

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

65 FEB -5 A9:49

In the Matter of)
)
THE CLEVELAND ELECTRIC) Docket Nos. 50-440
ILLUMINATING COMPANY) 50-441
)
(Perry Nuclear Power Plant,)
Units 1 and 2))

AFFIDAVIT OF
RONALD W. SMITH
OF CONTENTION M

County of Lake)
) ss:
State of Ohio)

Ronald W. Smith, being duly sworn, deposes and says:

1. I am presently Government Affairs Representative, Community Relations Section, The Cleveland Electric Illuminating Company ("CEI"). My business address is 10 Center Road, Perry, Ohio 44081. In my position, my duties include assisting State and county governments with their emergency planning and preparedness and coordinating those efforts with each other and with CEI. Included in these efforts is the coordination of the State of Ohio's off-site radiological monitoring capability. A current statement of my professional and technical qualifications is attached hereto. I have personal knowledge of the matters stated herein and believe them to be true and correct. I make this affidavit in support of Applicants' Motion for Summary Disposition of Contention M.

2. Contention M states that Independent Radiation Data Monitoring Systems should be installed within the 10-mile

Emergency Planning Zone (EPZ). Sunflower's argument is that each of the three counties within the plume exposure pathway EPZ should have fixed radiation monitors, meteorological equipment and telemetering equipment. Sunflower Alliance's Particularized Objections to Proposed Emergency Plans in Support of Issue No. 1, dated August 20, 1984, pages 17-18.

3. There is no regulatory requirement that each jurisdiction within the plume exposure pathway EPZ have independent radiation monitoring systems or that such systems be fixed. The NRC/FEMA guidance says that

Each organization, where appropriate, shall provide for off-site radiological monitoring equipment in the vicinity of the nuclear facility.

NUREG-0654, Criterion H.7 (p. 54) (emphasis added). This equipment need not be stationary; it can be portable.

NUREG-0654, Criterion I.7 states that

Each organization shall describe the capability and resources for field monitoring within the plume exposure pathway Emergency Planning Zone which are an intrinsic part of the concept of operations of the facility.

This criterion does not require that each organization have its own capability, but rather that each organization describe the monitoring capability on which it will rely.

4. In the case of the Perry facility, the State of Ohio has extensive independent radiological assessment capability, including off-site radiological monitoring equipment.^{1/} The

^{1/} Each of the three plume exposure pathway EPZ counties relies on the State's field radiation monitoring

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State's system consists of three key elements: (1) a centralized command and control facility in the State emergency operations center (EOC) in Columbus which includes a dedicated computer system for analysis and evaluation of radiological data and related dose rates for the key isotopes and for converting parameters for these isotopes (State Plan § II-Part I 2a(3) and 3g (3)); (2) three fully equipped field radiological monitoring teams capable of high, mid and low range gamma radiation readings, alpha and beta radiation detection, air sampling for radioiodine and particulates (State Plan, Figure II-H-1); environmental sampling (State Plan § II, Part H 5a), and aerial survey of a radioactive plume (State Plan § II, Part I 2d (2)); (3) a radio communication system for the immediate and simultaneous transmission of data from the field teams to the State EOC in Columbus, the PNPP emergency operations facility (EOF), the Lake County EOC, the Ashtabula County EOC, and the Geauga County EOC.

5. The three field monitoring teams take radiological readings and environmental samples such as water, soil, and

(Continued)

capability to demonstrate compliance with NUREG-0654 Criterion I.7. Lake Plan, § I-02; Ashtabula Plan, § I.2; Geauga Plan, § I-2. FEMA has found, in its Interim Report, that each of the three plans has complied with this criterion.

vegetation at preselected monitoring points (State Plan, Figure II-J-36). By moving from point to point in areas where the plume is projected to be, the teams' measurements, when assembled at the State EOC, form a "picture" of a radiation plume. The preselected monitoring points are located systematically throughout the entire plume exposure pathway EPZ which allows for systematic monitoring in any area deemed appropriate. Also, monitoring teams conduct aerial surveys by flying over the areas of the projected path of the plume. In this way the teams' data is compiled to define the actual midpoint and boundaries of the plume as well as the intensity of radiation present.

6. Each monitoring team carries portable (hand-carried) and mobile (in-vehicle) radios which operate on the Disaster Service Agency Direction and Control frequencies (transmitting at 150.10 MHz and receiving at 150.70 MHz). Field data is relayed directly to the county EOCs and the EOP instantaneously through a repeater system in the communications van. Data is also relayed to the State EOC through the communications van. (State Plan, Figure II-E-9).

7. Each radiological monitoring team has the following equipment (State Plan, Figure II-H-1):

- CDV-715 Survey meter; range-05 R/hr to 500 R/hr
(high and mid level gamma radiation
measurement)

- CDV-700 Survey meter; range-0 mR/hr to 50 mR/hr
(low level gross gamma radiation
measurement and beta radiation detection)
- PRM-7 Scintillator detector; range-.005 mR/hr to
5 mR/hr (very low level gamma radiation
measurement)
- PRS-1P Base rate meter and scaler used with the
following four probes:
 - SPA-3 Scintillator probe; range-0 to
999,999 CPM (detects radioiodine
and is used to monitor the silver
zeolite cartridge used in air
sampling)
 - HP-210 Geiger-Mueller Tube; range-0 to
200 mR/hr (low level gross gamma
radiation and beta radiation
detector)
 - AC-3-7 Scintillator; range-0 to 999,999
CPM (alpha radiation detector)
- RAS-1 Regulated Air Sampler with silver zeolite
cartidges.

The equipment used by State radiological monitoring teams affords fully effective field monitoring for detection and measurement of any release from a nuclear power plant.

