

To be served

AS WRITTEN STATEMENT

Statement before the Atomic Safety & Licensing Board

Submitted by Mary Hartnett, Mechanicsburg, PA

GIVEN orally  
4/29/81

Referring to the Pennsylvania Department of Health Report on the TMI area issued 3/20/81 by Dr. George Tokuhata

Table 2: fetal deaths

It should be pointed out that only fetal deaths occurring after the first 16 weeks are included, according to Dr. Tokuhata's staff.

Comparing the first quarter of 1978 to the first quarter of 1979, we find:

1. for the state of PA, deaths per 1000 deliveries dropped from 26.3 to 23.9
2. for the 10 mile radius including Harrisburg, deaths per 1000 deliveries rose significantly from 15.9 to 25.1
3. for the 10 mile radius excluding Harrisburg, deaths per 1000 deliveries rose from 14.8 to 17.0

Table 3: fetal deaths (excluding abortions)

Comparing the first quarter of 1978 to the first quarter of 1979, we find:

1. for the state of PA, deaths per 1000 deliveries rose slightly from 13.0 to 13.5
2. for the 10 mile radius including Harrisburg, deaths per 1000 deliveries rose significantly from 12.8 to 23.1
3. for the 10 mile radius excluding Harrisburg, deaths per 1000 deliveries rose from 11.9 to 17.0

Table 4: neonatal deaths

Comparing the first quarter of 1978 to the first quarter of 1979, we find:

1. for the state of PA, deaths per 1000 live births dropped from 9.9 to 9.3
2. for the 10 mile radius including Harrisburg, deaths per 1000 live births rose significantly from 8.6 to 17.2
3. for the 10 mile radius excluding Harrisburg, deaths per 1000 live births also rose significantly from 4.5 to 9.4

There are also significant increases when comparing the second and third quarters of 1978 and 1979.

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Table 5: infant deaths

Comparing the first quarter of 1978 to the first quarter of 1979, we find:

1. for the state of PA, deaths per 1000 live births dropped from 14.3 to 13.3
2. for the 10 mile radius including Harrisburg, deaths per 1000 live births increased from 14.0 to 19.3
3. for the 10 mile radius excluding Harrisburg, deaths per 1000 live births increased significantly from 7.5 to 12.6

There are also significant increases when comparing the second and third quarters of 1978 and 1979.

Table 6: perinatal deaths

Comparing the first quarter of 1978 to the first quarter of 1979, we find:

1. for the state of PA, deaths per 1000 deliveries dropped from 35.9 to 33.0
2. for the 10 mile radius including Harrisburg, deaths per 1000 deliveries rose significantly from 24.4 to 41.8
3. for the 10 mile radius excluding Harrisburg, deaths per 1000 deliveries rose significantly from 19.3 to 26.3

Table 7: perinatal deaths (excluding abortions)

Comparing the first quarter of 1978 to the first quarter of 1979, we find:

1. for the state of PA, deaths per 1000 deliveries remained at 22.8
2. for the 10 mile radius including Harrisburg, deaths per 1000 deliveries rose significantly from 21.3 to 39.8
3. for the 10 mile radius excluding Harrisburg, deaths per 1000 deliveries rose significantly from 16.3 to 26.3

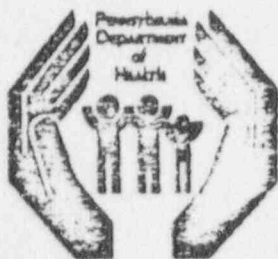
The questions are:

1. During the first quarter of 1979, Unit 2 had begun commercial operation, not without difficulties. And Unit 1 was being refueled. We may never be able to prove a direct link between these deaths that have been cited and events at Three Mile Island, but neither has anyone been able to disprove any link. Is it not indeed possible that events at TMI were responsible for the increased death rates?
2. Why has the state health department repeatedly ignored this evidence from their own statistics? Is the health department attempting to do an unbiased study or to cover up the results?

The conclusion is that neither Unit 1 nor Unit 2 at TMI must ever operate again as a nuclear plant. Our childrens lives are not an acceptable risk!

