UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

| | | |
|---|---|---|
| In the Matter of | ) | |
| | ) | |
| PENNSYLVANIA POWER AND LIGHT COMPANY | ) | Docket No. 50-387 - OL |
| AND ALLEGHENY ELECTRIC COOPERATIVE | ) | 50-388 - OL |
| | ) | |
| Susquehanna Steam Electric Station, | ) | |
| Units 1 and 2 | ) | |

AFFIDAVIT OF FALK KANTOR, EDWARD F. WILLIAMS, JR., AND BRIAN K. GRIMES

We, Falk Kantor, Edward F. Williams, Jr., and Brian K. Grimes, being duly sworn, depose and state that:

1. I, Falk Kantor, am an employee of the U. S. Nuclear Regulatory Commission (NRC). My present position is Senior Emergency Preparedness Specialist, Emergency Preparedness Licensing Branch, Division of Emergency Preparedness within the Office of Inspection and Enforcement. A copy of my professional qualifications is attached.

2. I, Edward F. Williams, Jr., am an employee of the U. S. Nuclear Regulatory Commission (NRC). My present position is Emergency Preparedness Specialist, Incident Response and Development Branch, Division of Emergency Preparedness within the Office of Inspection and Enforcement. A copy of my professional qualifications is attached.

3. I, Brian K. Grimes, am an employee of the U. S. Nuclear Regulatory Commission (NRC). My present position is Director, Division of Emergency Preparedness within the Office of Inspection and Enforcement. A copy of my professional qualifications is attached.

4. This affidavit responds to the questions directed to the NRC staff by the Atomic Safety and Licensing Appeal Board in the order of August 20, 1982, concerning dosimetry for emergency workers within the Susquehanna plume exposure pathway Emergency Planning Zone (EPZ).

5. Related to the question of the type of dosimetry needed for offsite emergency workers is the question of who is an emergency worker. The staff considers an offsite emergency worker to be an individual such as a survey team member, policeman, fireman, or medical attendant who may be required to engage in missions to save human lives or in other emergency operations related to protecting the health and safety of persons during early post-accident periods in an area where significant radiation doses may be received.

6. A FEMA memorandum which was considered in the development of the NRC position on emergency worker personnel monitoring is enclosed. The position stated in the internal FEMA memorandum appears to put less weight on the control of accumulated dose during exposure than does the NRC staff position.

QUESTION

7. Absent other compensatory actions, how many and what type of self-reading dosimeters must each emergency worker within the Susquehanna plume exposure pathway EPZ wear in order to provide reasonable assurance that adequate protective measures to control radiological exposure are being taken?

RESPONSE

8. The minimum technical objectives which emergency worker dosimetry must fulfill are (1) a readout range approaching or exceeding the protective action guide exposure for emergency workers (25 rem for whole body exposure to gamma radiation), (2) an ability to project near-term exposures with adequate accuracy and (3) a good recordkeeping system for integration of the total whole-body exposure received. Minimum acceptable dosimetry systems for emergency personnel monitoring to fulfill these objectives would consist of any of the following options:

   a. One 0-20 roentgen (R) self-reading dosimeter with an acceptable administrative control system to ensure integration of the dose.

   b. One high range (e.g., 0-200R) self-reading dosimeter and one lower range (e.g., 0-5R) self-reading dosimeter with an acceptable administrative control system to ensure integration of the dose.

   c. One high range self-reading dosimeter with an administrative control system to ensure integration of the dose and a survey rate instrument, used by a trained individual, with each team of emergency workers to monitor dose rates over an extended range of 0.1 to 50 R/hr.

d. On an interim basis, one high range self-reading dosimeter for each emergency worker and an intermediate (e.g., 0-20R) or lower range (e.g., 0-5R) self-reading dosimeter with each team of emergency workers in place of a survey meter. An administrative control system to assure integration of the dose, special procedures for the individual with the intermediate or /lower range dosimeter as to his team responsibilities, and procedures to assure that those individuals represented by a single intermediate or lower range dosimeter are performing adjacent and similar tasks.

The primary advantage of the 0-20R or lower range dosimeters or the survey instrument is that periodic readings which will provide a more accurate projection of integrated exposures can be made by emergency workers; however, the integrated exposure to be monitored is a dose approaching the protective action guide dose for emergency workers for which the high range self-reading dosimeter is also suitable.

