

April 10, 1979

TO: Trip Rothschild, OGC
FROM: Richard J. Goddard, OELD
SUBJECT: PROPOSED MODIFICATION TO REGULATIONS ON EMPLOYEE SECURITIES
OWNERSHIP

This letter is a followup to our recent telephone conversation re the proposed regulation change. The comments following are entirely my own, but many persons to whom I have spoken have expressed similar views.

1. First, let me state that I had no objections (at least nothing serious) with the present regs, and have no objection to the proposed prohibitions against owning securities in nuclear utilities, manufacturers/vendors of power or test reactors, or architectural/engineering companies as listed. Nor do I object to prohibitions re fuel cycle licensees and applicants, although the nuclear involvement of one or two listed appear minimal.
2. However, the compilation of nuclear "consultants" to be prohibited appears to me to reflect no exercise of reasonable judgment. The listing, in excess of 500 companies, contains numerous companies whose nuclear, or even energy-related, activity is clearly de minimis. Moreover, many of these are extremely large organizations with large and widely distributed security offerings, whose fortunes would be negligibly impacted by nuclear occurrences or a sudden increase in their present nuclear "involvement." For example, a cursory review of the list reveals the following:

ADT
Bancroft-Whitney Co.
Boeing
Computer Sciences Corp.
Control Data Corporation
Gulf + Western Industries (G+W Energy Products Group)
Signal Companies (Garrett Corp.)
Fred S. James & Co.
INA Corp. (Insurance Company of North America)
North American Philips
Portland Cement Association
Schlumberger
Smith, Barney & Co.
Smith Kline & French
Teledyne

While I am not, of course, intimately familiar with all of the above, I would imagine that no more than one or two of the listed companies derives as much as 1 or 2 percent of its revenues from the nuclear industry.

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3. As an example of the non-involvement of two of these corporations, in which I presently own common stock, I cite the following conversations:

Computer Sciences Corp. A call to the corporate treasurer revealed that CSC's nuclear activities were "definitely under 1%; we may do some software for others, but I don't know of any nuclear contact; we had abt 325 million revenues last year, and in no way could 3 million of that (1%) have come from the nuclear industry."

(Ref: Mr. Harry Rekas, El Segundo, CA, AC 213/ 678-0311)

Gulf + Western Industries (G+W Energy Products Group is listed as a "Nuclear Consultant." A call to the corporate headquarters in New York City (to the treasurer) gave the following for G+W last year: Energy Products Group revenues, approx 200 million; G+W corporate revenues, more than 4.5 billion. A call to the controller of the Energy Products Group yielded the following: "While I can't give any exact figure, I would say the absolute maximum revenues from products related to the nuclear industry would be 30 million in sales; we are not a factor in the nuclear business at all; we do make one valve, a high-quality activator (?) steam isolation valve, sales about 4 million per year, but it doesn't affect us, we don't make any money on nuclear anyhow, and will probably have even less involvement in the future."

(Ref: Mr. Ed Hirschberg, Southfield, MI, AC 313/ 424-4570)

4. Insofar as a listing of prohibited organizations is to become part of NRC's regs, I would submit that some justification should be furnished for placing such companies on a list. Further, once a company is placed on such a list, any affected employee should have available a relatively workable mechanism for appeal, i.e., a simple means to justify present or future ownership of securities of such a company. I recognize the procedures to accomplish this end would be time-consuming. However, to infringe upon the personal rights of employees, where such ownership cannot be reasonably related to their employment activities to demonstrate a practical conflict of interest, is a major action which should not be accomplished easily.

5. Please advise me if there is to be a public meeting of any sort in regard to these proposed regs; I would be interested in attending one.

Sincerely,

Richard Goddard
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NRC - NTEU

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chapter 208

Memorandum for: N. Bentson, Chief, Labor Management and Employee Relations Branch, ADM

From: J.D. Thomas, Interim President, NTEU Chapter 208

Subject: EVALUATION OF PROPOSED MODIFICATION OF REGULATIONS REGARDING OWNERSHIP OF STOCK, BONDS, AND OTHER SECURITY INTERESTS BY NRC EMPLOYEES

This is to advise you that the Union has received the above cited proposal. To date we have received calls from numerous employees asking if the Commission was really serious about this proposal. The main concern expressed by most callers has been the extensive list of so called nuclear consultants contained on pages 5 through 8 of the proposal. Apparently, this list was compiled from the NRC log of every visitor representing a company which has had any type of business with NRC whatsoever. (It's surprising that Beltway Limosines, the firm that operates the intra-agency shuttle, was not included on the list.)

In any event, the potential impact of this proposed regulation is so great that Chapter 208 feels that negotiations are in order. Prior to such negotiations, it would be most helpful if you could provide us with the following information:

1. Management's basis for lowering the \$7500 rule to \$1000.
2. Management's basis for requiring employees to divest of the securities on the prohibited list in 180 days.
3. Whatever data that is available which indicates that the present regulation is not sufficient.
4. Management's proposal for reimbursing employees for losses as a result of this proposed rule.

Please contact me to arrange a mutually agreeable meeting date.

