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POLICY ISSUE

July 19, 1982

(Notation Vote)

SECY-82-302

MEMORANDUM FOR:

Chairman Palladino Commissioner Silinsky Commissioner Ahearne Commissioner Roberts Commissioner Asselstine

FROM:

Cayron

SUBJECT:

APPOINTMENT OF ACRS MEMBERS

PURPOSE:

To recommend Commission appointment of a new member to fill the forthcoming vacancy on the ACRS which will result when Mr. William Mathis leaves the Committee on July 31, 1982.

DISCUSSION:

On April 2, 1982, the NRC invited members of the public to submit nominations for individuals to be considered for appointment to the ACRS. The press release was called to the attention of a number of scientific and technical organizations as well as members of the public and addressed the need for a member with experience in one or more of the following fields.

- The design, construction, or operation of large. complex facilities and/c - surveillance-monitoring programs
- High pressure/high temperature systems or equipment
- Nuclear power plant operations including the management of an operating organization and/or the training/maintenance and operational support of reactor facilities.

It or mation in this record was deleted Act, exemptions 576 FOIA. 92-436

The current nominee and twenty-five other individuals were considered. Candidates were primarily from the in accordance with the freedom of information 11 for nominations, although several other individwals were also considered (e.g., several ACRS consultants were considered). Based on its review, the Committee recommends, following individuals:

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Mr. Frank C. Fogerty

Mountain States Energy

Mr. Fogerty has reactor operating experience both in the Naval nuclear program and at the Idaho National Engineering Laboratory. He served in various engineering and nuclear capacities on several nuclear powered submarines, including the Nautilus, Seawolf and Skipjack from 1955 to 1967. Mr. Fogerty was reactor control and main propulsion division officer of the Seawolf which was the first nuclear powered submarine to make use of a sodium cooled reactor with an intermediate neutron spectrum. He held various positions on the Nautilus and other nuclear powered submarines and was Commanding Officer of the Nautilus from 1963 to 1967. He completed his career in the Navy in the Office of the Chief of Naval Operations with responsibility for all R&D, installation and operational acceptance of systems and equipment for naval submarines. At the Idaho National Engineering Laboratory, he gained, in conjunction with his assignments relative to the management and operation of large test reactors (ETR and ATR), a knowledge of the operational and other problems concerning commercial nuclear power reactors and the needed research regarding their design and operation. During the last three years, he has served as President and Chairman of the Board of Mountain States Energy, where he has gained further operational and management experience in the operation of an experimental MHD coal fired facility for DOE.

Mr. Neil O. Strand

Strand and Associates

Mr. Strand has thirty years experience in the power industry. During the period 1952-1967, he worked at the General Electric Company Hanford Operation in a variety of positions. These included assignments involving research and development for power plant application. He served as manager in charge of planning for and construction of the equipment necessary to utilize byproduct steam from the N-reactor to run a 860 MWe generating station. He served as resident manager for construction at the Oyster Creek 1 reactor project through the fuel loading stage. He subsequently worked for the Washington Public Power Supply System from 1971 to 1980. During the last three years there, he was Managing Director/Chief Executive Officer and was responsible for a construction program involving five large electric generating stations.

Mr. Franklin T. Binford

ORNL

Mr. Binford has served on the staff at Dak Ridge National Laboratory since 1948. His responsibilities there have included the design, operation and technical support for a number of reactors and other facilities including those for radioisotope production and radioactive waste disposal. He is currently Head of the Technical Section of the Operations Division and is responsible for providing the technical support required for the six reactors operated by the Division.

Mr. Binford has been a member of the American Nuclear Society Standards Committee for the past 10 years. From 1971 to 1974, he was a member of the Industrial and Professional Advisory Council to the College of Engineering, Penn State University. He served as Chairman of the Nuclear Engineering Group in 1973 and was Chairman of the Council in 1974.

