Prepare reply + forward to Price for comment

OFFICERS
Ivan L. Bateman, President
John P. Gallagher, First Vice President
J. Dillon Kennedy, Second Vice President
C. E. Pray, Treasurer
Northcutt Ely, General Counsel
Alex Radin, General Manager

DIRECTORS
B. G. ADKINS
Superintendent, Electric Department
Danville, Virginia
IVAN L. BATEMAN
Chief Electrical Engineer and Assistant Manager
Department of Water and Power
Los Angeles, California
HOWARD A. BERRY
General Superintendent, Water and Electric Plant
Carthage, Missouri
CARL F. BUFE
Superintendent, Dept. of Municipal Service
Wyandotte, Michigan
M. L. BURGIN
Director of Public Utilities
Bloomington, Illinois
V. M. CLEAVELAND
Manager, PUD No. 1 of Clark County
Vancouver, Washington
JACK R. CRISWELL
Superintendent, Springfield Utility Board
Springfield, Oregon
DEWEY J. DeBOER
Executive Manager, Nebraska Public Power System
Columbus, Nebraska
MIKE DOWD
Executive Officer, Imperial Irrigation District
El Centro, California
O. E. EDDENS
Manager, Decatur Electric Dept.
Decatur, Alabama
JOHN D. FERGUSON
Superintendent, Department of Public Utilities
Tacoma, Washington
S. R. FINLEY
General Manager, Electric Power Board
Chattanooga, Tennessee
JOHN P. GALLAGHER
Director of Utilities
Piqua, Ohio
J. DILLON KENNEDY
Commissioner
Department of Electric and Water Utilities
Jacksonville, Florida
FRANCIS H. KING
Manager, Gas and Electric Dept.
Holyoke, Massachusetts
M. B. McCULLOUGH
General Manager, Municipal Power and Light
Lubbock, Texas
R. J. McMULLIN
General Manager, Salt River Project
Phoenix, Arizona
J. RAY MORTON
President, Light, Gas and Water Division
Memphis, Tennessee
RAY NIXON
Director, Department of Public Utilities
Colorado Springs, Colorado
C. E. PRAY
Manager of Collections and Accounts
Board of Public Utilities
Kansas City, Kansas
W. DAN SINCLAIR
Manager, Crisp County Power Commission
Cordele, Georgia
MERLE SMEDBERG
Superintendent, Board of Public Utilities
Jamestown, New York
RAFAEL URRUTIA
Executive Director
Puerto Rico Water Resources Authority
San Juan, Puerto Rico
JOHN E WALTERS
General Manager, Borough Electric Works
Wallingford, Connecticut
GLEN V. YARGER
Manager, Spencer Municipal Utilities
Spencer, Iowa

AFFILIATES:
Arizona Municipal Power Users' Association
California Municipal Utilities Assn.
Central Service Assn.
Colorado River Basin Customers Power, Inc.
Colorado Rural Electric Assn.
Florida Municipal Utilities Assn.
Illinois Municipal Utilities Assn.
Indiana Municipal Electric Assn.
Iowa Assn. of Municipal Utilities
Kansas Assn. of Municipal Utilities
Kansas Electric Cooperatives, Inc.
Massachusetts Municipal Electric Associations
Michigan Municipal Utilities Assn.
Midwest Electric Customers Assn.
Minnesota Municipal Utilities Assn.
Missouri Assn. of Municipal Utilities
Municipal Electric Assn. of Massachusetts
Nebraska Utilities Sec., League of Municipalities
Municipal Electric Utilities Assn. of N. Y. State
Northeast Ohio Municipal Electric Assn.
Northwest Ohio Municipal Electric Assn.
Northwest Public Power Assn.
Pennsylvania Municipal Utilities Assn.
Eurekite Services, Inc.
Tennessee Valley Public Power Assn
Texas Electric Cooperatives, Inc
Texas Municipal Utilities League
Virginia Municipal Electric Power Association
Washington Public Utility Districts' Assn.
Wisconsin Municipal Utilities Assn

AMERICAN PUBLIC POWER ASSOCIATION
919 EIGHTEENTH STREET NW WASHINGTON 6 DC
PHONE: MEtropolitan 8-4215

June 21, 1961

Mr. Loren K. Olson
Commissioner
U. S. Atomic Energy Commission
Washington 25, D. C.

Dear Loren:

The Atomic Energy Commission staff currently is reviewing the comments received on the proposed Reactor Site Criteria and I would like to draw your attention to what seems to me a serious anomaly in the Commission's approach to the allowable proximity of reactors to population.