# PENNSYLVANIA DEPARTMENT of HEALTH

3/20/81/37



## NEWS

RELEASE : IMMEDIATE  
(Newsroom and Health Writers)

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TMI AREA INFANT DEATH RATES NO HIGHER THAN STATEWIDE AVERAGES,  
HEALTH DEPARTMENT REPORT SAYS

HARRISBURG, MARCH 20 — The state Health Department's director of Epidemiological Research said today he is convinced that if the Three Mile Island nuclear accident in March, 1979, had any influence on infant death rates, "a significant increase in infant deaths during the last six months of 1979 would have occurred within a 10 mile radius of the plant."

But a higher infant death rate did not occur. Dr. George Tokuhata said that during the third and fourth quarters of 1979, the rate fell to a much lower level than those experienced immediately preceding the accident.

"The rate of infant deaths (deaths under the age of one year) was 19.3 per 1,000 live births within a 10 mile radius of TMI during the first and second quarters of 1979. If the accident had caused an increase in infant deaths, we would have seen that increase build throughout the remainder of the year because of the timing of exposure in terms of the gestation period," Dr. Tokuhata said.

Instead the infant death rate dropped to 12.7 deaths per 1,000 live births during the months of July, August, and September. The infant death rate was 13.4 per 1,000 live births during the months of October, November, and December.

Dr. Tokuhata said that based on available information, "there is no evidence to date that radiation from the nuclear power plant influenced the rise or fall of statistics."

(Over)

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His remarks were based on an eight-page Health Department report of infant, neonatal, and fetal death rates from 1977 through 1979 that compared statewide figures to those for the area within 10 miles of the Three Mile Island plant.

The death rates are broken down into four categories:

- Statewide
- Areas within a 10 mile radius of TMI, including the city of Harrisburg
- City of Harrisburg
- Areas within a 10 mile radius of TMI, excluding the city of Harrisburg.

The 1979 figures show the infant death rate to be 11.8 per 1,000 live births within a 10 mile radius of TMI, excluding Harrisburg. The statewide figure for the same period of time was 13.4 per 1,000 live births.

The 1979 neonatal death rate (deaths within the first 28 days of life) was 9.2 per 1,000 live births within a 10 mile radius of the nuclear plant (excluding Harrisburg) compared to a statewide figure of 9.8 deaths.

Dr. Tokuhata said figures for fetal deaths (excluding abortions) showed a similar pattern. The 1979 fetal death rate was 13.1 statewide compared to 10.9 within a 10 mile radius of TMI, excluding Harrisburg.

Today's report includes data on former Commonwealth residents who moved out of state since the 1979 accident. Such data was not included in a provisional report released by the Health Department last May.

It also includes a listing of live births as well as perinatal death rates—a combination of fetal and neonatal figures.

Dr. Tokuhata listed two examples of what he characterized as "random variations and fluctuating statistics" appearing throughout the report. For example:

- In the three-year period from the first quarter of 1977 through the fourth quarter of 1979, the highest statewide fetal death rate (excluding

abortions) occurred in the second quarter of 1978 with a rate of 14.3 per 1,000 deliveries. The lowest state rate, 12.2, occurred in the fourth quarter of 1979. Within a 10 mile radius of TMI, the highest fetal death rate occurred in the first quarter of 1979, prior to the nuclear accident. That rate was 17.0, but fell off to 8.7 in the first three months after the accident and to 8.3 during the third quarter of the year.

-- The neonatal death rate for the first quarter of 1979 was 9.4 per 1,000 live births within a 10 mile radius of TMI (excluding Harrisburg). That rate rose to 14.7 for the second quarter of 1979 but decreased to 8.3 for the third quarter, and 4.4 for the final quarter of the year. Quarterly statewide rates for 1979 ranged from a low of 9.3 in the first and third quarters to a high of 10.5 in the second quarter.

"Fluctuating statistics have been recorded both before and after the the accident at Three Mile Island," Dr. Tokuhata said. He said the Health Department expects to release provisional January through June, 1980, death rates within two weeks.