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Further biographical information concerning the above nominees is included in Attachment 1. The ACRS Staff has conducted reference checks on the first two persons and selected ACRS members have met with and discussed the particular areas in which they could contribute to ACRS activities. Mr. Binford is a consultant to the Committee and is well known by a number of Committee Members.

RECOMMENDATION:

That the Commission appoint one of the three individuals listed to the Committee for a four-year term to begin as soon as practicable after August 1, 1982. A proposed letter confirming appointment is included as Attachment 2.

COORDINATION:

Each of the three individuals listed above has indicated that he would be available to accept appointment to the Committee. The Office of the General Counsel has reviewed the financial interests of the above and has no objection to any one of the three being appointed.

SUNSHINE ACT:

It is recommended that, if discussion of this paper is required, such discussion be held in closed session pursuant to Exemption 6 of the Government in the Sunshine Act. OGC concurs in this recommendation concerning the Government in the Sunshine Act.

Attachments:

1. Biographic sketches - Fogerty, Strand, Binford

2. Proposed Letter of Appointment

Commissioners' comments should be provided directly to the Office of the Secretary by c.o.b. July 30, 1982

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT <u>July 23, 1982</u>, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

DISTRIBUTION:
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DELD
ACRS
Secretariat

BIOGRAPHICAL INFORMATION

FRANK C. FOGARTY

Twenty-eight years experience in managing major facility systems and divisions in the fields of nuclear and fossil energy.

PROFESSIONAL EXPERIENCE

1979 to Present President of Mountain States Energy (MSE) and its subsidiary Mountain States Energy Alaska (MSEA), and General Manager of the Component Development and Integration Facility in Butte, Montana. Directs the overall operation of the CDIF, a \$70 million coal component development test facility, which currently operates under contract to the U.S. Department of Energy. Responsible for directing the organization, which employs 120 people with an annual budget of \$9.5 million, to ensure all operations are safely conducted within the contract and guidelines, on schedule, and within budgetary limits. Responsible for all corporate activities and is Chairman of the Board of Directors. MSE/MSEA is a private for profit corporation and is also engaged in providing engineering and quality assurance services and technical analysis work for private industry and the state of Montana.

- 1970
- Division Manager at EG&G, the operating contractor for the Idaho
- to National Engineering Laboratory, in Idaho Falls, Idaho.
- Manager of each of two major nuclear test reactors until 1975 then promoted to Divison Manager of the Test Reactor Area, which is a multiplant facility for experiment and research in the nuclear power field. The facility had an annual budget of \$35 million with approximately 400 personnel.
- Head of the Requirements and Readiness Branch of the Submarine Warfare to Division for the Chief of Naval Operations, U.S. Navy, Office of the Chief of Naval Operations in Washington, D.C. Responsible as Program
- Manager for all research and development and installation and operational acceptance of systems and equipment destined for naval submarine application.
- 1963 Commanding Officer of USS Nautilus, U.S. Navy, Fleet Post Office, New to York, New York. Responsible to the Commander Submarine Force, U.S.
- 1957 Atlantic Fleet for the ship, crew, and all operations of the nation's first nuclear powered submarine.
- Served in engineering and executive officer positions on land based to prototype and commissioning crews of two other nuclear attack submarines and one ballistic missile nuclear submarine. Participated in numerous technically and historically important events including the first arctic polar ice cap trip on Nautilus. Awarded Meritorious Service Medal and Presidential Unit Citation.

EDUCATION

- M.S. in administration, George Washington University, 1970.
- B.S. in engineering, U.S. Naval Academy, 1948.

F.C. FOGARTY

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ADDITIONAL RESUME INFORMATION

NAVAL NUCLEAR SERVICE

7/53 - 6/55 Submarine Intermediate Reactor (SIR)

One of first four naval officers selected for education, training, design and construction review, start-up and operation of the sodium cooled reactor prototype for the propulsion of the Navy's submarine Seawolf. Received reactor engineering education at Union College, N.Y., trained the operating crew and operated the plant for about one year working with General Electric Knolls Atomic Power Laboratory personnel.