The preferred personnel dosimetry for each emergency worker within the plume exposure pathway Emergency Planning Zone (EPZ) is one 0-20R or lower range (e.g., 0-5R) self-reading dosimeter, one high range (e.g., 0-200R) self-reading dosimeter and a thermoluminescent dosimeter (TLD) to integrate total exposure during an emergency. This arrangement provides (1) some redundancy by the overlapping ranges, (2) an ability (by use of the 0-20R or 0-5R range dosimeters) to project near-term exposures with adequate accuracy, (3) a read-out range extending above the protective action guide dose for emergency workers (25 rem for whole body exposure to gamma radiation), and (4) a means for a recordkeeping system for integration of the total whole-body dose received.

QUESTION

9. In conjunction with "necessary" self-reading dosimeters, do emergency workers within the Susquehanna plume exposure pathway EPZ require TLDs in order to provide reasonable assurance that adequate protective measures to control radiological exposure are being taken?

RESPONSE

10. Emergency workers are not explicitly required to wear TLDs in conjunction with self-reading dosimeters, however, there must be a method or system for determining and recording the accrued, or integrated, dose for each emergency worker. A TLD, film badge system or an adequate administrative system to control the use and issuance of the self-reading dosimeters and to record total exposure would provide reasonable means for developing an accurate and permanent record of whole body gamma radiation exposure for emergency workers.

QUESTION

11. Has Regulatory Guide 8.4, "Direct-Reading and Indirect-Reading Pocket Dosimeters," p. 8.4-2 note 3 (February 26, 1973) been superseded? Does the guidance provided in note 3 still represent the staff's recommendation?

RESPONSE

12. Regulatory Guide 8.4, "Direct-Reading and Indirect Reading Pocket Dosimeters", dated February 26, 1973, has not been superseded. Regulatory Guide 8.4 (including note 3*) applies to employees of the licensee involved in routine occupational exposure to radiation and contains guidance on performance standards and testing intervals for personnel monitoring dosimeters. Regulatory Guide 8.4 does not contain guidance or staff recommendations

for offsite emergency workers. The standards applicable to personnel dosimeters for onsite radiation workers, including precision of measurement, are not necessarily applicable to dosimeters for offsite emergency workers in view of the sensitivity of the dosimeters typically worn by radiation workers and the anticipated one-time only exposure for offsite emergency workers.

*Note 3 states that "dosimeters should be worn in pairs when used as the primary method of personnel monitoring required by the regulations."

QUESTION

13. In the staff's view, what status should NRC adjudicatory boards accord FEMA-REP-2, "Guidance on Offsite Emergency Radiation Measurement Systems, Phase 1 - Airborne Release" (September 1980)?

RESPONSE

14. FEMA-REP-2, "Guidance on Offsite Emergency Radiation Measurement System, Phase 1 - Airborne Systems," dated September 1980, contains guidance for State and local organizations on the establishment of emergency radiation detection and measurement system, including emergency worker exposure monitoring, for measurement of an airborne release during a nuclear incident. This document was developed by an interagency task force in which NRC participated. The information from these offsite systems is intended to supplement the radiological information derived from the nuclear facility's measurement systems in order to fully implement protective actions

and subsequent recovery efforts. The staff considers the guidance in FEMA-REP-2 to represent an acceptable means for developing offsite radiation measurement systems to meet the requirements of the regulations on emergency planning (10 CFR 50.47 and 10 CFR 50, Appendix E) and the planning standards of NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Readiness in Support of Nuclear Power Plants," and to be similar in status to a regulatory guide. Methods and systems for offsite emergency radiation measurement which differ from those in FEMA-REP-2 may also be acceptable.

QUESTION

15. What number and what type of self-reading dosimeters are actually available for predistribution for each emergency worker within the plume exposure pathway EPZ at (i) Peach Bottom; (ii) Beaver Valley; and (iii) Three Mile Island?

RESPONSE

16. We understand that the number and type of self-reading dosimeters available for distribution to County and local emergency workers within the plume exposure pathway EPZ (Pennsylvania Counties only) at Susquehanna, Peach Bottom, Beaver Valley and Three Mile Island are as follows:

| | CD V-730 (20R) | CD V-740 (100R) | CD V-742 (200R) |
|---|---|---|---|
| Susquehanna | 0 | - | 1934 |
| Peach Bottom* | 721 | - | 1169 |
| Beaver Valley | 0 | 1000 | 4626 |
| Three Mile Island | 3934 | - | 4031 |

*Two counties within Peach Bottom plume exposure pathway EPZ are also within TMI plume exposure pathway EPZ.