Although the listings include and exclude the city of Harrisburg in the report, Dr. Tokuhata said only a small portion of south Harrisburg lies within the 10 mile radius of TMI.

# # #

TABLE 1: RESIDENT LIVE BIRTHS BY QUARTER: PENNSYLVANIA  
AND TEN MILE TMI AREA COMMUNITIES, 1977-1979

Year/Quarter	Pennsylvania	TMI Ten Mile Area		
		Total	Harrisburg City	Excluding Hbg. City
1977	(153,415)	(3,750)	(1,001)	(2,749)
Jan.-March	36,911	886	242	644
April-June	38,414	937	248	689
July-Sept.	40,181	977	274	703
Oct.-Dec.	37,909	950	237	713
1978	(151,438)	(3,803)	(1,057)	(2,746)
Jan.-March	37,084	926	261	665
April-June	36,339	922	262	660
July-Sept.	39,932	1,029	302	727
Oct.-Dec.	38,083	926	232	694
1979	(157,533)	(3,905)	(1,185)	(2,720)
Jan.-March	38,326	932	296	636
April-June	38,351	983	303	680
July-Sept.	41,933	1,023	302	721
Oct.-Dec.	38,923	967	284	683

( > 16 wks )

TABLE 2: RESIDENT FETAL DEATHS (TOTAL), NUMBER AND RATE, BY QUARTER: PENNSYLVANIA  
AND TEN MILE TMI AREA COMMUNITIES, 1977-1979

Year/Quarter	Number of Deaths				Death Rate Per 1,000 Deliveries*			
	Ten Mile TMI Area				Ten Mile TMI Area			
	Pa.	Total	Harrisburg City	Excluding Hbg. City	Pa.	Total	Harrisburg City	Excluding Hbg. City
Fetal Deaths (Total)								
1977	(4,058)	(80)	(45)	(35)	(25.8)	(20.9)	(43.0)	(12.6)
Jan.-March	1,062	16	10	6	28.0	17.7	39.7	9.2
April-June	992	18	9	9	25.2	18.8	35.0	12.9
July-Sept.	1,026	23	12	11	24.9	23.0	49.0	15.4
Oct.-Dec.	978	23	14	9	25.1	23.6	55.8	12.5
1978	(4,034)	(77)	(38)	(39)	(25.9)	(19.8)	(34.7)	(14.0)
Jan.-March	1,003	15	5	10	26.3	15.9	18.8	14.8
April-June	1,047	21	12	9	28.0	22.3	43.8	13.5
July-Sept.	1,001	20	10	10	24.5	19.1	32.1	13.6
Oct.-Dec.	983	21	11	10	25.2	22.2	45.3	14.2
1979	(3,608)	(67)	(37)	(30)	(22.4)	(16.9)	(30.3)	(10.9)
Jan.-March	938	24	13	11	23.9	25.1	42.1	17.0
April-June	916	12	6	6	23.3	12.1	19.4	8.7
July-Sept.	937	16	10	6	21.9	15.4	32.1	8.3
Oct.-Dec.	817	15	8	7	20.6	15.3	27.4	10.1

\*Deliveries: Live births and fetal deaths (including abortions).

TABLE 3: RESIDENT FETAL DEATHS (EXCLUDING ABORTIONS), NUMBER AND RATE, BY QUARTER: PENNSYLVANIA  
AND TEN MILE TMI AREA COMMUNITIES, 1977-1979