7/55 - 5/57 SEAWOLF

As reactor control and main propulsion division officer supervised training and start-up of the shipboard SIR plant through sea trials and initial operating period.

6/57 - 6/58 NAUTILUS

As main propulsion officer supervised first refueling and subsequent operation of this PNR plant including first Arctic polar and first Pacific Ocean (Fanama Canal) operations.

7/58 - 9/61 SKIPJACK

As Engineer Officer of this first PWR-SEW reactor engineering plant supervised design and mock-up review, operations training, start-up and initial operation before taking position of Executive Officer.

10/61 - 5/63 JOHN MARSHALL

As Executive Officer of the commissioning crew of this nuclear powered missile submarine had overall responsibility for crew training during construction, start-up and first patrol periods.

6/63 - 9/63

Division of Reactor Development

Training and staff assignment under ADM Rickover prior to assuming Commanding Officer duties.

10/63 - 4/67

NAUTILUS

As Commanding Officer had prime responsibility for the ship and it's personnel during a major overhaul, refueling and operating period.

5/67 - 9/70

Chief of Naval Operations - Submarine Warfare Division (OP-31)

Responsible, under the Director, for engineering and project aspects of the Navy's nuclear submarines including coordination on reactor propulsion plant matters with ADM Rickover's Office.

CIVILIAN NUCLEAR EXPERIENCE

10/70 - 10/22

Technical Assistant to Division Manager and Manager of the Engineering Test Reactor (ETR)

A 175 MW enriched U-235 pressurized water thermal neutron test reactor with multi-loop lood and capsule positions. Frime purpose was to do research irradiations in support of DOE. DOD and commerical programs. Major work was accomplished in designing, installing, testing and operating a sodium loop and supporting systems for LMFBR safety tests up to and including fuel failure.

11/72 - 4/75

"Hunager of Advanced Test Reactor (ATR)

A four lobe multi-flux trap, 250 MW enriched U-235 pressurized water thermal neutron test reactor with nine loop positions and numerous lead and capsule positions. Prime purpose was to do research irradiations in support of the Navy nuclear propulsion program on a 24 hour. 7 day/week minimum down time schedule and to modify, test or activate facility and test systems to provide new and more versatile, safe and reliable operations.

5/75 - 4/79 Division Manager of the Test Reactor Area (TRA) at INEL

TRA is a 60 acre DOE site which houses two active test reactors. two critical facilities, numerous radioactive research laboratories and equipment, and supporting maintenance. utility and waste systems. Overall responsibility for safe and efficient operation and upgrade of this site and its equipment, personnel training, nuclear materials handling and safeguards, emergency action plans and training, schedules and costs.

OTHER RELATED EXPERIENCE AND PUBLICATIONS

As Engineer Officer of Skipjack set up a nuclear engineering department organization and wrote a standard manual that became the basis for all nuclear submarine organizations.

As Technical Assistant to Division Manager at the TRA authored a re-organization plan and key policies and procedures in the plan to effect a more structured and controlled reactor plant organization and operation.

for pressurized water and sodium cooled reactor plants, test reactors, and reactor experiments authored numerous operational, emergency action and training manuals or sections of manuals and reports (Safety Analysis Reports, Hazard Analysis Reports, System Design Descriptions, Operating Manuals).

Chained and served on numerous accident investigation, personnel qualification, operational readiness, and management and operational audit boards in connection with reactor operations and associated research experiments and support facilities.

Made presentations and gave papers on reactor and experiment operations, management, operational safety and quality assurance at numerous meetings, conferences, and seminars.

ORGANIZATIONS.

