

UNION OF CONCERNED SCIENTISTS

January 3, 1977

Commissioner Victor Gilinsky
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Commissioner:

We received the enclosed document from an individual who wishes to remain anonymous. We are sending it to you in the hope that the Nuclear Regulatory Commission will take prompt action to protect the health and safety of the public from the known risks discussed in the document.

The document correctly indicates that the consequences of a fuel handling accident inside the reactor containment building are not considered by the NRC in deciding whether a nuclear power plant should receive a license. In addition, the document indicates that Westinghouse believes that a fuel handling accident inside containment could result in radiation doses to the public in excess of 10 CFR Part 100 limits, i.e., in excess of 25 rem to the whole body and 300 rem to the thyroid. In view of these statements, it appears that a fuel handling accident inside containment is an "unreviewed safety question" and a "significant safety hazard."

We recommend that the NRC review the design and procedures of each operating nuclear power plant to determine whether a fuel handling accident inside containment will result in doses that "are well within the guideline values of 10 CFR Part 100," as specified in Section 15.7.4 of the Standard Review Plan. Until such reviews are completed, we believe that the NRC should issue orders to halt all refueling operations in progress and to prohibit all future refueling operations. In addition, we believe that it is appropriate for the NRC to initiate investigations to determine whether Section 206 of the Energy Reorganization Act of 1974 has been violated by individual directors or responsible officers of Westinghouse and other firms which received the enclosed document.

We would appreciate hearing from you promptly regarding the action that NRC will take to resolve this matter. We also would like an explanation of the reasons for NRC not previously requiring analysis of a fuel handling accident inside containment and the steps that will be taken to correct this deficiency in the licensing process.

By copy of this letter, we are also sending the enclosed document to the chairman of the Advisory Committee on Reactor Safeguards, the Atomic Safety and Licensing Board Panel and the Atomic Safety and Licensing Appeal Panel.

Sincerely,

A handwritten signature in cursive script that reads "Robert D. Pollard".

Robert D. Pollard

As you are aware, a fuel handling accident in the spent fuel storage building is analyzed in plant Safety Analysis Reports. The assumptions utilized for this analysis are outlined in Regulatory Guide 1.25, "Assumptions Used for Evaluating the Potential Consequences of a Fuel Handling Accident in the Fuel Handling and Storage Facility."

The off-site consequences of this accident are compared to 10CFR100 limits of 300 rem to the thyroid and 25 rem whole body dose in the Safety Analysis Reports. In addition, the NRC compares the resultant doses with unofficial limits of 30 rem to the thyroid and 5 rem whole body dose.

However, a fuel handling accident inside the containment is not addressed in the Safety Analysis Reports, other than indirectly in Standard Tech Specs. We are not aware of the NRC bases for not addressing a fuel handling accident inside containment, the bases may include:

1. The assumption that the containment will be isolated during refueling operations;
2. that the containment could be isolated quickly enough to limit off-site consequences; or
3. that filtration capability comparable to that in fuel storage building exhausts exists in the containment purge exhaust.

These bases are similar to the bases used to address the fuel handling accident in the fuel handling building.

Information available to us, including results of scoping analyses using very conservative assumptions based upon Regulatory Guide 1.25, indicates that site boundary doses in excess of exposure guidelines set forth in 10CFR100 could result from a fuel handling accident inside containment if one assumes no credit for containment isolation, iodine filtration, or mixing within containment. In addition to using Regulatory Guide 1.25 assumptions in the scoping analyses, we assumed operation of systems which would result in the most conservative dose. For example, it was assumed that a push-pull type or exhaust only sweep ventilation system is in operation over the refueling canal so that activity releases are routed immediately to the purge exhaust.

Much of the information required to do an evaluation for specific plants is not available to us. We do recommend, however, that you evaluate the consequences of this potential incident to assure that unacceptable doses are not a probable result. Since the NRC regulations do not require the analysis, we do not believe this situation requires reporting to the NRC unless your engineering evaluation shows unacceptable results. In accomplishing the evaluation for your plant, we recommend that you use Regulatory Guide 1.25 assumptions or other conservative justifiable parameters. We also believe that you should not take credit for the function of any system or component that is not qualified for operation during this particular incident. For example, we think you might take credit for equipment not qualified for the post accident containment environment but seismic qualification may very well be required.

Please feel free to contact us if further information or assistance is required.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ALL NUCLEAR POWER REACTORS HAVING AN OPERATING LICENSE

REQUEST FOR ACTION

Notice is hereby given that by petition dated January 3, 1977, Robert D. Pollard filed a request for action regarding all nuclear power reactors having an operating license. The requested action would affect:

Arkansas Power & Light Company

Arkansas Unit 1 (License No. DPR-51), Pope County, Arkansas.

PDR - Arkansas Polytechnic College, Russellville, Arkansas 72801

Baltimore Gas & Electric Company

Calvert Cliffs Units 1 and 2 (License Nos. DPR-53 and DPR-69),

Calvert County, Maryland. PDR - Calvert County Library, Prince

Frederick, Maryland 20678

Boston Edison Company

Pilgrim 1 (License No. DPR-35), Plymouth County, Massachusetts.