The above information was obtained by telephone from a representative of FEMA Region 3. A poll of the above licensees indicated that licensees do not stock self-reading dosimeters onsite for distribution to offsite emergency workers in the event of an emergency.

QUESTION

17. Assuming that each emergency worker in the Susquehanna plume exposure pathway EPA must wear both a low and high range self-reading dosimeter in order to be provided reasonable assurance against undue radiological exposure, what basis, if any, exists for permitting the plant to operate above 5% power before adequate numbers of both types of self-reading dosimeters are available for distribution to emergency workers?

RESPONSE

18. Whether or not each emergency worker in the Susquehanna plume exposure pathway EPZ must wear both a lower range and a high range self-reading dosimeter, operation above 5% of rated power may be permitted before adequate numbers of both types of dosimeters are available provided any of the options described in paragraph 8 above are met. The available supply of lower range self-reading dosimeters (see paragraph 16) within the State could be redistributed to ensure an adequate number for emergency workers within the Susquehanna plume exposure pathway EPZ.

In view of the low likelihood of an accident requiring use of such dosimeters, the staff believes that consideration could be given to allowing interim operation for a few months with only high range dosimeters.

We hereby certify that the above statements and opinions given are true and correct to the best of our personal knowledge and belief.

Falk Kantor

Edward F. Williams, Jr.

Brian K. Grimes

Subscribed and sworn to before me, Falk Kantor and Brian K. Grimes this 8th day of September, 1982.

Notary Public
My Commission Expires: July 1, 1986

# Federal Emergency Management Agency

Washington, D.C. 20472

AUG 21 1982

MEMORANDUM FOR: Walter P. Pierson
Chief
Natural and Technological Hazards Division
Region III (Philadelphia)

FROM: Richard W. Krimm
Assistant Associate Director
Office of Natural and Technological Hazards

SUBJECT: Request by the Commonwealth of Pennsylvania for Radiological Emergency Preparedness (REP) Dosimetry Equipment Assistance and Guidance on FEMA-REP-2.

This is in reply to your memorandum, subject as above.

Federal Emergency Management Agency (FEMA) Headquarters recognizes the acute shortage of CDV-730 dosimeters in a number of the States for use in supporting the REP program. Based upon a recent survey of all States by the Emergency Management Programs Office, there are no known surplus CDV-730's in any State. Also, FEMA has no plans to procure additional quantities for either Civil Defense or REP.

It is important to note that the CDV-742 dosimeter is recommended for use in conjunction with the CDV-730 dosimeters in order to provide a redundant self-reading capability and an adequate read-out range extending above the emergency worker PAG's for whole body gamma radiation exposure. The CDV-742 dosimeter can be substituted for the CDV-730 dosimeter where there are shortages. The primary advantage of the CDV-730 dosimeter is that a more accurate reading can be made for low exposures. However, if the dosimeter is assigned to an individual and remains with him throughout the duration of the emergency, then the CDV-742 is adequate for a self-reading dosimetric device. We note that the State of Pennsylvania has an inventory of 112,872 CDV-742 dosimeters. The quantity in the State appears to be more than sufficient so that the number required to meet the REP requirements should be available within the State.

In developing radiation measurement and dosimetry systems, FEMA-REP-2 guidance encouraged States to use existing instrumentation and resources wherever possible. This document also indicated that the higher radiation levels are of more concern. Therefore, the use of two CDV-742's, if necessary, is a very logical choice to provide instrumentation for the potentially higher exposures that emergency workers could possible accrue. However, the CDV-742 can be accurately read in the dose range far below the maximum emergency worker PAG. FEMA Headquarters concurs with the Regional position that self reading dosimetry devices should be distributed, at least to county and or local levels. This is considered essential so that rapid final distribution to individual emergency workers can be made in a timely manner.

Thermoluminescent dosimeters (TLD) have not and will not be made available by FEMA for State and local use. The Interagency Taskforce on Offsite Emergency Instrumentation for Nuclear Incidents, in examining the requirements for dosimetry, recommend a TLD system over other measurement systems such as film badges, for administrative documentation of each individuals exposure to radiation. Film badge dosimeters may serve as a substitute for thermoluminescent dosimeters, assuming film badge services including calibration and reading can be satisfactorily provided. The self-reading dosimeters were recommended so that individuals could keep track, on a current basis, as their radiation exposure was being received. The discussion regarding the need for non-self-reading devices for documentation is found on pages 5-8 and 5-9 of FEMA-REP-2. The TLD permanent record devices were recommended on page 7-5 as the preferable means for exposure record documentation for all emergency workers. FEMA still considers this a highly desirable procedure and will continue to recommend it.