American Nuclear Society Eastern Idaho ANS American Management Association MID Industrial Forum

Rotary Club Signa Chi Fraternity

BUSINESS ADDRESS

HOME ADDRESS

Strand & Associates
303 North 20th Avenue, Suite B
Pasco, Washington 99301
Tel. (509) 545-8268

EXPERIENCE SUMMARY

Mr. Neil O. Strand has thirty years experience in the power industry and has represented both the owner/operator and the designer/contractor. He is a graduate of Washington State University with a degree in mechanical engineering and is a licensed professional engineer. He completed extensive post graduate studies in management and business administration. His experience includes management positions in finance, administration, engineering, construction and generation.

Neil Strand served as chief executive officer of the largest joint action agency in the country with more than 100 participating electric utilities. He was resident construction manager for a commercial nuclear power plant through fuel loading and worked on design and engineering, construction, testing or operation of more than 20 power plants including nuclear, coal, hydro and oil-fired.

Neil Strand has a strong technical and business/financial background. He has many years of hands-on experience in both mechanical and electrical engineering. His earlier years with the General Electric Company provided a knowledge of electrical generation and distribution equipment. In recent years with the Washington Public Power Supply System he gained experience in most all phases of the electric utility business.

PERSONAL DATA

Date of Birth

Education BSM: 1952 Washington State University
Gen Elec. School of Muclear Engineering

Registration Professional Engineer, Wash. No. 7106

and New Jersey No. 16033

Member American Society of Mechanical Engineers

American Nuclear Society

EMPLOYMENT HISTORY

STRAND & ASSOCIATES (present employment)

 Organized and is managing Strand & Associates, a professional consulting firm, specializing in the power industry.

(Continued)

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM (nine years)

- Three years (1977-1980) as Managing Director/Chief Executive Officer. Was responsible for overall direction of programs for financing, construction, and operating electric generating facilities sponsored by more than 100 participating electric utilities in seven pacific northwest states. The construction program included five large electric generating plants with a total estimated cost of \$15 billion. Operating facilities included hydro and nuclear stations. Was responsible for the achievement of corporate objectives and goals established by the Board of Directors and for developing and managing a staff of over 2.000 persons at headquarters and branch offices, and over 400 contractors employing 10,000 workers at five construction sites.
- Six years (1971-1977) in rotation as executive manager of finance, engineering, construction, and generation. Was responsible to the Chief Executive Officer for planning and organizing these major components to serve present and future needs. This was a period of rapid expansion when the Supply System undertook the challange of financing and constructing five nuclear power plants at one time.

GENERAL ELECTRIC COMPANY (nineteen years)

- Two years (1969-1971) as principal design engineer at the General Electric Company Nuclear Energy Division Headquarters in San Jose, California. Organized and managed planning and design efforts to develop methods, procedures, and tooling to enter and make post start up repairs on nuclear reactor vessels.
- Two years (1967-1969) was resident manager for construction of the Oyster Creek turn-key nuclear power plant through fuel loading.
- * Fifteen years (1952-1967) at the General Electric Company Hanford Operation. Was manager in charge of planning and construction for tie-in of the 860 MWe Hanford Generating Project which received by-product steam from the Department of Energy N-Reactor. Was in responsible charge of design, procurement, and erection of piping and pressure vessels for N-Reactor. Was responsible for planning and construction of a semi-works test facility designed for development and test of power plant materials and equipment. Worked on test planning and testing of power plant equipment and systems including water treatment plants and oil and coal boilers. Was in charge of numerous research and development projects involving materials and equipment for power plant applications. Was in charge of facilities engineering and for maintenance of test and experimental equipment.

Franklin T. Binford Relevant Experience and Background

1. Experience with Reactor Design and Construction

From about 1953 through 1965, I was the principal Operations Division member assigned to the design team responsible for the design and construction of first the Oak Ridge Research Reactor (ORR) and then the High Flux Isotope Reactor (HFIR).

