release; evacuation rumored; site does not plan to call for evacuation.
9:15 - 10:10	SP Log	SP calls PA Civil Defense re potential evacuation
9:50	PN 79-678	Issued
10:00	Reg I Log	Some confusion exists because State evidently has recommended evacuation of Middletown (Doc. Collins). Plant/NRC has not recommended evacuation.
10:25	Reg I Log	Communication Lost with Unit 2 Control room
10:30 - 10:45	Reg I Log	State has advised residents within 10 miles to go inside and shut windows. NRC position remains: no evacuation/unnecessary to take any special precautions.
10:47	Cmsr. Tel. Log	Conference call between Gossick and Commissioners: decision to send Denton to site.
11:00	Reg. I	Unit 1 Control Room becomes aware that an evacuation <u>was</u> suggested by Governor.
11:40	Cmsr. Tel. Log	Hendrie and Governor discuss evacuation.

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
11:45	Reg I Log	Release at 11:09 for about 15 secs.
12:03	Reg I Log	Chairman of NRC recommends that Governor of PA evacuate 5 mi. radius.
12:07	Reg I Log	EPA, Region III advised of evacuation recommendation.
12:30	Reg I Log	The NRC evacuation recommendation is changed or is clarified as follows: pregnant women and preschool children in the 5 mi. radius should be evacuated. This recommendation to Gov. PA - not public. Dr. Langford of EPA is notified of this change.
1:00	SP Log	Another conversation with FDAA re Governor's recommendation for President to call National Security Council meeting at 1:30.
1:15 - 1:30	SP Log	Calls to MD, Delaware, NY, NJ VA, W.VA Rad Health regarding Governor's recommendation.
1:25	Cmsr. Tel. Log	Hendrie conference at White House followed by 1:30 p.m. NSC meeting.
1:30	Reg I	Another vehicle (2 HPs) departs for site.
2:00	Mossburg Gossick Notes	Denton +12 arrive by helicopter at site;
2:20	Mossburg Gossick Notes	NRR Operations Center established at nearby residence; notifications to President Carter and Governor Thornburgh.
2:30	Reg I	Director and Branch Chief plus 2 HPs dispatched by helicopter.

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
(About 3:30	Unverified	Wayne Kerr (OSP) +5 arrive at site to assist IE Health Physics.
By this time, 83 NRC personnel are on site and in vicinity (51 IE, 4 SP, 3 PA, 25 NRR).		
6:30	Press Release No. 79-67	Press release "no imminent danger of core melt; technical experts (Denton et al) on site"
8:45	Reg I Log	(Madden) acting as Administrative Officer reports the following: <ul style="list-style-type: none">- Trailer, manned by NRR (Denton) and the White House Communications Group is now behind the Observation Center and wired for use.- Additional Trailer by 2145 will be wired with 6 telephones.- Boyce Grier is downtown in Harrisburg at a Press Conference w/Stello, Denton, Governor Thornburgh.- Air National Guard Unit at Harrisburg Int. Airport available for assistance.

Saturday, March 31

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
<u>AM</u> 1:25	SP Log	Coordinating meeting held at Capital City Airport (EPA, DOE, PA Dept. of Environmental Resources, FDA, NRC).
3:50	SP Log	Telephone call from Bettis, Radiological Assistance Team at Command Post at Capital City Airport; analytical equipment in airport hangar.
6:00	Reg I Log	Oak Ridge man believes he can use the Loose Parts Monitoring to tell the size of the bubble in the vessel.

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
5:25	SP Log	Call from PA Civil Defense; status update.
About 9:00		Public Affairs Center activated at site; limited operation until April 1.
About 8:30	SP Log	Trailer moves just outside plant gate; NRR operations center in full force.
9:17	SP Log	Call from HEW asking what their role would be if evacuation necessary; NRC says PA Civil Defense has lead; status update.
9:25	SP Log	Call from CEQ; status report
9:20	SP Log	Call from NY Rad Health Bureau; status report.
10:00	SP Log	Call from Defense Civil Preparedness Agency; status report.
<u>PM</u>		
12:00	SD Log	Conversations with FDA-Bureau of 12:30 Radiological Health re supplies of potassium iodine.
2:00	SP Log	PA Rad Health Dept. agrees to refer all calls relating to health matters to NRC.
3:25	Cmsr. Tel. Log	Commission meets in Bethesda at Operations Center.
4:25	Cmsr. Tel. Log	Hendrie and Governor confer via telephone on status.
5:00	SP Log	NRC informed that Governor, W. Va. had activated State Radiological Assistance Team.

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
<u>Sunday April 1</u>		
10:45	PN-67G	NRC representative (Stello?) at facility informed that sabotage attempt would be made during the night. FBI, PA State Police and licensee notified.
1:30	SP Log	SP calls DOE Command Center (they do not know where EPA people are); also calls PA Rad. Health; EPA lab is next door but no one is there.
8:13	SP Log	SP calls PA Rad Health (DOE will collect all data and transmit results to NRC). Meeting scheduled at 8:30 to set up coordination.
9:36	SP Log	Contact established by Lubenau/Vaden at PA Rad. Health offices.
11:00	Reg I Log	NRC Personnel on site (65 I&E; 27 NRR; 5 others).
	PN-67H	NRC establishes 37 TLD stations at distances from 1 to 12 miles from plant.
	PN-67I	All utilities with an operating B&W reactor are sent an NRC Bulletin to: (1) provide information on TMI-2 incident (2) require a prompt review of their plant conditions, (3) take action to prevent such an incident. NRC inspectors are being sent to each licensed B&W reactor to provide increased inspection coverage.
2:18 - 2:27	Reg I Log	President Carter is on site in Unit 2 Control Room.
8:40	Gossick Notes	NRC calls DOE/EOG to request cleanup of AUX Building... General Public Utilities requested help.

Monday April 2

AM

<u>Date/Time</u>	<u>Source</u>	<u>Activity</u>
3:35	Reg I Log	Hq requests licensee to send sample of containment air (2330 sample) to Bettis.
5:50	Reg I Log	Phone link drops out/HQ will try to re-establish conference call.
6:25	Reg I Log	Phone link re-established
PM Midnight	Gossick notes	Denton briefs Governor of PA.