

PDR



CHAIRMAN

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

November 15, 1990

Ms. Kelly Cunningham
Awards Coordinator
National Society of
Professional Engineers
1420 King Street
Alexandria, Virginia 22314-2715

Dear Ms. Cunningham:

I am pleased to nominate Guy A. Arlotto, Deputy Director of the Nuclear Regulatory Commission's (NRC's) Office of Nuclear Material Safety and Safeguards, for the 1991 Federal Engineer of the Year Award. Over a period of years, Mr. Arlotto has directed and participated in comprehensive engineering research programs to provide the technical basis for the development of regulations, codes, and standards for the nuclear power industry. Throughout his career, he has distinguished himself by his commitment to technical excellence and his dedication to NRC's primary responsibility of protecting the public health and safety. Mr. Arlotto is truly deserving of the honor this award confers.

Sincerely,

Kenneth M. Carr
Kenneth M. Carr

Enclosure:
Nomination Statement

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PDR COMMS NRCC
CORRESPONDENCE PDC

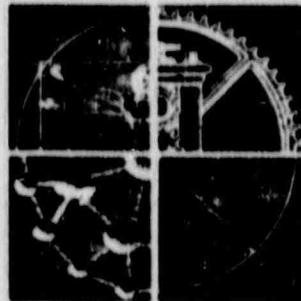
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NAME OF SUBMITTING AGENCY

U.S. NUCLEAR
REGULATORY COMMISSION

NOMINATOR: Kenneth M. Carr PHONE NUMBER: (301) 492-1759
TITLE: Chairman DATE: _____

Please return the original and THREE copies to: Kelly Cunningham, NSPE, 1420 King Street, Alexandria, Virginia 22314 no later than November 1, 1990.



**NATIONAL
ENGINEERS
WEEK**

Feb. 17-23, 1991

**The Federal Engineer of the Year Awards
Program is an Engineers Week activity
sponsored by the National Society of
Professional Engineers.**

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This section to be removed by NSPE prior to judging:

Please PRINT or TYPE name exactly as you wish it to appear on plaque.

NAME OF CANDIDATE: Guy A. Arlotto

HOME ADDRESS: 302 Sisson Street

Silver Spring, Maryland 20902

PHONE NUMBER: (301) 492-3326

NSPE AFFILIATION (if applicable): State _____ Chapter _____

NAME OF SUBMITTING AGENCY

U.S. NUCLEAR
REGULATORY COMMISSION

Please type or print all information

CANDIDATE INFORMATION

Job Title: Deputy Director, Office of Nuclear Material Safety and Safeguards
Work Location: USNRC Headquarters, Mail Stop OWFN 6A4, Washington, D.C. 20555
Number of engineers employed by entire agency/command 1,300

REGISTRATION

Classification: Registered Professional Engineer State NY Registration # 3440

EDUCATIONAL AND COLLEGIATE ACHIEVEMENTS

a) Academic Degrees: (Give date, major, institution for each, and identify engineering degrees which are accredited by ECPD or ABET.)

B.S., Mechanical Engineering, Stevens Institute of Technology, 1949
M.S., Mechanical Engineering, Stevens Institute of Technology, 1952
Oak Ridge School of Reactor Technology, 1963

b) Honor Societies: (Give society and office(s) held.)

None.

CONTINUING COMPETENCE DURING LAST THREE YEARS

a) College Credit Courses excluding degrees mentioned above: (Give course and date.)

None.

b) Short Courses and Seminars: (Give course and date.)

Policy Update for Federal Executives, 1987

c) Papers Published: (Give article, journal and date.)

"Sensitivity: The Key to the ASME/NB/NRC Relationship," Mechanical Engineering,
September 1989.

Continued on attached sheet.

NAME OF SUBMITTING AGENCY

U.S. NUCLEAR
REGULATORY COMMISSION

ENGINEERING ACHIEVEMENTS

This is the most heavily weighted category of the judging criteria. Statement of 200 words or less (one page double-spaced) supporting candidate's nomination. Facts presented should include engineering achievements in design, research, development or management during the last three years. To insure anonymity in the judging process, please do not mention candidate's name in the statement. *(Please attach separate sheet.)*

PROFESSIONAL/TECHNICAL SOCIETY ACTIVITIES

a) Membership In:

American Society of Mechanical Engineers (ASME)

b) Offices Held and/or Committee Assignments: *(Give office or committee, responsibility, dates.)*

ASME Board on Nuclear Codes and Standards, member since 1974; Vice Chairman, 1989-90;

Chairman of Committee on Board Operations; Vice Chairman of Special Committee on

Nuclear Plant Life Extension; and Vice Chairman of Pressure (continued on attached sheet)

AWARDS AND HONORS

(Give title and date.)