Although the FEMA-REP-2 document dated September 1980 entitled, "Guidance on offsite Emergency Radiation Measurement Systems, Phase I, Airborne Release" is being considered for revision, primarily in terms of updating available information regarding plume airborne radioiodine monitoring methods, this document is considered to be FEMA guidance in the area of personnel dosimetry.

In summary we wish to emphasize that it is not FEMA policy to procure and grant emergency instrumentation to the States for use in REP. However, where instrumentation exists for civil defense purposes, it may be used also for REP providing its availability for Civil Defense is not adversely affected.

FALK KANTOR
EMERGENCY PREPAREDNESS LICENSING BRANCH
DIVISION OF EMERGENCY PREPAREDNESS
OFFICE OF INSPECTION AND ENFORCEMENT

# PROFESSIONAL QUALIFICATIONS

I am employed as an Emergency Preparedness Analyst in the Emergency Preparedness Licensing Branch, Division of Emergency Preparedness, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission. I have responsibility for the review and evaluation of radiological emergency plans submitted by reactor applicants and licensees to assure proposed plans meet the regulatory requirements and guidance of the Commission. I also function as a Team Leader and Team Member on Emergency Preparedness Teams engaged in the onsite inspections of the implementation phase of licensee emergency programs. I observe nuclear power plant emergency drills and exercises involving State and local government response agencies and participate in interagency critiques.

I received a BS degree in Industrial Engineering in 1958 from the Pennsylvania State University. Upon graduation I entered the U.S. Air Force where I attended the Basic Meteorology Program at St. Louis University in St. Louis, Missouri. Following the completion of this program in 1959, I served as a weather officer in the U.S. Air Force.

In 1963, I began employment with the Westinghouse Electric Corporation at the Bettis Atomic Power Laboratory in Pittsburgh, Pennsylvania. My duties included the design of radiation shielding for nuclear power reactors for both landbased and shipboard applicants. I participated in field tests at Federal reactor facilities to evaluate the effectiveness of shield design features on operating reactors.

I entered graduate school in 1967 at the University of Pittsburgh on a U.S. Public Health Service Fellowship and received a MS degree in 1968 in Radiation Health (Health Physics). Following graduation I was employed by the NUS Corporation in Rockville, Maryland, an engineering and environmental consulting organization. At NUS I was involved in the environmental aspects of siting both nuclear and fossil power plants.

I have been a member of the NRC (AEC) Staff since January 1973. From that time until June 1980 I held the position of Site Analyst in the Accident Analysis Branch. My duties included the review and evaluation of the radiological consequences of postulated design basis accidents, the effectiveness of proposed engineered safety features, the population density and growth characteristics in the site environs, and the possible adverse effects on plant safety of nearby industrial, transportation and military facilities. From September 1980 until March 1981 I was a member of the NRC's onsite technical support section at the Three Mile Island facility. I have participated in the detailed review of over thirty nuclear power plant sites with the primary objective being to ensure public health and safety through the application of Commission regulatory requirements and guidance on reactor siting. I have presented testimony on siting and emergency preparedness issues at public hearings on licensing of nuclear facilities and appeared before the Advisory Committee on Reactor Safeguards.

In addition to my formal education, I have attended training courses sponsored by the NRC on reactor systems and operation and emergency preparedness. In May of 1979 I attended the course titled "Planning for Nuclear Emergencies" at Harvard University and in September 1980 I participated in the Radiological Emergency Response Operations Training course at the Nevada Test Site.

I am a professional member of the Health Physics Society and the American Meteorological Society. I am a member of the Air National Guard and hold a current certification from the U.S. Air Force as a weather forecaster.

EDWARD F. WILLIAMS, JR.