Year/Quarter	Number of Deaths				Death Rate Per 1,000 Deliveries*			
	Ten Mile TMI Area				Ten Mile TMI Area			
	Pa.	Total	Harrisburg City	Excluding Hbg. City	Pa.	Total	Harrisburg City	Excluding Hbg. City
Fetal Deaths (Excluding Abortions)								
1977	(2,007)	(62)	(33)	(29)	(12.9)	(16.3)	(31.9)	(10.4)
Jan.-March	503	15	10	5	13.4	16.6	39.7	7.7
April-June	482	9	5	4	12.4	9.5	19.8	5.8
July-Sept.	533	22	11	11	13.1	22.0	38.6	15.4
Oct.-Dec.	489	16	7	9	12.7	16.6	28.7	12.5
1978	(2,101)	(56)	(26)	(30)	(13.7)	(14.5)	(23.9)	(10.8)
Jan.-March	489	12	4	8	(13.0)	(12.8)	15.1	11.9
April-June	526	14	7	7	14.3	15.0	26.0	10.5
July-Sept.	541	16	8	8	13.4	15.3	25.8	10.9
Oct.-Dec.	545	14	7	7	14.1	14.9	29.3	10.0
1979	(2,091)	(64)	(34)	(30)	(13.1)	(16.1)	(27.9)	(10.9)
Jan.-March	526	22	11	11	(13.5)	(23.1)	35.8	17.0
April-June	537	11	5	6	13.8	11.1	16.2	8.7
July-Sept.	548	16	10	6	12.9	15.4	32.1	8.3
Oct.-Dec.	480	15	8	7	12.2	15.3	27.4	10.1

\*Deliveries: Live births and fetal deaths (excluding abortions).

## (FIRST 28 DAYS OF LIFE)

TABLE 4: RESIDENT NEONATAL DEATHS, NUMBER AND RATE, BY QUARTER: PENNSYLVANIA  
AND TEN MILE TMI AREA COMMUNITIES, 1977-1979

Year/Quarter	Number of Deaths				Death Rate Per 1,000 Live Births			
	Ten Mile TMI Area				Ten Mile TMI Area			
	Pa.	Total	Harrisburg City	Excluding Hbg. City	Pa.	Total	Harrisburg City	Excluding Hbg. City
Neonatal Deaths								
1977	(1,608)	(35)	(10)	(25)	(10.5)	(9.3)	(10.0)	(9.1)
Jan.-March	395	11	5	6	10.7	12.4	20.7	9.3
April-June	426	8	-	8	11.1	8.5	-0-	11.6
July-Sept.	404	6	2	4	10.1	6.1	7.3	5.7
Oct.-Dec.	383	10	3	7	10.1	10.5	12.7	9.8
1978	(1,540)	(26)	(11)	(15)	(10.2)	(6.8)	(10.4)	(5.5)
Jan.-March	366	8	5	3	(9.9)	(8.6)	19.2	4.5
April-June	402	7	2	5	11.1	7.6	7.6	7.6
July-Sept.	373	1	-	1	9.3	1.0	-0-	1.4
Oct.-Dec.	399	10	4	6	10.5	10.8	17.2	8.6
1979	(1,548)*	(52)	(27)	(25)	(9.8)	(13.3)	(22.8)	(9.2)
Jan.-March	358	16	10	6	(9.3)	(17.2)	33.8	9.4
April-June	404	19	9	10	10.5	19.3	29.7	14.7
July-Sept.	392	8	2	6	9.3	7.8	6.6	8.3
Oct.-Dec.	393	9	6	3	10.1	9.3	21.1	4.4

\*Includes one death, month of occurrence, unknown.

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(< 1%)

TABLE 5: RESIDENT INFANT DEATHS, NUMBER AND RATE, BY QUARTER: PENNSYLVANIA  
AND TEN MILE TMI AREA COMMUNITIES, 1977-1979