8. The State Radiological Response teams are sufficient in number, suitably equipped with radiological equipment, and have the communications capability to provide effective radiation plume tracking that is independent of the PNPP field radiation monitoring teams. The State teams are notified on declaration of an Unusual Event (the lowest level of emergency classification) and are activated and dispatched on declaration of an Alert. The State teams were fully exercised during the emergency exercise held on November 28, 1984.

9. Additionally, the Federal Government responds to nuclear power plant incidents with a full cadre of field monitoring teams. The Department of Energy (DOE), the Environmental Protection Agency, and the Nuclear Regulatory Commission each have field radiological monitoring capability that matches that described here for the State of Ohio. DOE coordinates field data (collected via radio transmission from the Federal Government response teams) at a central point called the Federal Radiological Monitoring and Assessment Center and in turn relays its consolidated information and recommendations to the State and county EOCs and the EOF.

10. The independent radiological monitoring capability of the State of Ohio is more than adequate to meet the requirements of Criterion H.7 of NUREG-0654. There is no reason why it is appropriate for the three plume exposure pathway EPZ counties to be required to have their own off-site radiological monitoring equipment.

11. Sunflower's August 20, 1984 objections also cite to page 58 of NUREG-0654 as a basis for contention. The only possible source on that page for Sunflower's reference is Criterion I.10 which states

Each organization, where appropriate, shall provide methods, equipment and expertise to make rapid assessments of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways.

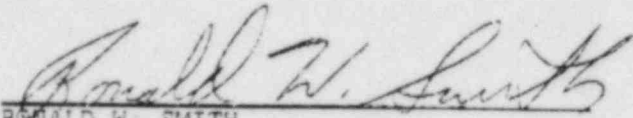
NUREG-0654, page 58 (emphasis added). With the capabilities described above, there is no reason why it is appropriate to require the three counties to have independent radiological monitoring systems.

12. Sunflower also suggests that a resolution by the trustees of Jefferson Township provides a basis for this contention. That resolution states the Township's resolution to

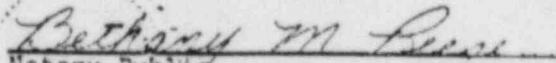
[R]equest and support the installation and maintenance of independent monitoring facilities and procedures at and around the Perry Nuclear Power facility.

Sunflower August 20, 1984 Objections, page 18. Jefferson Township, although located in Ashtabula County, is well outside the plume exposure pathway EPZ. And the radiation monitoring capabilities described above would meet the requirements of the Township's resolution.

13. In summary, there are independent radiation monitoring systems for the plume exposure pathway EPZ. These systems are capable of detecting and measuring the release from a nuclear power plant and meet all regulatory guidance.


RONALD W. SMITH

Subscribed and sworn before
me this 30 day of January, 1985.


Notary Public

My Commission Expires:

BETHANY J. REESE
Notary Public - STATE OF OHIO
My Commission expires 3/11/88
(Recorded in Lake County)

*How known as
Bethany M. Reese*

RESUME

Name: Ronald W. Smith

Position: Government Affairs Representative, Community Relations Section
Perry Nuclear Power Plant, Perry, Ohio 44081

EDUCATION: The Wharton School, University of Pennsylvania,
Philadelphia, PA
Master of Governmental Administration 1976

The Pennsylvania State University, University Park, PA
Master of Science 1964

Indiana University of Pennsylvania, Indiana, PA
Bachelor of Science 1963

EXPERIENCE:

April 1984 to present: Cleveland Electric Illuminating Company
Perry Nuclear Power Plant

Head of the Emergency Planning Unit in the Community Relations Section. Provide consulting services and direct assistance to off-site emergency response agencies, especially state and county disaster services agencies. Duties include: facilitation of coordination of plans (on-site to off-site and among off-site plans) and development of plans and procedures that adhere to Federal Government regulations and guidance and will also work in practice; coordination of training efforts among state, county, utility, and consultant personnel who provide training to off-site agencies; liaison with Ohio Disaster Services Agency and FEMA on planning and preparedness matters, training efforts, and exercise arrangements; supervise company employed consultants who provide emergency planning and preparedness assistance to counties.

1980 to April 1984: Planner and Emergency Management Specialist with the Pennsylvania Emergency Management Agency, Harrisburg, PA

Developed a new state level plan for off-site emergency response to accidents at Three Mile Island Nuclear Station and other nuclear power plants in Pennsylvania. Wrote major portions of eleven county plans that surround nuclear power plants. Developed policies and procedures related to nuclear power plant accidents for the state,

risk counties, risk municipalities, and risk institutions. Organized, participated in, and evaluated several large scale exercises designed to test the effectiveness of the radiological emergency response plans and to train the hundreds of participants. Assisted numerous state agencies in developing disaster response plans. Initiated, developed and conducted training sessions related to response to nuclear power plant accidents for state employees, county and municipal emergency personnel.

1974 - 1980: Program Analyst with the Legislative Budget and Finance Committee, Harrisburg, PA

Researched and evaluated programs funded by the General Assembly. Gathered descriptive information with appropriate statistical data and organized and analyzed this information to ascertain strengths and weaknesses of administrative procedures as well as adherence to legislative intent. Wrote formal in-depth reports on such studies which included descriptive information and data, findings, and recommendations. Duties included follow through action to help implement the study recommendations.

1974 - Prior: Education specialist in the Staff Development and Improvement section of the Pennsylvania Bureau of Correction, Camp Hill Pa. Special Education teacher with Harrisburg City Schools and Dauphin County Schools, Harrisburg, Pa.

MILITARY: United States Army active duty 1964-1966 with 48th Medical Battalion, 2AD, Fort Hood, Texas
Commander of a field hospital that provided emergency and short term medical care. Company and Battalion Chemical-Radiological-Biological Warfare Officer.