J. D. Thomas
J. D. Thomas
Interim President
NTEU Chapter 208

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ENCLOSURE 2

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Title 10 -- Energy

CHAPTER 1 -- NUCLEAR REGULATORY COMMISSION

PART 0 -- CONDUCT OF EMPLOYEES

Ownership of Stocks, Bonds, and Other Security Interests
by NRC Employees

AGENCY: U.S. Nuclear Regulatory Commission

ACTION: Final Rule

SUMMARY: The Nuclear Regulatory Commission has revised its regulations governing the ownership of stocks, bonds, and other security interests by NRC employees.

EFFECTIVE DATE: (Date of Publication in the Federal Register)

FOR FURTHER INFORMATION CONTACT: Trip Rothschild, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 (202 634-1465)

SUPPLEMENTARY INFORMATION: The Nuclear Regulatory Commission has conducted a thorough review of its regulations governing the ownership of stocks, bonds, and other security interests by NRC employees and determined that several changes should be made to 10 CFR 0.735-21 and 0.735-29. NRC employees and the National Treasury Employees Union commented on these proposed changes and the final rule adopted by the Commission incorporates some of their comments.

The amendments to 10 CFR 0.735-29 are best understood by briefly summarizing the origin of that section. Added to Part 0 on December 19, 1973, § 0.735-29 prohibited Atomic Energy Commission (the Commission's predecessor agency) employees involved in licensing and regulatory activities from owning security interests in the following types of entities: (a) any publicly or privately owned utility company engaged in the generation, distribution or sale of electric energy, or parent company of such company; (b) any company manufacturing or selling nuclear power or test reactors; (c) any architectural-engineering company primarily engaged in the design or construction of nuclear power or test reactor facilities; and (d) any company whose business consists substantially of serving as a consultant to companies engaged in activities licensed or regulated by the Commission. Upon creation of the Nuclear Regulatory Commission (which acceded to the Atomic Energy Commission's regulatory authority), the decision was made to apply the prohibition of § 0.735-29 to all full-time NRC employees as well as to certain special government employees.

The Commission is amending § 0.735-29 to better reflect the Commission's regulatory responsibilities and an individual employee's role within the agency. NRC employees will for the first time be permitted to own stock, bonds or other

security interests in electric utilities which have not been authorized by the Commission to construct or operate a nuclear reactor or do not have applications pending before the Commission seeking early site review or authorization to construct or operate a nuclear reactor. The Commission does not have jurisdiction over non-nuclear electric utilities and accordingly, we find little justification for prohibiting NRC employees from owning stock in those companies. Of course, once a utility files an application seeking early site review or authorization to construct a nuclear reactor, employees would be prohibited from owning securities issued by that company and employees would be required to divest themselves of any security interests held in that company. The Commission will continue to prohibit its employees from owning bonds issued by state and local governmental entities in those cases where the primary purpose of the bond is to raise funds to operate or construct a nuclear reactor. The Commission is also retaining its prohibition on security interests issued by companies manufacturing or selling nuclear power or test reactors. The Commission is revising its prohibition on architectural-engineering companies so that it will be easier to provide employees with a list of firms whose securities they may not own. Commission employees will be prohibited from owning securities issued by architectural-

engineering companies that have been engaged to provide services relating to a nuclear facility by an applicant for a construction permit, a holder of a construction permit, or an applicant for an operating license. In addition, employees will be prohibited from owning securities issued by architectural-engineering companies which have filed a standard reference design that is under Commission review, or has been approved by the Commission and is currently effective.

The Commission will also for the first time prohibit its employees from owning securities issued by fuel cycle applicants or licensees (companies engaged in milling, converting, fabricating, or reprocessing, source or special nuclear material). This category is added because a large number of Commission employees are involved in regulatory activities related to the nuclear fuel cycle.

[Add paragraph here on consulting firms summarizing Commission decision.]

The foregoing security ownership prohibitions will be applicable to all NRC employees occupying positions at the GS-13 level or above, and as well as all other employees who provide input into the decision-making process. (These employees will be designated by the Commission according to their

occupational code). The security ownership prohibitions will apply to the NRC employee, and to the employee's spouse, minor children, and any other member of the employee's household. The Commission considered applying the prohibitions as is done presently to all Commission employees. The Commission decided not to do so because many employees, such as clerical personnel, do not participate in the decision-making process. A far-ranging restriction on their personal investing freedom is unnecessary. This, however, does not create a regulatory gap which could allow these employees to profit from inside information gained as an NRC employee. NRC regulations prohibit all employees from directly or indirectly using or allowing the use of official information, obtained through or in connection with their government employment, which has not been made available to the general public, to further a private interest. 10 CFR 0.735-41.

To implement these provisions, NRC employees subject to this restriction will be given a list twice a year of those securities which they are prohibited from purchasing. Employees will be given [180 or 365] days from the time the list is published to divest themselves of any prohibited security interest. Employees will not be permitted to work on matters affecting an entity until they have divested themselves of

the prohibited security, notwithstanding the provision of 0.735-21(c), discussed below. Employees will for the first time be required to certify annually that they are in compliance with 0.735-29. Employees will also sign such a certification within thirty days after commencing NRC employment. This codifies existing NRC practice.

With respect to securities which NRC employees are not prohibited from owning, Section 0.735-21 of the Commission's regulations permits NRC employees, including special government employees, to work on matters affecting the issuing entity provided that the current market value of the security interests held by the employee and members of his immediate household do not exceed \$7500. The Commission is reducing that \$7500 figure to \$1000. The Commission believes that in some cases \$7500 may be a significant portion of an employee's liquid assets and that an investment of that size could conceivably affect an employee's judgment. Accordingly, we are reducing the de minimis figure.