Year/Quarter	Number of Deaths				Death Rate Per 1,000 Live Births			
	Pa.	Total	Ten Mile TMI Area		Pa.	Total	Ten Mile TMI Area	
			Harrisburg City	Excluding Hbg. City			Harrisburg City	Excluding Hbg. City
Infant Deaths								
1977	(2,137)	(47)	(15)	(32)	(13.9)	(12.5)	(15.0)	(11.6)
Jan.-March	544	13	6	7	14.7	14.7	24.8	10.9
April-June	554	11	2	9	14.4	11.7	8.1	13.1
July-Sept.	520	9	3	6	12.9	9.2	10.9	8.5
Oct.-Dec.	519	14	4	10	13.7	14.7	16.9	14.0
1978	(2,031)	(41)	(18)	(23)	(13.4)	(10.8)	(17.0)	(8.4)
Jan.-March	530	13	8	5	(14.3)	(14.0)	30.7	7.5
April-June	509	9	3	6	14.0	9.8	11.5	9.1
July-Sept.	473	5	1	4	11.8	4.9	3.3	5.5
Oct.-Dec.	519	14	6	8	13.6	15.1	25.9	11.5
1979	(2,118)*	(63)	(31)	(32)	(13.4)	(16.1)	(26.2)	(11.8)
Jan.-March	511	18	10	8	(13.3)	(19.3)	33.8	12.6
April-June	537	19	9	10	14.0	19.3	29.7	14.7
July-Sept.	507	13	3	10	12.1	12.7	9.9	13.9
Oct.-Dec.	562	13	9	4	14.4	13.4	31.7	5.9

\*Includes one death, month of occurrence, unknown.

(fetal + neonatal)

TABLE 6: RESIDENT PERINATAL DEATHS (TOTAL), NUMBER AND RATE, BY QUARTER: PENNSYLVANIA  
AND TEN MILE TMI AREA COMMUNITIES, 1977-1979

Year/Quarter	Number of Deaths				Death Rate Per 1,000 Deliveries*			
	Pa.	Ten Mile TMI Area			Pa.	Ten Mile TMI Area		
		Total	Harrisburg City	Excluding Hbg. City		Total	Harrisburg City	Excluding Hbg. City
Perinatal Deaths (Total)								
1977	(5,666)	(115)	(55)	(60)	(36.0)	(30.0)	(52.6)	(21.6)
Jan.-March	1,457	27	15	12	38.4	29.9	59.5	18.5
April-June	1,413	26	9	17	36.0	27.2	35.0	24.4
July-Sept.	1,430	29	14	15	34.7	29.0	49.0	21.0
Oct.-Dec.	1,361	33	17	16	35.0	33.9	67.7	22.2
1978	(5,574)	(103)	(49)	(54)	(35.9)	(26.5)	(44.7)	(19.4)
Jan.-March	1,369	23	10	13	(35.9)	(24.4)	37.6	19.3
April-June	1,449	28	14	14	38.8	29.7	51.1	20.9
July-Sept.	1,374	21	10	11	33.6	20.0	32.1	14.9
Oct.-Dec.	1,382	31	15	16	35.4	32.7	61.7	22.7
1979	(5,156)**	(119)	(64)	(55)	(32.0)	(30.0)	(52.4)	(20.0)
Jan.-March	1,296	40	23	17	(33.0)	(41.8)	74.4	26.3
April-June	1,320	31	15	16	33.6	31.2	48.5	23.3
July-Sept.	1,329	24	12	12	31.0	23.1	38.5	16.5
Oct.-Dec.	1,210	24	14	10	30.4	24.4	47.9	14.5

\*Deliveries: Live births and fetal deaths (including abortions).

\*\*Includes one death, month of occurrence unknown.

TABLE 7: RESIDENT PERINATAL DEATHS (EXCLUDING ABORTIONS), NUMBER AND RATE, BY QUARTER: PENNSYLVANIA  
AND TEN MILE IMI AREA COMMUNITIES, 1977-1979