I was responsible for the nuclear physics calculations for the ORR, for the containment design, and for developing the safety analyses of all the reactor systems as they were designed. This last included both calculations and experimental work to determine the thermal-hydraulic parameters of the cooling system, including the onset of nucleate boiling and the departure from nucleate boiling margin. Upon completion of the ORR, I was heavily involved in the initial start-up and testing of that reactor, including both the development and performance of tests to determine its operating characteristics. Among these was the first flux trap experiment done in the United States, the results of which were important in the design of the HFIR. Another was the first deliberate attempt to boil a research reactor in order to verify the DNB.

In 1960, following the melting accident in the Westinghouse Testing Reactor, I was asked to assist in the analysis of the causes of that accident and participated in the investigation. During the design and construction of the HFIR, my chief responsibility was to develop the safety analysis of each of the systems and components as the design proceeded, to provide feedback to the designers as the project progressed, and to produce the final safety analysis report. I was also responsible for the containment design. Following completion of the HFIR, I participated in the start-up and initial testing.

2. Experience with Reactor Operation

The Operations Division at ORNL is currently responsible for the operation of six resctors: the HFIR, ORR, BSR (Bulk Shielding Reactor), PCF (Pool Critical Facility), TSF (Tower Shielding Facility), and HPRR (Health Physics Research Reactor). As Read of the Technical Section, my responsibilities include providing technical support for all of these, although the first four require the

most attention. This includes analysis and approval of changes in design and operating procedures. I have oversight responsibility for the preparation of safety analyses and technical specifications for all of these facilities, and must defend them before both our internal safety committees and the relevant branches of the Department of Energy.

The Technical Section also functions to develop and implement plans and designs to improve reactor operation both from the standpoint of safety and efficiency of operation. Recently, as a result of review following the TMI incident, we have identified one or two weaknesses in the cooling systems of some of our reactors and are implementing design and procedure changes to eliminate them.

The research reactors at DRNL are operated for the sole purpose of providing neutrons to experimenters in the physical and life sciences. Thus, one of our most important tasks is to assist in the design, fabrication, installation, and operation of these experiments. Of primary importance is to determine the interaction between experiment and reactor and to ensure that such interaction will not compromise the safety of, or significantly impair the efficiency of, the operation. We are, therefore, required to participate in and carefully review the design of all experiments prior to their installation. In many cases it is necessary to devise and conduct in—core tests to verify the design calculations.

In order to accomplish the foregoing, it was necessary to an intimate knowledge of all phases of the reactor operation.

3. Experienc- with Operator Training and Licensing

Although not subject to NRC regulations, the ORNL Operations Division in 1964 adopted a formal certification procedure for reactor operators and established a comprehensive training program. Since that time we have maintained a strong interest in both reactor training and certification. For a number of years we have conducted training courses at the BSR to provide initial operating experience to students from several utilities and about a half dozen southeastern universities.

Periodically, ORNL sponsors a Symposium on the Training of Nuclear Facility Personnel. These symposiums, which are managed by members of the Technical Section, have been widely attended by both utility and government staff members with interests in this area. They are aimed at providing a forum for the wide dissemination of information concerning selection, training, and certification of operations personnel and have been quite successful.

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As a consequence of this interest, a group in the section has been established under an interagency arrangement between NRC and DOE to conduct NRC reactor operator license examinations at nuclear power plants. At present I have twelve people in this group.

4. Experience with Safety Analysis

As pointed out above, I had the responsibility of preparing the SARs for both ORR and HFIR and was also required to help to defend them before the ACRS. Recently it has become necessary to develop SARs for a number of the division's nuclear facilities, both reactor and nonreactor. Since 1970 I have participated in or developed the SARs for the BSR, the PCA, and the TSR. Nonreactor facility SARs for which I have had rimary res, insibility include the OR 1. Solid Waste System, the CRNL Liquid Waste System, the ORNL Baseous Waste System, and the ORNL Hydrofracture Facility.