NRC Distinguished Service Award, 1989

Meritorious Executive (SES Presidential Rank) Award, 1987

Bernard F. Langer Nuclear Codes and Standards Award of the ASME, 1982

Honorary Membership, ANS Nuclear Power Plant Standards Committee, 1981

Centennial Award of the ASME, 1980; NRC Meritorious Service Award, 1978

CIVIC AND HUMANITARIAN ACTIVITIES

Please list name of organization, offices held, and brief summary of activities:

Strong supporter of affirmative action programs for minorities and women; developed creative job-share positions to encourage part-time employment; restructured professional jobs to accommodate working mothers; actively recruits minority professional staff members; actively supports staff participation in programs for minority, female and older employees.

ENGINEERING ACHIEVEMENTS

The Nuclear Regulatory Commission's (NRC's) nominee has directed a major engineering research program designed to assure the safe operation of nuclear power plants and other facilities regulated by the NRC. His major recent engineering accomplishments include the resolution of several significant safety issues at nuclear power plants.

Under his direction, the technical basis for revising NRC's regulations to eliminate potentially unsafe pipe whip restraints and jet impingement barriers at nuclear power plants was developed. The result has been improved safety, reduced radiation exposure for staff, and lower costs.

Major accomplishments with significant reactor safety implications include the completion of large-scale model tests of reinforced concrete and steel reactor containments to validate calculational methods for predicting failure modes and capacities of both containment types; completion of studies of pipe cracking in boiling water reactors, which validated "fixes" proposed by the utility industry and allowed the regulatory staff to make proper judgments about the continued safety of cracked pipes; development of the technical basis for new ASME Code rules for evaluation of cracked carbon- and stainless-steel pipes; development of the screening criterion that limits the permissible embrittlement in reactor pressure vessels; and completion of a cooperative test program with Japan on the ability of nuclear power plant components to withstand seismic loads.

He also was responsible for the development and implementation of improved inspection programs to assure the quality of casks used to transport highly radioactive materials. The success of this effort has led to the establishment of a permanent quality assurance organization to carry out this activity.

Of rapidly increasing importance was his development and implementation of a comprehensive research program to address the technical safety issues related to aging of operating nuclear power plants. This program will provide the technical basis for important future regulatory decisions regarding the extension of licenses for these older plants.

Internationally, the NRC's nominee led the U.S. teams that participated in the IAEA-sponsored International Conference on Nuclear Plant Aging in Vienna, the U.S.-Japan Workshop on Critical Nuclear Power Safety Issues, and the first high-level technical exchange with Soviet engineers and scientists on the key safety issues of pressure vessel integrity and annealing.

PROFESSIONAL/TECHNICAL SOCIETY ACTIVITIES

b) Office Held and/or Committee Assignments (continued):

Vessel Research Committee Code Review.

American National Standards Institute (ANSI) Nuclear Standards Board, member since 1977; also serves on Executive Committee and Planning Committee of the Board.

American Nuclear Society (ANS) Nuclear Plant Standards Committee, NRC representative since 1967.

CONTINUING COMPETENCE DURING LAST THREE YEARS

c) Papers Published (continued):

Numerous talks to national and international groups on nuclear engineering research accomplishments regarding Pressure Vessel Safety, Piping Integrity, Containment Safety, Aging of Structures and Components of Nuclear Power Plants.

"Leak Before Break: Safety Increased Today - What Next?" Proceedings of the Seminar on Leak-Before-Break: Progress in Regulatory Policies and Supporting Research: Tokyo, Japan, May 14-15, 1987 (NUREG/CP-0092).

Contributed to development of published national consensus standards including Addenda to Section III, Design and Section XI, Inservice Inspection of the ASME Boiler and Pressure Vessel Code, and of government standards published as regulations and regulatory guides (also see Professional Technical Society Activities below).