Because these amendments relate solely to matters of agency management or personnel, good cause exists for omitting notice of proposed rulemaking, and public procedure thereon, as unnecessary, and for making the amendments effective upon publication in the Federal Register.

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Pursuant to section 2201(p) of Title 42 of the United States Code, Executive Order 11222 of May 8, 1965, 5 CFR 735.104, and sections 552 and 553 of Title 5 of the United States Code, the following amendments to Title 10, Chapter 1, Code of Federal Regulations, Part 0, are published as a document subject to codification, to be effective _____ (date of publication in the Federal Register).

1. 0.735-21(c)(1) is revised to read as follows:

Exemption of remote or inconsequential financial interests. (1) in accordance with the provisions of 18 U.S.C. 208(b)(2) the NRC has exempted the following financial interests from paragraph (a) of this section and from the requirements of paragraph (b) of this section, upon the ground that such interests are too remote or too inconsequential to affect the integrity of its employees' services:

(i) Financial interests in an enterprise in the form of shares in the ownership thereof, including preferred and common stocks whether voting or nonvoting, and warrants to purchase such shares;

(ii) Financial interests in an enterprise in the form of bonds, notes, or other evidence of indebtedness;

(iii) Investments in State or local government bonds and investments in shares of a widely held diversified mutual fund or regulated investment company, except holdings in mutual investment funds or regulated investment companies dealing primarily in atomic energy stocks;

Provided, That, in the case of subdivisions (i) and (ii) of this subparagraph:

(a) The total market value of the financial interests described in said subdivisions with respect to any individual enterprise does not exceed \$1000; and

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(b) the holdings in any class of shares, or bonds, or other evidences of indebtedness, of the enterprise do not exceed 1 percent of the dollar value of the outstanding shares, or bonds or other evidences of indebtedness in said class.

2. § 0.735-29 is amended to read as follows:

§ 0.735-29 Restriction against ownership of certain security interests by Commissioners, certain staff members and other related personnel

(a) No Commissioner or employee, including special government employees who are members of the Advisory Committee on Reactor Safeguards, the Atomic Safety and Licensing Board Panel or the Atomic Safety and Licensing Appeal Panel, who occupies a position at or above GS-13 or its equivalent, shall own any stocks, bonds, or other security interests issued by any entity falling within the categories set forth in subsection (b)(1). This prohibition also applies to employees who occupy positions below the GS-13 level that fall within occupational codes designated by the Commission. The restrictions set forth in this section apply to spouse, minor child, or other members of the immediate household of a Commissioner, employee, or special government employee. In cases where the entity covered by the prohibition is a subsidiary of another corporation, the prohibition extends to the parent company.

(b) The Commission will publish twice yearly a list of stocks, bonds, and other security interests which employees covered by this section may not

(1) These are stocks, bonds, or other security interests issued by:

(i) Publicly or privately owned utilities which have filed an application with the Commission requesting an early site review, or seeking authorization to construct or operate a facility for the generation of electric energy by means of a nuclear reactor and those

utilities which have received a construction permit or an operating license from the Commission that is currently effective.

- (ii) State or local governments, if the primary purpose of the security is to finance the construction or operation of a nuclear reactor.
- (iii) Companies manufacturing or selling nuclear power or test reactors.
- (iv) Architectural-engineering companies that have been engaged to provide services relating to a nuclear facility by an applicant for a construction permit or an applicant for an operating license, and architectural-engineering companies which have filed a standard reference design that is under Commission review or has been approved by the Commission and is currently effective.
- (v) Nuclear consultants (the Commission has three options):
 - (a) delete this category;
 - (b) any company or firm which serves as a consultant on activities licensed or regulated by the NRC;

or

 - (c) any company or firm which serves as a consultant on activities regulated by the NRC, and is designated by the Commission because of its substantial involvement in the commercial nuclear field.

- (2)(i) An individual covered by this section who owns any securities described in paragraph (a)(1) shall dispose of them no later than [180] or [365] days after the entities first appears on the list described in paragraph (a). Notwithstanding the provisions of § 0.735-21, no employee may participate personally and substantially in a particular matter affecting an entity that appears on the list as long as the employee or his spouse, minor child, or other members of his immediate household owns the security interest.

(ii) An individual newly employed by NRC who is covered by this section shall dispose of any securities described in paragraph (a)(1) that the employee may own no later than 30 days after his entrance on duty and within the same period shall ensure and sign a certification that neither the employee nor any individual who is covered by this section through relationship with him owns any securities described in that paragraph.

(c) Each individual employed by NRC who is covered by this section shall each year sign either (i) a certification that neither he nor any individual covered by this section through relationship with him owns any securities described in paragraph (a)(1) or, if he or any such individual in fact owns securities therein described, (ii) a certification identifying them, disclosing how and when they were acquired and stating approximately when they will be disposed of.

(d) Securities described in paragraph (b)(1) that are acquired by an individual who is covered by this section through gift, inheritance or other similar involuntary manner shall be disposed of within a reasonable time.

(e) The Commission may exempt an employee from the restrictions of this section where divestiture of the stock, bond, or other security interest is determined to be inequitable by the Commission.

For the Commission

SAMUEL J. CHILK
Secretary of the Commission

Dated at Washington, D.C.

this ____ day of _____, 1979.