PDR - Plymouth Public Library, North Street, Plymouth, Massachusetts

Carolina Power & Light Company

Brunswick 1 and 2 (License Nos. DPR-71 and DPR-62), Brunswick County,

North Carolina. PDR - Southport - Brunswick County Library, 109 W.

Moore Street, Southport, North Carolina 28461

H. B. Robinson (License No. DPR-23), Darlington County, South

Carolina. PDR - Hartsville Memorial Library, Home & Fifth Avenues,

Hartsville, South Carolina 29550

Commonwealth Edison Company

Dresden 1, 2 and 3 (License Nos. DPR-2, DPR-19 and DPR-25),

Grundy County, Illinois. PDR - Morris Public Library, 604

Liberty Street, Morris, Illinois 60451

Quad-Cities 1 and 2 (License Nos. DPR-29 and DPR-30), Rock Island

County, Illinois. PDR - Moline Public Library, 504 - 17th Street,

Moline, Illinois 61265

Zion Units 1 and 2 (License Nos. DPR-39 and DPR-48), Lake County,

Illinois. PDR - Waukegan Public Library, 128 N. County Street,

Waukegan, Illinois 60085

Connecticut Yankee Atomic Power Company

Haddam Neck (License No. DPR-61), Middlesex County, Connecticut.

PDR - Russell Library, 119 Broad Street, Middletown, Connecticut 06457

Consolidated Edison Company of New York

Indian Point Units 1, 2 and 3 (License Nos. DPR-5, DPR-26 and

DPR-64), Westchester County, New York. PDR - Hendrick Hudson Free

Library, 31 Albany Post Road, Montrose, New York 10548

Consumers Power Company

Big Rock Point (License No. DPR-6), Charlevoix County, Michigan.

Charlevoix Public Library, 107 Clinton Street, Charlevoix,

Michigan 49720

Palisades (License No. DPR-20), Van Buren County, Michigan.

PDR - Kalamazoo Public Library, 315 South Rose Street, Kalamazoo,

Michigan 49006

Dairyland Power Cooperative

Lacrosse (License No. DPR-45), Monroe County, Wisconsin.

PDR - LaCrosse Public Library, 800 Main Street, LaCrosse,

Wisconsin 54601

Duke Power Company

Oconee Units 1, 2, and 3 (License Nos. DPR-38, DPR-47 and

DPR-55), Oconee County, South Carolina. PDR - Oconee County

Library, 201 S. Spring Street, Walhalla, South Carolina 29691

Duquesne Light Company

Beaver Valley 1 (License No. DPR-66), Beaver County, Pennsylvania.

PDR - Beaver Area Memorial Library, 100 College Avenue, Beaver,

Pennsylvania 15009

Florida Power Corporation

Crystal River 3 (License No. DPR-72), Citrus County, Florida.

PDR - Crystal River Public Library, Crystal River, Florida 32629

Florida Power and Light Company

St. Lucie 1 (License No. DPR-67), St. Lucie County, Florida.

PDR - Indian River Junior College Library, 3209 Virginia Avenue,

Ft. Pierce, Florida 33450

Turkey Point 3 and 4 (License Nos. DPR-31 and DPR-41), Dade

County, Florida. PDR - Environmental & Urban Affairs Library,

Florida International University, Miami, Florida 33199

Georgia Power Company

Edwin I. Hatch 1 (License No. DPR-57), Appling County, Georgia.

PDR - Appling County Public Library, Parker Street, Baxley,

Georgia 31513

Indiana & Michigan Electric Company

D. C. Cook 1 (License No. DPR-58), Berrien County, Michigan.

PDR - Maude Reston Palenske Memorial Library, 500 Market Street,

St. Joseph, Michigan 49085

Iowa Electric Light & Power Company

Duane Arnold (License No. DPR-49), Linn County, Iowa.

PDR - Cedar Rapids Public Library, 426 Third Avenue, S. E.,

Cedar Rapids, Iowa 52401

Jersey Central Power and Light Company

Oyster Creek 1 (License No. DPR-16), Ocean County, New Jersey.

PDR - Ocean County Library, 15 Hooper Avenue, Toms River, New

Jersey 08753

Maine Yankee Atomic Power Company

Maine Yankee (License No. DPR-36), Lincoln County, Maine.

PDR - Wiscasset Public Library Association, High Street,

Wiscasset, Maine 04578

Metropolitan Edison Company

Three Mile Island 1 (License No. DPR-50), Dauphin County,

Pennsylvania. PDR - Government Publications Section, State

Library of Pennsylvania, Box 1601 (Education Building),

Harrisburg, Pennsylvania 17126

Nebraska Public Power District

Cooper Station (License No. DPR-46), Nemaha County, Nebraska.

PDR - Auburn Public Library, 118 - 15th Street, Auburn,
Nebraska 68305

Niagara Mohawk Power Corporation

Nine Mile Point 1 (License No. DPR-63), Oswego County, New York.