The Technical Section has oversight responsibility for all of the Operations Division SAP efforts, as well as the establishment of Technical Specifications for the various operations. To facilitate this effort, we have recently had prepared a generic site document for ORNL. This document describes the site characeristics and contains all of the "ologies" and "ographies" required for the individual facility SARs. Approval of these documents by both internal ORNL safety committees and DOE is required, and one task is to resolve any conflicts and obtain these approvals. A more important one is to ensure that the SARs indeed reflect the true safety of the open.

A grod deal of experience in safety analysis methods was obtained during the five years in which I taught a course in Reactor Hazards Analysis at the Oak Ridge School of Reactor Technology (ORSORT). At that time the ORSORT curriculum was being conducted primarily for staff members of foreign governments and utilities in order to prepare them to enter the nuclear power area. The experience was most rewarding, not only because teaching is an excellent way to learn, but also because of the establishment of continuing relationships with peuple throughout the world, many of whom are now prominent in the nuclear industry.

5. Power Reactor Experience

Shortly after the Calvert Cliffs decision in 1971, some of the ational laboratories were asked to provide assistance to the AEC with respect to the preparation of environmental impact statements

for the large backlog of power plants that was in the licensing pipeline at that time. I became a member of the ORNL group assigned to this task. In the course of the work - which involved over 25 nuclear power plants - it was necessary to become tamiliar with the details of the plant designs and operating procedures. In a number of cases, site visits and inspections were procedure.

Although initially I was involved in all parts of projects, because of my previous experience with containment systems I eventually specialized in the area of gaseous fission product release and developed mathematical models of the release mechanisms from both PWRs and BWRs, which were combined with an atmospheric dispersion model and programmed for a computer. These models were subsequently used to estimate the atmospheric concentrations of radionuclides to be expected as a result of plant operation. They include specific provisions for partition coefficients between liquids and gases, decontamination factors in filters and adsorbers, and the behavior of cryogenic and other types of gas removal devices.

A few years after I left this project, NRC was faced with the problem of generating environmental assessments for a number of fuel fabrication plants and again asked ORNL to help. I agreed to assist the ORNL-EIS project with this and participated, primarily with respect to the consequences of potential criticality accidents.

6. Experience with Radionucli !- Behavior

The first reactors at ORVL were not contained; but when the ACRS reviewed the ORR (immediately after the Borax explosion), it was divided that containment would be required. Since construction was well along, we developed the idea of "confinement," which consists of controlled leakage through filters from a semiairtight building using pressure difference as a driving force. Other than the ORR, a number of small reactors including the HFIR have since used this concept.

In order to obtain acceptance of this concept, it was ner saary to do considerable work on determining the efficiency of charcoal adsorbers and MEPA filters and to learn a good bit about atmospheric dispersion in order to estimate the expected concentration of radionuclides in the atmosphere due to both normal and accident conditions. During the course of this work, we distovered the usemfulness of using iodated charcoal to trap both molecular iodine and organic iodides. In a separate effort for the AEC's Division of Reactor Development and Technology (DRDT), we experimented with the

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condensation of steam which contained radioactive iodine, condensing it in water to simulate a BWR pressure suppression system. We found that, as in the case of the TMI accident (though for perhaps different reasons), most of the iodine remains in the water.

Subsequently, I spent considerable time studying gaseous releases from power plants as mentioned above; and in 1977 I was asked to assist in a National Academy of Sciences study of the "Risks assist in a National Academy of Sciences study of the "Risks Associated with Nuclear Power." I prepared the section on "Atmospheric Transport of Radionuclides" for this document. "Atmospheric Transport of Radionuclides" for this document. Although a summary of the Academy study appeared in 1979, the entire text has not been published.

My early experience at ORNL involved the production and separation of radioisotopes, both fission products and neutron produced. I spent about three years in the area, thus gaining considerable experience with "hot" operations.

7. Experience in Waste Disposal and Transportation

ORNL has systems for the disposal of solid, liquid, and gaseous radioactive waste. All of these systems are operated by the ORNL Operations Division.