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ENCLOSURE 3

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Employees Covered by Proposed Ownership Restrictions

1. All Employees classified as GS-13 and above; and
2. All Employees below GS-13 who are in the following Occupational Codes:

<u>Occupational Codes</u>	<u>Job Category</u>
000-0 - 0099-0 0100-0 - 0199-0	Security Social Science, Psychology & Welfare
0200-0 - 0299-0 except 0203	Personnel
0300-0 - 0399-0 except 0301, 0302, 0313, 0316, 0318, 0322, 0324, 0335, 0356, 0382	Administrative and Program Management
0400-0 - 0499-0 0500-0 - 0599-0 except 0501, 0520, 0522, 0530, 0540, 0544	Biological Sciences Accounting and Budget
0600-0 - 0699-0 0800-0 - 0899-0 0900-0 - 0999-0 1000-0 - 1099-0 except 1022, 1060, 1084, 1087	General Health Sciences Engineering and Architecture Legal and Kindred Information
1100-0 - 1199-0 except 1106	Contract and Procurement
1222-0	Patent
1300-0 - 1399-0	Physical Sciences
1400-0 - 1499-0	Library and Technical Infor- mation
1500-0 - 1599-0	Mathematics and Statistics
1600-0 - 1699-0	Equipment, Facilities and Service
1700-0 - 1799-0	Education Research and Program
1800-0 - 1899-0	Investigation
1900-0 - 1999-0	Quality Assurance, Inspection and Grading
2000-0 - 2099-0	Supply Group

COMPANIES IN WHICH NRC EMPLOYEES COVERED BY 10 CFR 0.735-29
WOULD BE PROHIBITED FROM OWNING STOCKS, BONDS, OR
OTHER SECURITY INTERESTS

1. Nuclear Utilities

Alabama Power Company	Cincinnati Gas & Electric Company
*Alachua Electric Department, Florida	Cleveland Electric Illuminating Co.
Allegheny Electric Cooperative, Inc.	Columbus & Southern Ohio Electric Co.
American Electric Power Co., Inc.	Commonwealth Edison Company
*Anaheim Electrical Division, Calif.	Connecticut Light & Power Company
Appalachian Power Company	Connecticut Yankee Atomic Power Co.
Arizona Public Service Company	Consolidated Edison Co. of New York
Arkansas Power & Light Company	Consumers Power Company
*Ashburnham Municipal Light Dept., Massachusetts	Cooperative Power Association
Associated Electric Cooperative, Inc.	Corn Belt Power Cooperative
Atlantic City Electric Company	Dairyland Power Cooperative
*Austin Electric Department, Texas	Dallas Power & Light Company
Baltimore Gas & Electric Company	*Dalton Water & Light Commission, GA
Bangor Hydro-Electric Company	*Danvers Electric Dept., Massachusetts
Boston Edison Company	The Dayton Power & Light Company
*Boylston Municipal Light Department, Massachusetts	Delmarva Power & Light Company
*Burbank Public Service Department, California	Detroit Edison Company
*Burlington Electric Department, Vermont	Duke Power Company
*Bushnell Utility Dept., Florida	Duquesne Light Company
*California Department of Water Resources	Eastern Utility Associates
Cambridge Electric Light Co.	El Paso Electric Company
Canal Electric Company	*Eugene Water & Electric Board, Oregon
Carolina Power & Light Company	Fitchburg Gas & Electric Light Co.
Central Hudson Gas & Electric Corp.	Florida Power Corporation
Central Iowa Power Cooperative	Florida Power & Light Company
Central Maine Power Company	*Gainesville-Alachua County Regional Electric, Water, and Sewer Utilities Board, Florida
Central Power & Light Company	General Public Utilities Corporation
Central & Southwest Corporation	Georgia Power Company
Central Vermont Public Service Corp.	*Glendale Public Service Dept., CA
*Chicopee Electric Light Department, Massachusetts	Green Mountain Power Corporation
	Gulf States Utilities Company
	Hartford Electric Light Company
	*Hingham Municipal Lighting Plant, Massachusetts

* Those entities marked by an asterisk are municipal or state government organizations. Ownership of bonds or other financial instruments issued by such organizations is proscribed only when such bonds or other financial instruments are specifically for the construction of nuclear power plants.