PDR - Oswego City Library, 120 E. Second Street, Oswego, New York
13126

Northeast Nuclear Energy Company

Millstone 1 and 2 (License Nos. DPR-21 and DPR-65), New London

County, Connecticut. PDR - Waterford Public Library, Rope Ferry
Road, Route 156, Waterford, Connecticut 06385

Northern States Power Company

Monticello (License No. DPR-22), Wright County, Minnesota.

PDR - Environmental Conservation Library, Minneapolis Public
Library, 300 Nicollet Mall, Minneapolis, Minnesota 55401

Prairie Island 1 and 2 (License Nos. DPR-42 and DPR-60),

Goodhue County, Minnesota. PDR - Environmental Conservation
Library, Minneapolis Public Library, 300 Nicollet Mall,
Minneapolis, Minnesota 55401

Omaha Public Power District

Fort Calhoun (License No. DPR-40), Washington County, Nebraska.

PDR - Blair Public Library, 1665 Lincoln Street, Blair, Nebraska
68008

Pacific Gas & Electric Company

Humboldt Bay (License No. DPR-7), Humboldt County, California.
PDR - Humboldt County Library, 636 F Street, Eureka, California
95501

Philadelphia Electric Company

Peach Bottom 2 and 3 (License Nos. DPR-44 and DPR-56), York
County, Pennsylvania. PDR - Martin Memorial Library, 159 East
Market Street, York, Pennsylvania 17401

Portland General Electric Company

Trojan (License No. NPF-1), Columbia County, Oregon.
PDR - Columbia County Courthouse, Law Library, Circuit Court
Room, St. Helens, Oregon 97051

Power Authority of the State of New York

Fitzpatrick (License No. DPR-59), Oswego County, New York.
PDR - Oswego City Library, 120 East Second Street, Oswego, New
York 13126

Public Service Company of Colorado

Fort St. Vrain (License No. DPR-34), Weld County, Colorado.
Greeley Public Library, City Complex Building, Greeley,
Colorado 80631

Public Service Electric and Gas Company

Salem (License No. DPR-70), Salem County, New Jersey.
PDR - Salem Free Public Library, 112 West Broadway, Salem,
New Jersey 08079

Rochester Gas and Electric Corporation

R. E. Ginna 1 (License No. DPR-18), Wayne County, New York.
PDR - Lyons Public Library, 67 Canal Street, Lyons, New York
14489 and Rochester Public Library, 115 South Avenue, Rochester
New York 14627

Sacramento Municipal Utility District

Rancho Seco (License No. DPR-54), Sacramento County, California.
PDR - Sacramento City-County Library, 828 I Street, Sacramento,
California 95814

Southern California Edison Company

San Onofre 1 (License No. DPR-13); San Diego County, California.
PDR - Mission Viejo Branch Library, 24851 Christanta Drive,
Mission Viejo, California

Tennessee Valley Authority

Browns Ferry 1, 2 and 3 (License Nos. DPR-33, DPR-52, DPR-68),
Limestone County, Alabama. PDR - Athens Public Library, South
and Forrest, Athens, Alabama 35611

Vermont Yankee Nuclear Power Corporation

Vermont Yankee (License No. DPR-28), Windham County, Vermont.
PDR - Brooks Memorial Library, 224 Main Street, Brattleboro,
Vermont 05301

Virginia Electric & Power Company

Surry Units 1 and 2 (License Nos. DPR-32 and DPR-37), Surry
County, Virginia. PDR - Swem Library, College of William & Mary,
Williamsburg, Virginia 23185

Wisconsin Michigan Power Company

Point Beach Units 1 and 2 (License Nos. DPR-24 and DPR-27),
Manitowoc County, Wisconsin. PDR - Document Department,
University of Wisconsin - Stevens Point Library, Stevens
Point, Wisconsin 54481

Wisconsin Public Service Corporation

Kewaunee (License No. DPR-43), Kewaunee County, Wisconsin.
PDR - Kewaunee Public Library, 314 Milwaukee Street, Kewaunee,
Wisconsin 54216

Yankee Atomic Electric Company

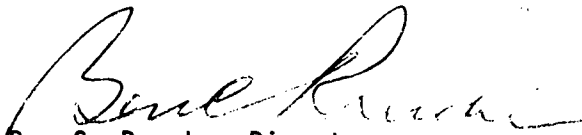
Yankee Rowe (License No. DPR-3), Franklin County, Massachusetts.
PDR - Greenfield Public Library, 402 Main Street, Greenfield,
Massachusetts 01581

In accordance with the procedures specified in 10 CFR 2.206
appropriate action will be taken on this request within a reasonable time.

Preliminary evaluation by Staff shows that no immediate action is
necessary.

A copy of the request is available for inspection in the Commission's
Public Document Room, 1717 H Street, N. W., Washington, D. C. 20555, and
at the above mentioned Local Public Document Rooms.

FOR THE NUCLEAR REGULATORY COMMISSION


Ben C. Rusche, Director
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland
this 14th day of January, 1977