I became particularly interested in this question when the Los Angeles-Pasadena and Jamestown proposals to AEC aborted due to site difficulties. Earlier, of course, the Piqua project encountered site problems but these were overcome, although in an awkward fashion.

I was surprised to discover that the Commission's strictures on locating reactors near population really do not mean much -- or at least they seem to me not to mean very much. The Commission staff and the ACRS are quite strict about enforcing prudent separation from population centers, and a "low population zone" surrounding the exclusion area, at the time that a proposed reactor site is up for approval. However, once the site is approved and construction started, apparently there is no further official concern with this factor. The Commission requires no real assurance that the boundary of the nearest center of population will stay the required distance from the reactor nor that the population of the "low population zone" will not increase.

Apparently, once a reactor is licensed, there may be nothing to prevent any number of "Levittowns" from being built throughout the "low population zone" nor to stop the nearest population center from growing right on out to the edge of the reactor exclusion area. At least, the Commission seems not to require any effective assurance that such developments will not occur.

RECEIVED
JUN 22 1961
OFFICE OF
CMSR. L. K. OLSON

A/2883

In other words, the Commission does not allow reactors to be built next to large populations but its procedures appear to permit large populations to be located next to reactors.

To state the situation harshly, the lack of visible intention to enforce the population criteria does seem to reduce them to a facade. As far as the municipal electric utilities are concerned, this facade has been effective in screening out several of their proposals while not blocking proposals made by privately owned and other utilities with more far-flung distribution systems. Yet, the latter apparently are under no compulsion to assure that the population requirements are still satisfied at the time their reactors are completed and during their operating lifetime.

This comment does not mean that I or the Association believe it is unnecessary to locate reactors away from centers of population. We do not have an expert judgment on this. What I do mean is that if the Commission believes that a prudent regard for the public health and safety requires the separation-from-population standards which have been used and are proposed, then the Commission should insure that these standards are maintained throughout the operating life of the facility or until it is evident they can be changed.

The present AEC policy, as I understand it, inevitably raises the question of whether the Commission takes seriously its own criteria.

I recognize that the question is by no means an easy one and that there are obvious difficulties in exercising effective long-term population control in areas not owned by the reactor operator. At the same time, I do not see how the Commission can ignore the problem.

Enclosed is a copy of my recent statement to the Joint Committee, which expresses the above thoughts in somewhat more diplomatic language.

Best personal regards.

Sincerely,

James L. Grahl
Director, Atomic Energy Service

JLG:ghz
enc.

STATEMENT OF JAMES L. GRAHL, DIRECTOR OF THE ATOMIC ENERGY SERVICE
OF THE AMERICAN PUBLIC POWER ASSOCIATION, WASHINGTON, D. C.
PRESENTED TO THE JOINT COMMITTEE ON ATOMIC ENERGY
JUNE 13, 1961

My name is James L. Grahl. I am Director of the Atomic Energy Service and Assistant General Manager of the American Public Power Association, which represents more than 1,000 local publicly owned electric utility systems in 43 States and Puerto Rico. Headquarters of the Association are at 919 Eighteenth Street, N. W., Washington 6, D. C.

On behalf of our Association, I want to express our appreciation for the Committee's invitation to present comments on the proposed reactor site criteria published by the Atomic Energy Commission on February 11, 1961.

We do have an interest in this matter and, without pretending to have an expert knowledge of this unusually complex problem, I will attempt to indicate some of the aspects of interest to local publicly owned electric systems.

Our membership is, of course, wholly in favor of whatever requirements are necessary for the public health and safety. A statement of general Association policy on atomic power adopted by our Board of Directors in 1956 stated that "the atomic power industry and related activities should be regulated with scrupulous care and impartiality to protect at all times the public health and safety". Consequently, we would support whatever site criteria are necessary to safeguard the public health and safety.

At the same time, the great majority of local public power agencies are municipally owned systems, and so the Association hopes that the site criteria for nuclear power plants will not make it economically impossible for large numbers of the municipal systems to utilize nuclear generating units when they are developed to the point of economic practicality.

There seems to be some conflict between these two positions. The Commission's proposed site criteria require nuclear power plants to be located some distance from the edge of a populated area, and for municipal power systems this distance requirement introduces costs and operating problems which in many cases would be prohibitive.