- *Holden Municipal Light Dept.,
Massachusetts
- *Holyoke Gas & Electric Dept.,
Massachusetts
- Houston Lighting & Power Co.
- *Hudson Light & Power Dept.,
Massachusetts
- Illinois Power Company
- Indiana & Michigan Power Co.
- Interstate Power Company
- Iowa Electric Light & Power Co.
- Iowa-Illinois Gas & Electric Co.
- Jersey Central Power & Light Co.
- Kansas City Power & Light Co.
- Kansas Gas & Electric Co.
- *Kissimee Utilities, Florida
- Lake Superior District Power Co.
- *Leesburg Municipal Electric Dept.,
Florida
- *Littleton Electric Light & Water
Dept., Massachusetts
- Long Island Lighting Company
- *Los Angeles Dept. of Water &
Power, California
- Louisiana Power & Light Co.
- *Lyndonville Electric Dept., VT
- Madison Gas & Electric Company
- Maine Public Service Company
- Maine Yankee Atomic Power Co.
- *Mansfield Municipal Electric
Dept., Massachusetts
- *Marblehead Municipal Light Dept.,
Massachusetts
- Massachusetts Municipal Wholesale
Electric Co.
- Metropolitan Edison Company
- *Middleborough Gas & Electric
Dept., Massachusetts
- Middle South Utilities, Inc.
- *Middleton Municipal Light Dept.,
Massachusetts
- Mississippi Power & Light Co.
- Montaup Electric Company
- Municipal Electric Authority of GA
- Nebraska Public Power District
- Nevada Power Company
- New Bedford Gas & Edison Light Co.
- New England Electric System
- New England Gas & Electric Association
- New England Power Company
- *New Smyrna Beach Utilities Commission,
Florida
- New York State Electric & Gas Corp.
- Niagara Mohawk Power Corporation
- *North Attleborough Municipal Electric
Light Dept., Massachusetts
- North Carolina Municipal Power Agency
No. 1
- Northeast Utilities
- Northern Indiana Public Service Company
- Northern Michigan Electric Cooperative
- Northern States Power Company
- *Ocala Utilities Division, Florida
- Oglethorpe Electric Membership Corp.
- Ohio Edison Company
- Omaha Public Power District
- Orange & Rockland Utilities, Inc.
- *Orlando Utilities Commission, Florida
- Pacific Gas & Electric Company
- Pacific Power & Light Company
- *Pasadena Water & Power Dept., CA
- *Pascoag Fire District (Electric Dept.),
Rhode Island
- *Paxton Electric Light Department
- *Peabody Municipal Light Plant, MA
- Pennsylvania Electric Company
- Pennsylvania Power Company
- Pennsylvania Power & Light Company
- Philadelphia Electric Company
- Portland General Electric Company
- Power Authority of the State of New York
- Public Service Company of Colorado
- Public Service Company of Indiana, Inc.
- Public Service Company of New Hampshire
- Public Service Company of New Mexico
- Public Service Company of Oklahoma
- Public Service Electric & Gas Company
- Puerto Rico Water Resources Authority
- Puget Sound Power & Light Company
- *Reading Municipal Light Dept., MA
- *Riverside Public Utilities, CA
- Rochester Gas & Electric Corporation
- *Sacramento Municipal Utility District
- Salt River Project Agricultural
Improvement & Power District

- *San Antonio Public Service Board,
Texas
- San Diego Gas & Electric Company
- *Sebring Utilities Commission, FL
- Seminole Electric Cooperative, Inc.
- *Shrewsbury Municipal Light Plant,
Massachusetts
- South Carolina Electric & Gas Co.
- South Carolina Public Service
Authority
- Southern California Edison Company
- Southern Company
- *South Hadley Electric Light
Dept., Massachusetts
- Soyland Power Cooperative, Inc.
- *Tallahassee Electric Dept., FL
- *Taunton Municipal Lighting Plant,
Massachusetts
- *Templeton Municipal Lighting
Plant, Massachusetts
- Tennessee Valley Authority
- Texas Electric Service Co.
- Texas Power & Light Co.
- Texas Utilities Company
- Toledo Edison Company
- Union Electric Company
- United Illuminating Company
- Vermont Electric Power Cooperative
- Vermont Electric Power Co., Inc.
- Vermont Yankee Nuclear Power Corp.
- Virginia Electric & Power Corp.
- Wabash Valley Power Association
- *Wakefield Municipal Light Dept.,
Massachusetts
- Washington Public Power Supply
System (WPPSS)
- Washington Water Power Company
- *West Boylston Municipal Light
Dept., Massachusetts
- Western Farmers Electric Coop.
- Western Illinois Power Cooperative, Inc.
- Western Massachusetts Electric Co.
- *Westfield Gas & Electric Light Dept.,
Massachusetts
- Wisconsin Electric Power Company
- Wisconsin Michigan Power Company
- Wisconsin Power & Light Co.
- Wisconsin Public Service Corporation
- Wolverine Electric Cooperative, Inc.
- Yankee Atomic Electric Company

2. Manufacturers/Vendors of Power or Test Reactors

Combustion Engineering	Offshore Power Systems
General Electric	Shell Oil (General Atomic)
Gulf Oil (General Atomic)	Westinghouse
McDermott Corp. (Babcock & Wilcox)	

3. Architectural Engineering Companies

Bechtel	Gibbs & Hill
Black & Veatch	Gilbert Associates/Commonwealth Companies
Brown & Root	Sargeant & Lundy
Burns & Roe	Stone & Webster
C. F. Braun	Southern Services Co.
Ebasco	United Engineers & Constructors
Fluor-Pioneer	

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4. Fuel Cycle Applicants and LicenseesPlutonium Fabricators

McDermott (Babcock and Wilcox)
 Exxon
 General Electric
 Kerr McGee
 Westinghouse

Uranium Fabricators

Combustion Engineering
 Exxon
 General Electric
 Kerr McGee
 McDermott (Babcock and Wilcox)
 Nuclear Dynamics (General Atomic)
 Nuclear Fuel Services
 Rockwell International (Atomic
 International)
 Texas Instruments
 U.S. Nuclear
 United Nuclear
 Westinghouse