INCIDENT RESPONSE AND DEVELOPMENT BRANCH

DIVISION OF EMERGENCY PREPAREDNESS

OFFICE OF INSPECTION AND ENFORCEMENT

## PROFESSIONAL QUALIFICATIONS

I am employed as a Reactor Safety Engineer in the Incident Response and Development Branch, Division of Emergency Preparedness, Office of Inspection and Enforcement, U. S. Nuclear Regulatory Commission. I have responsibility for the review and evaluation of conceptual designs of Emergency Response Facilities for nuclear power plants submitted by applicants and licensees to ensure that they meet the requirements and guidance of the Commission. I also develop guidance on the design and application of radiological instrumentation for emergency preparedness and the use of potassium iodide for thyroidal blocking in the event of large accidental airborne release of radioiodine. I have been involved in final development and coordination of NUREG-0696 "Functional Criteria for Emergency Response Facilities". I have engaged in the onsite inspections of the implementation phase of licensee emergency programs. I observe nuclear power plant emergency drills and exercises involving State and local government response agencies and participate in interagency critiques. I am presently developing inspection and evaluation procedures for performing onsite post implementation reviews of Emergency Response Facilities. I represent the NRC on two interagency subcommittees of the Federal Radiological Preparedness Coordinating Committee; the subcommittee on Offsite Emergency Instrumentation and the subcommittee on Potassium Iodide and Mechanical Respiratory Protection.

I also represent the United States as a member of the International Atomic Energy Agency Advisory Group on Handbook for Assessing Off-Site Consequences of an Accident in a Nuclear Facility: Techniques and Decision Making. I also represent the NRC on American Nuclear Society Work Group 3.8.2 Criteria for the Development of Emergency Response Facilities and Equipment.

I received a B.A. degree in Biochemistry in 1956 from Bucknell University. After graduation I served in the U. S. Army as enlisted specialist personnel assigned as a health physics technician to the Health Physics Office of the U. S. Army Chemical Center, Maryland which had a large byproduct and special material research program. In 1957 I was sent to the Taft Sanitary Engineering Center for four weeks of training in health physics. At the completion of my active duty assignment, I was hired as a civilian employee at Army Chemical Center in the position of Assistant Chief of the Health Physics Office.

In 1960 I was employed as a shift health physicist by the National Aeronautics and Space Administration at the Plum Brook Reactor Facility in Sandusky, Ohio. In 1961 I began employment with the Office of Civil and Defense Mobilization as a staff health physicist and as a project officer on the procurement of radiological instrumentation and equipment for civil defense use. I also served as the agency Radiological Safety Officer on their byproduct and source material licenses.

In 1966 I was employed by the U. S. Army Communications Command as the Chief, RADEF Instrumentation Test Facility in support of the Defense Civil Preparedness Agency (DCPA) radiological instrumentation and equipment program. This Facility

provided engineering development, design, test and evaluation support of radiological instrumentation and equipment not only for DCPA; but also had support contracts for development and testing of radiological instrumentation with U. S. Naval Electronics Systems Command, U. S. Army Electronics Command and the National Aeronautics and Space Administration. I directed the staff of this facility and participated in the development of a direct reading dosimeter constructed of thermoplastics which was awarded U. S. Patent 4,306,154, Williams Jr. et al for its unique design. In 1974 I was assigned to represent DCPA on the interagency task force that developed FEMA-REP-2, Guidance on Offsite Emergency Radiation Measurement Systems and served as chairman of the task force from 1978 until 1980.

In 1975 I was assigned to the interagency working group which developed and taught the Management of Radiation Accidents Course.

Since October 1980 I have been a member of the NRC staff in my present position described above.

In addition to my formal education, I have attended training courses on emergency preparedness and reactor operating systems including the Radiological Emergency Response Operations Course at Nevada Test Site and the BWR and PWR Technology Courses at the NRC Reactor Training Center.

I am a professional member of the Health Physics Society, the American Nuclear Society and the Institute of Electrical and Electronics Engineers.

BRIAN K. GRIMES

PROFESSIONAL QUALIFICATIONS

OFFICE OF INSPECTION AND ENFORCEMENT

I am employed as Director, Division of Emergency Preparedness, Office of Inspection and Enforcement, U. S. Nuclear Regulatory Commission, Washington, D. C. I am also the NRC Cochairman on the joint NRC/Federal Emergency Management Agency (FEMA) Steering Committee for Emergency Preparedness. Responsibilities under my current assignments include directing the activities of personnel in the review of emergency plans for operating power reactors, operating licenses and construction permits and coordinating NRC and FEMA efforts in the review of emergency preparedness at and around nuclear power plant sites; assuring that the NRC's Operations Center is staffed, trained, and ready to respond promptly and effectively to actual or simulated emergencies, directing the NRC's inspection program to ensure NRC licensees are maintaining in effect emergency plans that there is no degradation in their ability to respond to emergencies.