Year/Quarter	Number of Deaths				Death Rate Per 1,000 Deliveries*			
	Ten Mile IMI Area				Ten Mile IMI Area			
	Pa.	Total	Harrisburg City	Excluding Hbg. City	Pa.	Total	Harrisburg City	Excluding Hbg. City
Perinatal Deaths (Excluding Abortions)								
1977	(3,615)	(97)	(43)	(54)	(23.3)	(25.4)	(41.6)	(19.4)
Jan.-March	898	26	15	11	24.0	28.9	59.5	16.9
April-June	908	17	5	12	23.3	18.0	19.8	17.3
July-Sept.	937	28	13	15	23.0	28.0	45.6	21.0
Oct.-Dec.	872	26	10	16	22.7	26.9	41.0	22.2
1978	(3,641)	(82)	(37)	(45)	(23.7)	(21.2)	(34.2)	(16.2)
Jan.-March	855	20	9	11	(22.8)	(21.3)	34.0	16.3
April-June	928	21	9	12	25.2	22.4	33.5	18.0
July-Sept.	914	17	8	9	22.6	16.3	25.8	12.2
Oct.-Dec.	944	24	11	13	24.4	25.5	46.0	18.5
1979	(3,639)**	(116)	(61)	(55)	(22.8)	(29.2)	(50.0)	(20.0)
Jan.-March	884	38	21	17	(22.8)	(39.8)	68.4	26.3
April-June	941	30	14	16	24.2	30.2	45.5	23.3
July-Sept.	940	24	12	12	22.1	23.1	38.5	16.5
Oct.-Dec.	873	24	14	10	22.2	24.4	47.9	14.5

\*Deliveries: Live births and fetal deaths (excluding abortions).

\*\*Includes one death, month of occurrence unknown.

TABLE 8: FETAL, NEONATAL, AND INFANT DEATH RATES BY MONTH: PENNSYLVANIA, TEN MILE TMI AREA COMMUNITIES  
(INCLUDING AND EXCLUDING HARRISBURG CITY) AND HARRISBURG CITY, JANUARY - DECEMBER, 1979

Month	Geographic Area				Geographic Area			
	Pa.	TMI (10 Mile)	Harrisburg City	TMI (Excl. Hbg.)	Pa.	TMI (10 Mile)	Harrisburg City	TMI (Excl. Hbg.)
Fetal Death (Total) Rates					Fetal Death (Excluding Abortions) Rates			
January	24.1	29.9	31.9	29.0	15.1	26.9	21.5	29.0
February	22.3	23.3	44.6	10.6	12.5	23.3	44.6	10.6
March	25.1	21.8	48.5	9.2	13.0	18.8	39.2	9.2
April	22.8	16.1	31.3	9.3	12.7	16.1	31.3	9.3
May	24.6	11.2	9.3	12.0	15.3	8.4	-0-	12.0
June	22.5	9.2	19.0	4.5	13.4	9.2	19.6	4.5
July	20.6	13.3	29.4	7.3	12.7	13.3	29.4	7.3
August	22.4	15.2	20.6	12.9	13.1	15.2	20.6	12.9
September	22.5	18.0	44.2	4.5	13.0	18.0	44.2	4.5
October	20.7	18.8	42.1	8.9	11.5	18.8	42.1	8.9
November	19.8	21.1	41.7	12.7	11.9	21.1	41.7	12.7
December	21.2	6.1	-0-	8.7	13.2	6.1	-0-	8.7
Jan. - Dec.	22.4	16.9	30.3	10.9	13.1	16.1	27.9	10.9
Neonatal Death Rates					Infant Death Rates			
January	9.9	21.5	33.0	17.1	14.8	21.5	33.0	17.1
February	9.8	10.2	28.0	-0-	13.6	13.7	28.0	5.4
March	8.4	19.1	40.8	9.3	11.7	22.3	40.8	13.9
April	10.7	19.6	32.3	14.1	14.0	19.6	32.3	14.1
May	10.1	16.9	18.7	16.2	14.7	16.9	18.7	16.2
June	10.8	21.7	38.8	13.6	13.3	21.7	38.8	13.6
July	10.8	5.4	10.1	3.7	12.7	10.8	10.1	11.1
August	7.5	6.2	-0-	8.7	10.4	12.3	10.5	13.0
September	9.9	12.2	9.3	13.6	13.1	15.2	9.3	18.2
October	9.8	9.6	11.0	9.0	14.0	12.7	22.0	9.0
November	10.9	6.2	21.7	-0-	15.2	9.2	32.6	-0-
December	9.6	12.2	29.7	4.4	14.1	18.3	39.6	8.8
Jan. - Dec.	9.8	13.3	22.8	9.2	13.4	16.1	26.2	11.8