Uranium Hexafluoride Producers

Kerr McGee
 Allied Chemical

Fuel Reprocessors

Nuclear Fuel Services

Uranium Mills -- Applicants
and Licensees

American Nuclear Corp.
 Atlas Minerals
 Cleveland Cliffs Iron Company
 Commonwealth Edison (Carter, Inc.,
 Plateau Resources)
 Energy Fuels Nuclear
 Exxon Company
 Federal American Partners
 Federal Resources Corp.
 Getty Oil (Petrochemicals Company)
 Holmes and Narver, Inc.
 Homestake Mining Company
 J&P Corporation
 Kerr-McGee Corporation
 Nuclear Dynamics, Inc.
 Ogle Petroleum
 Pathfinder Mines Corp.
 Phelps-Dodge (Western Nuclear, Inc.)
 Rio Algom Mines Ltd.
 Union Pacific (Bear Creek Uranium
 Company)
 Union Pacific (Rocky Mt. Energy --
 Haliburton Joint Venture)
 TVA
 Union Carbide
 Union Oil (Minerals Exploration)
 United Nuclear Corp.
 World Nuclear Company
 Westinghouse (Wyoming Mineral Corp.)

Nuclear Consultants

ACF Industries, Inc.
Ackenheil & Assoc.
Accelerators, Inc.
ADT
Aerospace Corporation
Aerotherm Acurex Corp.
Aerotest Operations
Agatha Corp.
Agbabian Assoc.
The Louis Allis Co.
Ameron
Amperex Electronic
Amphenol Sams Div.
Analytic Services, Inc.
Anchor-Darling Valve Co.
Anderson Greenwood & Co.
Applied Engr.
Applied Metro Technology
Applied Nucleonics
Applied Research Corp.
Applied Technol. Assoc.
E. D'Appolonia Consulting
Engrs.
Aquatic Control, Inc.
ARHCO-Commercial Nuclear
Studies
Associated Consultants
International Corp.
ATCOR, Inc.
ATEC Assoc. of Maryland
Atwood & Morrill Co.
Auisco, Inc.
BDM Corporation
Gage Babcock and
Associates, Inc.
The Badger Co.
Baird Atomic
Baker & Taylor Co.
Baldwin Assoc.
Ball Bros. Research Corp.
Bancroft-Whitney Co.
Barbay Engineers
Basic Technol., Inc.
W.T. Batcheller Internat'l
B.B. Nuclear Energy
Consult.

R.W. Beck & Assoc.
Beckman Instruments
Benham-Blair & Affiliates
Bicron Corp.
Bio Engineering
M.W. Bittinger & Assoc.
H.B. Block & Associates
Blount Bros. Corp.
BMR Security Products
Boeing Corporation
Bowser-Morner Testing
Lab.
Booz-Allen Applied
Research
Boston Insulated Wire &
Cable
W.H. Brady Co.
Brand Industrial Serv.
Briggs Engr. & Testing
Frank Briscoe Co.
Brock & Blevins Co.
Dayton T. Brown, Inc.
Brown Engineering
Brown Boveri Corp.
Burns & McDonnell
California Cartage Co.
Calspan Corp.
Cameron Engineers
Canberra Industries
Carborundum Co.
The Carlson Corp.
Carpenter Technology
Chem Nuclear Systems
Chiasma Consultants
CH₂M Hill
Charles River Assoc.
Civil Nuclear Systems
G.D. Clayton & Assoc.
F.L. Clifford Assoc.
Clow Corp.
Coastal Radiation Serv.
Columbia Services, Inc.
Computer Science Corp.
Comstock/Jackson Wading
River
L.K. Comstock & Co.

Conax Corp.
Consolidated Energy Serv.
Control Data
Controls for Environ-
mental Pollution
Coratomic, Inc.
Cosmodyne
Crawford & Russell, Inc.
Creare, Inc.
Crouse-Hinds Co.
Cryenco
CTI Nuclear
CVI Corp.
Consolidated Controls Corp.
Daedalean Assoc., Inc.
Daedalus Enterprises
Dames & Moore
Datomation
Dearborn Chem. Div.
Delat Labs.
Delphia Industries
De Ment Labs.
Denardo & McFarland
C.J. Deravin Co.
Diagnostic Isotopes
Dikewood Industries
Dielman Consultants
Dis-Con, Inc.
John Dolio & Assoc.
Richard N. Donelson &
Assoc.
Dunegan/Endevco
E Systems, Inc.
Earthquake Engineering
Systems
Earth Sciences
Eberline Instrument Corp.
Ecodyne Corp.
Ecological Analysts
Ecology & Environment
Ecology Audits
Ecos. Inc.
EDAC
Editech
EDS Nuclear
Edlow International

