



“Keeping Our Community
Safe and Alert”

*The EFMR Monitoring Group is a nonprofit
nonpartisan organization which monitors radiation levels
surrounding Three Mile Island Nuclear Station*

E F M R - H a r r i s b u r g

4100 Hillsdale Road, Harrisburg • 717.541.1101

W W W . E F M R . O R G

On September 22, 1983,
Dauphin County
Commissioners passed a
resolution to establish air
emissions standards for TMI.

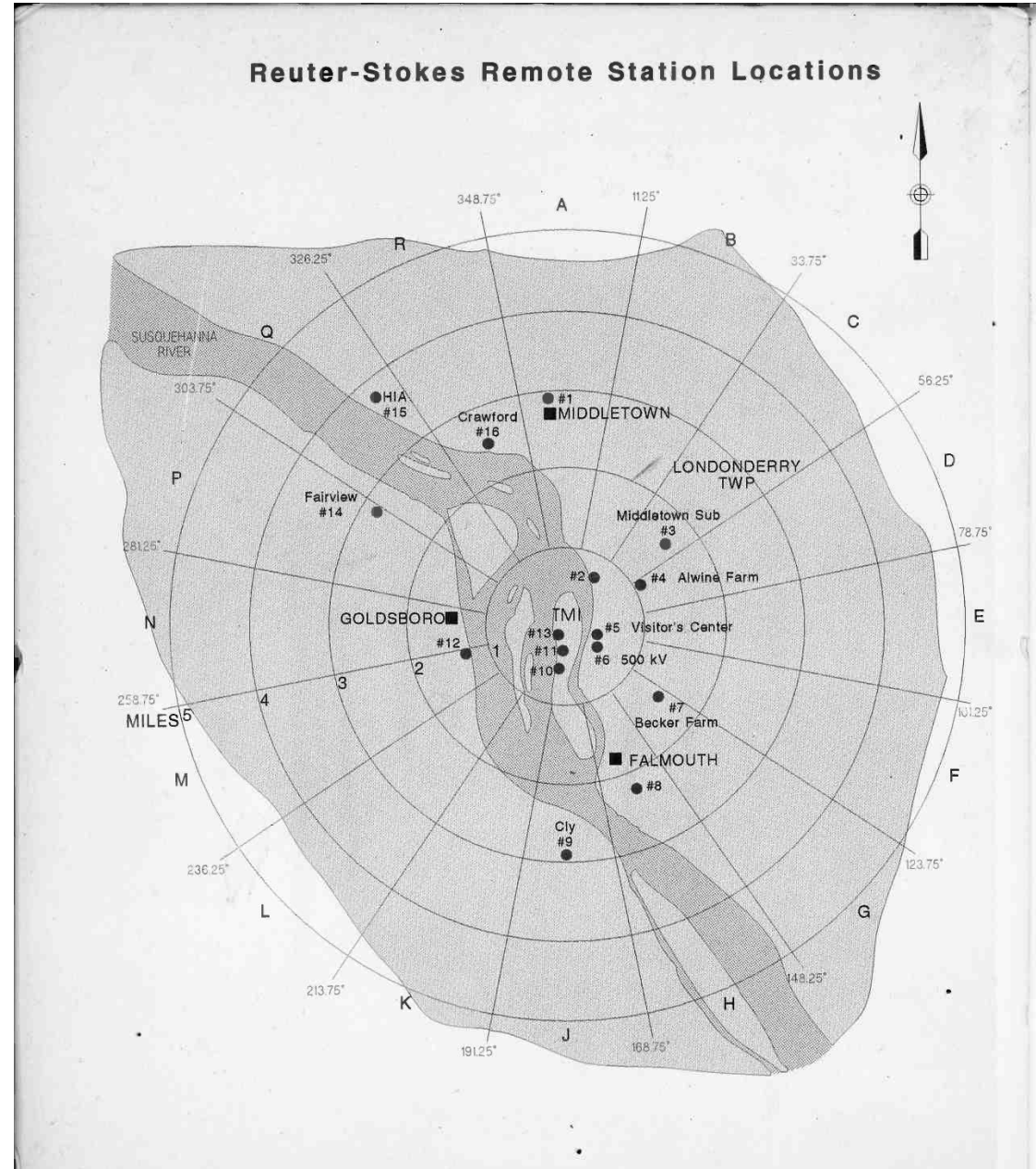
The county also established a
task force to write the
ordinance. This is the first
time a county takes legally
binding action to control the
hazards caused by nuclear
power operations.

The Clean Air Ordinance was
never implemented.



TMIA partnered with Dauphin County Commissioners and GPU: Reuter-Stokes Real Time Gamma Monitoring. Sixteen stations around TMI.

Print out in Courthouse, and sensitive enough to detect laundry shipments and very active during defueling.



1992: Comprehensive TMI-2 settlement included information exchange, POL, on-line access to Reuter-Stokes, regular meetings, and a Remote Temperature Detector.