Solid waste is disposed of by shallow-land burial, with transuranics and fissile isotopes being given special treatment to provide retrievability and ensure against criticality.

Liquid waste is concentrated in evaporators, converted into grout, and disposed of in deep shale formations by hydrofracture.

Gaseous waste is passed through MEPA filters and charcoal adsorbers and is then discharged to the atmosphere through high stacks. Appropriate monitoring instrumentation is available to measure the rate of activity release.

The Technical Section provides support for these operations with respect to both design and operation and, as noted above, with respect to safety.

Several years ago, ATC's DRDT requested DRNL to undertake a study of the risks of transporting spent power reactor fuel by various modes. As a part of this study team, which involved the U.S. Department of Transportation as well, I had an opportunity to gain some knowledge of the problems and risks involved in such an enterprise. One interesting fact which came to light was of the known cases where

tank cars containing liquid chlorine ruptured, several occurred in Canada in the winter and were the result of brittle fracture, a situation of some interest today.

8. Other Relevant Technical Experience

Shortly after the TMI accident, the DOE Division of Defense Materials Production formed a series of committees to review their operations in the light of the lessons learned at TMI. I participated as a committee member in two of these reviews: one of the Savannah River Plant and the other of N-Reactor at HEW. The purpose of these reviews ves to examine in depth the suitability of operator training, the indequacy of the operating and emergency procedures, and the extent to which the plant management provided support to the operators, particularly with respect to emergency situations.

Subsequently, another committee, the Nuclear Facilities Personnal Qualification and Training Committee (NFPQT), was established by DOE to look into the indicated aspects of DOE operations. The charter of this committee was eventually expanded to include not only personnel and training but also the technical aspects of the operation. It was my lot to present the technical aspects of the ORNL operations to this committee and later to serve with the group designated by ORNL management to reply to their report.

In the past 12 years I have served as a member of the ORNL Criticality Review Committee, which is responsible for the oversight of criticality safety at ORNL.

9. Other Professional Experience

I am a Fellow and Charter Member of the American Nuclear Society and have been active in the Society since its beginning. I was a cofounder and twice chairman of the Reactor Operations Division and have served on numerous committees. These include the ANS Program Committee and Nominating Committee, the ROD Executive Committee, Program Committee, Honors and Awards Committee, and Nominating Committee. I have been a member of the ANS Standards Committee for the past ten years working primarily in the areas of safeguards and security and reactor operation. Presently I am also a member of the ANS Power Division.

From 1971 to 1974 I was a wember of the Industrial and Professional Advisory Council to the College of Engineering, Pennsylvania State University. I served as chairman of the Nuclear Engineering Group in 1973 and was chairman of the council in 1974. The purpose of this organization was to provide input to the faculty regarding the needs of industry with respect to engineering education.

10. Curriculum Vitse

Franklin T. Binford

Home Pl Office Phone (615) 576-1109 FTS 626-1109

Soc. Sec. No.

Security Clearance: Q

Education:

B.S., Science: Pennsylvania State University

1941, Chemistry

Grad. Study:

University of Tennessee

1950-53, Physics, Mathematics

Other:

Oak Ridg. School of Reactor Technology

(Nuclear Engineering)

Union Carbide Management Training

Course, 1975

U.S. Army ORD High Explosives

Technology, 1941

Personal Data:

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I have been informed of your willingness to serve as a member of the Advisory Committee on Reactor Safeguards. As you know, the ACRS advises the Commission on the safety of proposed or existing reactor facilities, the adequacy of proposed reactor safety standards, and such other duties as the Commission may request.

Although we will make an effort to minimize our demands on your time, we recognize that service on the Committee will entail some sacrifices on your part. We appreciate your willingness to give your time and energy to an effort which is so important to the further progress of the Nation's nuclear regulatory program.

Sincerely,

N. J. Palladino Chairman