Electro Nucleonics	Garrett Corp.	Inland-Ryerson Constr.
Elwood Nuclear Safety	GCA/Technol. Div.	Prod. Co.
ENEL	Genasys Dynamics Corp.	Insulated Cable Corp.
Energy Engineering Group	General Analytics, Inc.	Institute of Systems
Energy, Inc.	General Dynamics Corp.	Sciences
Energy Research & Tech.	General Physics Corp.	Intelecom Rad Tech.
Center	General Research Corp.	Interdevelopment, Inc.
Energy Research Group	Geophysics Research &	Intermountain Technology
Energy Services Corp.	Development Corp.	Interex Corp.
Engineering Analytics	Geraghty & Miller	International Consult-
Engineering Decision	Gifford Hill & Co.	ants
Analysis	Global Engr.	Internat'l Research &
Engineering, Inc.	Gollob Analytical Serv.	Technol. Corp.
ENSCO, Inc.	Griffith & Stokes	Isotopes, Inc.
Environment Consultants	Gulf South Research Inst.	ITE Imperial Corp.
Environmental Analysts	Hales & Co.	JRB Associates, Inc.
Environmental Radiation	Haley & Aldrich	JBF Scientific Corp.
Mgmt.	Frank B. Hall & Co.	Fred S. James & Co.
Environmental Research &	Halliburton/Welex	E.R. Johnson & Assoc.
Technol.	Halliburton Services	Wm. B. Johnson & Assoc.
Environmental Sci. & Engr.	Harding-Lawson Assoc.	Kafin & Needlam
Environmental Technol.	Harleco	Kalamazoo Radiology/PC
Assessment	Frederic H. Harris, Inc.	Kaman Sciences Corp.
Erico Products	Harris Corp.	Karl, Zepf, Freitag &
Ethicon, Inc.	Harris & Walsh	Assoc.
Evans Hamilton, Inc.	Hazeltine Corp.	J.J. Keller & Assoc.
Failure Analysis Assoc.	Health Physics Associates	The Kerite Co.
Factory Mutual Research	Health Research Group	Kevox Corp.
Farr Co.	Health Science Assoc.	Walter Kidde & Co.
Fegles-Power Service Corp.	Heyward-Robinson	Kinematics, Inc.
Ralph M. Field & Assoc.	Gifford Hill & Co.	KSB Technical Sales
Fields Griffith Assoc.	Hill Ingman Chase & Co.	Kuhlam Corp.
Fischbach/Lord Elec. Co.	Hittman Nuclear & Devel.	Lake Systems Corp.
Fisher & Porter Co.	Assoc.	Ledoux & Co.
The Howard P. Foley Co.	Hudson Products Corp.	Leslie Co.
Foundation Sciences	Robert W. Hunt Co.	W.M. Lewis & Assoc.
Forrest & Cotton	ICN Life Sciences	LFE Corp. Environmental
Foster Assoc.	IMC Chemicals Corp.	Analysis
Fox Valley Tech.	INA Corp.	Limback Co.
Freese & Nichols	Industrial Bio-Test Labs.	Litwin Corp.
Frick Co.	Industrial Engineering &	Lockwood Greene Engrs.
Fruin-Colnon Corp.	Equip. Co.	Loss Prevention
Fugro Corp.	Industrial Hygiene Engr.	Diagnostics
Fuller Engr.	Assoc.	LND Inc.
GAF Corp.	Industrial Nucleonics Corp.	Ludlam Measurements
Gamma Industries	Industrial Reactor Labs.	Lulejan & Assoc.
G&W Energy Products Group	Ingersoll-Rand	The Lummus Co.

The Lunkenheimer Co.
 Madigan-Praeger, Inc.
 Magnetrol International
 Mallenkrodt, Inc.
 Management Analysis
 Center, Inc.
 Marin Systems, Inc.
 Master Specialties Co.
 Mathematical Applications
 Mathematic Sciences
 Northwest, Inc.
 MBH Environmental Con-
 sultants
 McCormack's Highway
 Transp.
 Jack McCormick & Assoc.
 I.J. McCullough, Inc.
 Arthur G. McKee & Co.
 McNeil Labs.
 Measurex Corp.
 Mechanics Research, Inc.
 Medco Engineering
 Medi-Physics
 Medtronic, Inc.
 Mercury Co. of Norwood
 Meterology Research
 Metrics, Inc.
 Micromedic Systems
 Miller-Picking Corp.
 Mineral Insulated Com-
 ponent Systems
 Min Max
 The Mitre Corp.
 Morse Products Mfgr.
 MPR Assoc.
 D.W. Murray Co.
 Myers Assoc.
 J.L. Industries
 Naeco Assoc.
 Nalls & Co.
 Napko Corp.
 Nash Engr.
 National Biocentric
 National Nuclear Corp.
 NERA, Inc.
 Newport News Industrial
 Corp.

Neutech, Inc.
 Neutron Products
 Nooter Corp.
 North Amer. Phillips
 Northern Scientific
 NPS Anatek
 NPS Designs
 Nuclear Associates
 International Corp.
 Nuclear Battery Corp.
 Nuclear Chicago
 Nuclear Data, Inc.
 Nuclear Diodes, Inc.
 Nuclear & Systems Sci.
 Group
 Nuclear Associates, Inc.
 Nuclear Assoc. Internat'l
 Nuclear Assurance Corp.
 Nuclear Consulting Services
 Nuclear Energy Services
 Nuclear Engr. Co., Inc.
 Nuclear Engr. Service Co.
 Nuclear Environmental Engr.
 Co.
 Nuclear Environmental Serv.
 Nuclear Management
 Nuclear Marketing & Con-
 sulting
 Nuclear Measurements Corp.
 Nuclear Plant Services
 Nuclear Radiation Devel.
 Nuclear Safety Assoc.
 Nuclear Safety Research
 Assoc.
 Nuclear Services Corp.
 Nuclear Systems, Inc.
 Nuclear Support Services
 Nuclear Water & Waste
 Technol., Inc.
 Wm. W. Nugent & Co.
 Nunn, Snyder & Assoc.
 NUS Corp.
 NUSAC, Inc.
 Joseph Oat & Sons
 O'Donnell & Associates
 The Ohmart Corp.
 Olympic Engineering Corp.