Education:

- Nonjudgmental curriculum
- Graphic novel
- Timeline.
- Available on line.



**Sixty out of 75 monitors
deployed:**

**Hand held monitors and hand
reporting. They were monitors
deployed to a wide cross-
section of the community —
individuals, high schools,
colleges, community-based
organizations and plant
workers — actively involved in
gathering daily radiation data.**

**The collected data is
forwarded to the Dickinson
College Department of Physics
and Astronomy which has
been responsible for compiling
and analyzing the data for
more than a dozen years.**



- **Controversial partnership with Dickinson College.**
- **Created manual for three hour trainings at Dickinson College. Dickinson lab built with funding from GPU. Dickinson students collected samples from Low-Volume Air Samplers. Third parity agreement for fees and stipends for quarterly ad weekly readings.**

Challenges:

- Attitudes
- calibration and 30 cpm
- data and information gathering
- East and West Shore biases
- false positives
- filter exchange for five low volume air samplers on goat farm
- no municipal readings
- noise
- nuclear medicine
- people move
- radon masking
- timeliness, and
- weather



Transition:

EFMR secured five Thermo Eber- line monitors and strategically placed them in the area around Three Mile Island. Based on careful study of population concentrations and prevailing wind currents, five monitors have been located in Etters, Lower Swatara and South Harrisburg, and Yocumtown.

The new monitors had a series of gamma dose rate detectors which use the NBR (National Background Rejection) method to discriminate between normal background gamma radiation and other sources of radiation. This clearly indicates whether an increase in radiation was due to artificial sources in the environment or merely a normal, natural event due to changes of weather, temperature, or rain. Therefore, these devices are ideally suited for environmental monitoring.

Bad equipment and poor support from Thermo-Eberline. German and metric standards created software conversion challenges. Five separate phone bills and zoning hurdles. There were masking issues from the Incinerator and steel mill.

Exelon Agreement in 2008: ST-10 Manual: EFMR staff created real-time monitor.

Eric, Not bad for a Lancaster paper. DK

Lancaster Intell Mon., 3/29/99

Monday's **Q&A**

She's minding the store

● *What does a radiation monitor do?*

I check a Radalert monitor six times throughout the day and record the time and the reading. Monitors like mine measure beta and gamma radiation. I took the training at Dickinson College in 1993 and have been doing it ever since. It doesn't take long, and it has become a part of my daily routine. I also record the weather and the wind direction for the day. At the end of each month, I send the information to Harrisburg, where an independent statistician from Economic Insights compiles the information.

● *Why do you do it?*

I think the accident at TMI showed a lot of people that we can't always rely on information put out by "experts," especially when most of the information made public comes from the company's public relations department. Although I feel confident that TMI is more safely run now than it was in the days prior to the accident, there have been a series of errors, both human and mechanical, that have occurred since then. I think it is important that there be an independent source of information about a company that has the potential to pose such a hazard to the health and safety of the residents in the Susquehanna Valley.

● *How many other people are involved in volunteer monitoring?*

There are about 60 people from all walks of life who have taken the same training I took and are recording information from their Radalert monitors. Most of the volunteers live in eight Pennsylvania counties surrounding TMI. Two people live in Maryland.

● *Has the TMI accident changed the way people think?*

I think the general public is not as naive about accepting everything it is told by industries or government organizations. I remember my friend putting a bumper sticker on her car after the TMI accident that

"I think the accident at TMI showed a lot of people that we can't always rely on information put out by 'experts.'"



Doris Robb

Volunteer radiation monitor; member of Susquehanna Valley Alliance, a citizens group that formed in response to the accident at Three Mile Island in 1979; teacher at Lancaster Country Day School.

Education: Attended University of Maryland; earned teaching certificate from Millersville University.

Residence: Manor Township

Husband: George

Children: Two daughters, Valerie and Leslie; and a son, George III

read: "Question Authority." We were amused and amazed by the number of people who would ask, "What does that mean?" I don't think people would be as puzzled by it today.

—Lynn Miller

- **No regulatory real-time, off-site monitoring.**
- **Part-time computer technician supported by contracted employees who worked at Peach Bottom, Saxton or Three Mile Island.**
- **Citizen real-time monitoring with ST-10. Remote data retrieval. Locations based on population and wind rose.**

Challenges:

Aging volunteer
base, data
overload, funding,
lack of support,
nuclear support,
and site visits



- AmerGen/British Energy agreed to exceed NRC work force staffing requirements at TMI-1. MOU with the NRC.
- Not in force: 802-525-50



**Decommissioning:
NDCA and 5%/\$50
million dollar
agreement with
NDCA plants.**

**In force in
perpetuity.**

Decommissioning

Archives and oral histories stored at Dickinson College.

EFMR was created and held “Rad Alert” Training at Dickinson College with the Department of Physics and Astronomy annually for the ten years.