I attended the University of Washington, Seattle, Washington, and received a BS degree in Chemical Engineering in 1962 and a MS degree in Nuclear Engineering in 1964. While completing my graduate work, I was employed as a research assistant at the University of Washington Engineering Experiment Station; my duties involved performing analytical and experimental work on the University of Washington research reactor.

In 1963, I accepted employment with the Division of Reactor Licensing, USAEC. My first assignment involved attendance at the International Institute for

Nuclear Science and Engineering at Argonne National Laboratory for four months. Upon completion of this course, I was assigned as a Nuclear Engineer in the Division of Reactor Licensing. My initial duties included primary responsibility for the continuing review of the nuclear safety aspects of various research reactors. I subsequently participated in the safety evaluation of a number of construction permit applications for both pressurized and boiling water power reactors.

Later, as a Reactor Project Engineer in the Division of Reactor Licensing, I had primary responsibility for the safety review of the construction permit application for the Commonwealth Edison Company's Quad-Cities Units 1 and 2, for the Duke Power Company's Oconee Nuclear Station Units 1, 2 and 3, for the Metropolitan Edison Company's Three Mile Island Nuclear Station Unit 1, and for the Indiana & Michigan Electric Company's Donald C. Cook Nuclear Plant Units 1 and 2. I was assigned to the position of Technical Coordinator for Reactor Projects in October, 1968. Prior to March, 1970, I served as Technical Coordinator for both pressurized and boiling water reactors. After March, 1970, as Technical Coordinator for Boiling Water Reactors, my responsibilities included coordinating the technical aspects of all safety reviews in the Boiling Water Reactor group, providing liaison with the pressurized water reactor group and serving as administrative assistant to the Assistant Director for Boiling Water Reactors.

I was assigned to the position of Chief of the Radiological Safety Branch, Division of Reactor Licensing in July, 1971, in which position I was responsible for the review of systems necessary for the control and treatment of radioactivity

under normal and accident conditions. In January, 1972, the functions of this branch were divided and I was appointed Chief of the Accident Analysis Branch. My responsibilities as Chief of the Accident Analysis Branch included reviewing calculational models, procedures and methods developed by members of the Branch for both conservative assessment and a realistic assessment of the consequences of a spectrum of accidents for all nuclear power plants and reviewing analyses of all nuclear power reactor sites performed by members of the Branch with regard to site related hazards and compliance with the guidelines of 10 CFR Part 100. In January, 1976, I was assigned to the position of Chief of the Environmental Evaluation Branch in the newly formed Division of Operating Reactors. In this position my responsibilities included supervising the review of radiological and non-radiological impacts of operating nuclear power plants from both a safety and environmental standpoint. Branch review areas included accident analyses, site-related hazards, effluent treatment systems, off-site radiological effects, and thermal and chemical effluents.

On April 1, 1978 I was appointed Assistant Director for Engineering and Projects in the Division of Operating Reactors. In this position my responsibilities included managing the activities of the Engineering Branch, the Environmental Evaluation Branch, Operating Reactors Project Branch No. 3, Operating Reactors Project Branch No. 4 and the Standard Technical Specification Group. On June 25, 1979, I was assigned Acting Assistant Director for Systems Engineering in the Division of Operating Reactors, and managed the Plant Systems Branch and the Reactor Safety Branch. On October 25, 1979, I was designated Director of the Emergency Preparedness Task Group reporting to the Director of the

Office of Nuclear Reactor Regulation. In November, 1980, all reactor emergency preparedness review activities were combined with NRC response activities in the new Division of Emergency Preparedness in the Office of Inspection and Enforcement and I was appointed Director of that Division. In this position, I supervise the Emergency Preparedness Licensing Branch, Emergency Preparedness Development Branch and the Incident Response Branch.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

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| In the Matter of | ) | |
| | ) | |
| PENNSYLVANIA POWER AND LIGHT CO. | ) | Docket No. 50-387 OL |
| ALLEGHENY ELECTRIC COOPERATIVE, INC. | ) | 50-388 OL |
| | ) | |
| (Susquehanna Steam Electric Station, Units 1 and 2) | ) | |

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S RESPONSE TO APPEAL BOARD'S ORDER OF AUGUST 20, 1982" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk, by deposit in the Nuclear Regulatory Commission's internal mail system, or, as indicated by double asterisks, by hand delivery, this 9th day of September, 1982:

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Washington, DC 20555

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