OMN: Spectra, Inc.
 Operational Systems, Inc.
 The Pace Companies
 Pacific NW Water Lab.
 Pacific-Sierra Research
 Corp.
 Pacific Scientific
 G.G. Pagonis Assoc.
 Pall Trinity Micro Corp.
 Parameter, Inc.
 Peabody Testing Services
 Pezzullo, Sweeney & Assoc.
 Physics International
 Pickard, Lowe and Garrick,
 Inc.
 Pucius Pitkin, Metro-
 polis
 Pioneer Industronics
 Corp.
 Planning Research Corp.
 PMB Systems Engr.
 Porter-Gertz Consultants
 Portland Cement Assoc.
 John W. Powell Consult-
 ants
 The Wm. Powell Co.
 Power Piping Co.
 Power Regulatory Co.
 Power Systems Group
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 Power systems, Inc.
 J.F. Pritchard & Co.
 Princeton Gamma-Tec
 Process Research
 Procon, Inc.
 Project Management Corp.
 Proto-Power Management
 Corp.
 The Pyle-National Co.
 Q/A Corp.
 Quirk, Lawler & Matusky
 Racon, Inc.
 Radeco, Inc.
 Rader & Assoc.
 Radiation Corp.
 Radiation Detecting Equip.
 The Radiation Health
 Center

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Radiation Management Corp.	Southern Nuclear Engr.	University Engineers
Radiation Research Assoc.	Southern Services	U.S. Nuclear, Inc.
Radiation Services Org.	Southwest Econometrics, Inc.	Uranium Recovery Corp.
Radiation Technol. Programs	Space Science Services	URS Research Co.
Radiological Science Corp.	SSP Products	Valve Engr. Lab.
Radiology Assoc.	STAFCO, Inc.	Allen D. Vaughan,
Byron D. Rall & Assoc.	STAT-A-MATRIX	Industrial Hygienist
Ramsey Method Western	The S.M. Stoller Corp.	Victoreen Instrument Co.
Corp.	STV, Inc.	Videotechniques
R&D Associates	Sulzer Bros.	Vista Pines, V-1
REMAC	Sundstrand Nuclear	Vitro Engineering
The Research Corp.	Accessories	Vitro Labs.
Reuther-Stokes	Suntac Nuclear Corp.	W.A. Wahler & Assoc.
Rist-Frost Assoc.	Sutter International	Joseph S. Ward & Assoc.
RMI Co.	Equip. Corp.	Washington Researchers
Rockwell Internat'l Corp.	Sweet & Assoc.	Water Assoc.
Rohm & Haas Co.	Swindell-Dressler	The Weatherhead Co.
William H. Rorer, Inc.	Syn-An, Inc.	Weather Measure Corp.
Roundant Associates	Systems Science & Software	Weidlinger Assoc.
RSA Corp.	Systems Engr. Co.	Welex
RTI-Engr.	Systems Engr. Labs	Werner & Pfleiderer Corp.
Carotrius & Co.	Tadger-Cohen-Assoc.	Western Concrete Structures
SCS Engineers	Technical Operations, Inc.	Western Nuclear, Inc.
Scandpower	Teknekron, Inc.	Roy F. Weston, Inc.
Schirmer Engr. Corp.	Teledyne Materials Research	Weston Components
Schlumberger Tech. Corp.	Tennessee Eastman	Weston Geophysical Engr.
Schlumberger Well Services	Tetra Tech., Inc.	Weston Schlumberg
Schneider, Inc.	Texas Instruments, Inc.	The Ralph White Co.
M.C. Schumacher, CHP	Thermo Electric	Whittaker Corp.
Schutte & Koerting Div.	Thermo Electron Engr.	J.H. Wiggins Co.
Schwarz/Mann	C.W. Thompson Co.	Adrian Wilson Assoc.
Science Applications, Inc.	Tippetts-Abbott-McCarthy-	Frank S.G. Williams &
Scott Aviation Div. A-T-O	Stratton	Assoc.
Seismic Exploration, Inc.	Transcomm., Inc.	Wisnes & Becker
Seismograph Service Corp.	Transnuclear, Inc.	Wiss, Janney, Elstner
Senco Products	Transfer Systems, Inc.	& Assoc.
Sentracon Systems	TRC-Research Corp.	Woodward-Clyde Consultants
Shannon & Wilson &	TRI Nuclear Corp.	Woodward-Envicon
Agbabian Assoc.	Tri-State Motor Transit	Woodward-Gardner & Assoc.
The Benjamin F. Shaw Co.	TRW, Inc.	Woodward-Krazyński & Assoc.
Shondore Engr.	Underwood Jordan Assoc.	Woodward-Lundgren & Assoc.
Showcase Corp.	Union Security Services	Woodward-McMaster & Assoc.
Silas Mason Co.	The Unitech Co.	Woodward-McNeill & Assoc.
D.D. Smith & Assoc.	United Engineers and	Woodward-Moorhouse & Assoc.
Smith, Barney & Co.	Construction	W.J. Wooley & Co.
Smith, Kline & French Labs.	United Nuclear Industries	Charles Yulish Assoc.
Solid State Radiation	United Power Assoc.	H.B. Zachry Co.
Southern Engineering of	United Services	H. Zinder & Assoc.
Georgia	United States Radium	Zollman Assoc.