Nuclear Energy
and the
Three Mile Island Unit Two Accident
Lesson Plans and Resource Guide



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www.efmr.org

- Emergency planning: Increased capacity and number of monitors at Peach Bottom and Three Mile Island.
- Phase out mode.



- Exelon and EFMR will meet annually to review the status of matters relating to this agreement, provide mutual updates, resolve open issues and discuss workforce staffing.
- Not in force. Bailout took back all gains.

**MEETING
CANCELLED**

KI: Distributed 40,000 tablets post 9/11 within 50 miles. Still in force.

Way to Go!

HUMMELSTOWN, HERSHEY, ELIZABETHTOWN, MIDDLETOWN, PALMYRA & ANNVILLE AREAS

Live, Work Or Go To School Within 10 Miles Of T.M.I.?
Free Potassium Iodide Pills Available August 4

If you live, work, or go to school within 10 miles of Three Mile Island, Potassium Iodide (KI) pills are available to you. The Pennsylvania Department of Health will distribute free KI tablets on Thursday, August 4, from 2:00 to 7:00 p.m. at the Main Street Gym, 32 W. Main Street, Middletown, and at the Hummelstown Fire Hall, 249 E. Main Street, Hummelstown.

In the unlikely event that a radiological emergency occurs, taking KI tablets as directed can help protect the thyroid gland against harmful radioactive iodine. Anyone can take the tablets as long as they are not allergic to KI. They are safe for pregnant women and those who are breastfeeding, taking thyroid medicine, and children and infants. Individuals who are unsure if they should take KI should consult their healthcare provider.

Visit www.health.pa.gov, or call 1-877-724-3258, for more information.

DHA

Dunkleberger Hearing Aids, LLC



112 E. Main Street,
Hummelstown, PA 17036

(717) 566-9910

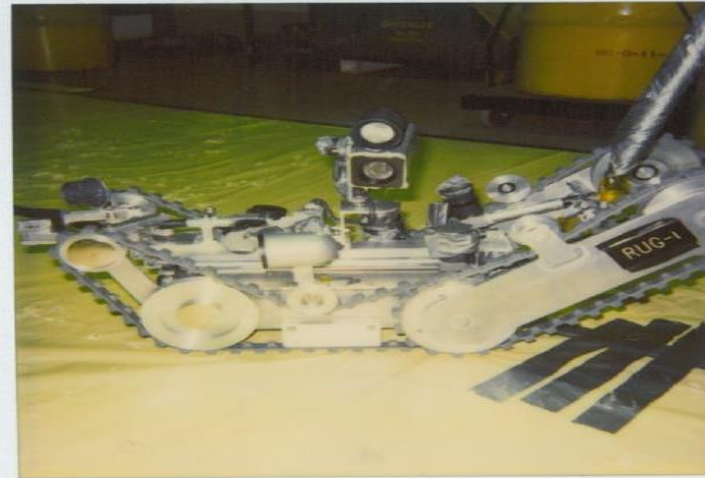
★ ★ "Call Us EAR Responsible" ★ ★

★ JULY SPECIALS ★

- PECO agreed not to use mixed uranium oxide fuel at Peach Bottom, Limerick, and Salem nuclear plants.
- Not in force.



- Robotics research at Peach Bottom and TMI: Dose savings.
- In two separate agreements, EFMR negotiated \$900,000 in remote robotics research from GPU and \$500,000 from PECO. These programs have significantly reduced worker exposure at both the TMI and Peach Bottom Plants.
- Projected completed.



MISR II



Scavenger

Settlements tied to economic development and low-income energy assistance.

In the shadow of deregulation, EFMR negotiated with First Energy to maintain corporate community investments in central Pennsylvania for three years, and increased Exelon's community investment by 5% annually.

Completed.



**EFMR contributed
\$30,000 to establish
the Greater
Middletown Economic
Development
Corporation.**

A digital display showing the amount \$30,000. The display is a black rectangular box with white characters. The characters are arranged from left to right: a dollar sign (\$), the digit 3, a comma (,), the digit 0, the digit 0, the digit 0, and the digit 0. The background of the display is blue.

\$ 3 0 , 0 0 0

Security :

- AmerGen agreed not to conduct business with nor transfer technology to any company, organization or nation that the United States is boycotting for economic or military reasons, including no business with nations that have not
- signed a nuclear arms nonproliferation treaty. Not in force.



Mid 1990s high point with Dickinson, GPU and the NRC.

President of the B'Nai Jacob Synagogue.

Mid to late 2000s high point with Exelon

Never worked well with the DEP or EPA.

2018: Relationship deteriorated with DEP, Exelon, NRC, and even the SRBC.

Recommendations



**Recommendations:
Matthew Mackenzie,
at the NRDC.
Dan Sythe,
International
Medcom.**

Benefits:

- additional layer of security
- better relationships with workers
- community control
- economic investment
- funding for community programs
- increased standing in the community
- partnership on radiation monitoring
- trust levels increased, and
- worker feedback was important, e.g., Peach Bottom sleeping incident.





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