These distance requirements may well be necessary and prudent during the present developmental phase of power reactor technology. However, they should be recognized and established as criteria for this phase, and not regarded as necessarily establishing the pattern for nuclear power plant location for all time. Recognition of this fact might diminish considerably the concern with which many view the current and proposed requirements for locating reactors some distance from large or concentrated populations.

From our standpoint it would be most unfortunate if the proposed site criteria led to a conclusion at this time that nuclear power plants will always be impractical for those many municipal systems which cannot afford to locate their generating units a long distance from the edge of the city. We would hope that by the time economic plants have been developed, the technology would have advanced sufficiently to allow some easing of the distance criteria.

We recommend, therefore, that the AEC site criteria guides state explicitly that the criteria are those necessary or desirable during this developmental period -- that AEC will continue efforts to develop plants which are inherently safe enough so that at some future time distance from population may be less important -- and that the criteria therefore are subject to change in the future as the technology evolves and as further experience is gained in the design, construction and operation of nuclear reactors.

My second point is concerned with what seem to be some basic inconsistencies in the Commission's applications of distance requirements to nuclear reactor installations.

The Commission's policy on the proximity of reactors to population is defined in more detail in the proposed criteria than any other single factor. The criteria define with some care the requirements for a "low population zone" around a reactor and a "population center distance" from a reactor, yet it is my understanding that the Commission provisions for enforcing these requirements once an operating license has been issued are incomplete, at best.

To my knowledge, there is no definite requirement by the Commission which would prevent an industrial park or suburban housing development from springing up around a reactor, once it was licensed, and effectively abolishing the "low population zone" so carefully calculated as a requirement for issuing the license. Similarly, I understand that there is no Commission requirement which would prevent a center of population from expanding outward and decreasing or wiping out the minimum distance to the boundary of the nearest city which the Commission requires prior to granting a license.

That such development can and will occur seems certain. One possible example is furnished by a news story which appeared in the Chicago Tribune on February 2, 1961. The news item stated that "Plans for the development of more than 9,000 acres adjoining Commonwealth Edison company's Dresden nuclear power generating plant as an industrial district were announced yesterday by four Chicago real estate firms." This is a case of area development being planned before the nearby nuclear plant even gets its final operating license.

The proposed criteria do not indicate what the Commission does in a case like this. The industrial park near Dresden may pose no problem, but

what would be done in the event that a reactor site had been approved by AEC, the utility had virtually completed the plant, and then a real estate operator started building several thousand homes in the "low population zone" around the reactor? If the Commission were to issue the operating license anyway, it would have to ignore the requirements it previously said were necessary for public health and safety. If it denied the license or required the utility to add containment or operate the reactor at a lower power level, the financial hardship on the utility and its customers could be substantial.

A more likely possibility is that real estate development and outward growth of the nearest population center will occur after a reactor has been licensed and gone into operation. If the Commission's criteria are to be meaningful, it would seem necessary either to prevent such development, withdraw the operating license or require changes in containment or power level to compensate for the shrinkage in the "low population zone" and in the distance to the edge of the nearest population center. However, it is my understanding that the Commission does not have plans for such enforcement actions once a nuclear plant goes into operation.

If the proximity of population to a reactor is as important to public safety as the Commission's proposed criteria indicate, there should be some means established for enforcing them for the period of the operating license -- or until there are solid grounds for amending the license requirements. If the criteria are not to be enforced, it is not clear what is gained by establishing them in the first place.

There seems to be another inconsistency, as far as remoteness from population is concerned, in the Commission attitude in respect to nuclear-powered civilian ships, which the Commission and the Maritime Administration are attempting to develop. If such ships are to be of practical use, presumably

they will have to enter populous harbors on a regular basis, and this implies a different policy for mobile reactors than for stationary reactors despite the greater possibilities for accidents with the former.

To illustrate the point, if one applies the examples cited in Appendix "A" of the proposed criteria to the 70,000 thermal kilowatt U.S.S. Savannah reactor, it should be surrounded by a controlled exclusion area of more than 800 feet in radius and by a "low population zone" about 1.6 miles in width, and should remain at least 2.1 miles from the outer edge of any large city. Obviously, no such requirements are contemplated.

I recognize that the Savannah has been designed and built with special features to enhance the inherent safety of the power plant and, furthermore, that a ship would be in port and near population only intermittently. Nevertheless the Navy apparently believes that its nuclear-powered vessels, also designed for maximum safety, require special operating limitations. Last year, Admiral H. G. Rickover testified that the Navy has been issued orders that "there must be an actual military or national necessity before a nuclear ship can go into a populated harbor".

It is not clear why the Commission should have what seems to be a different attitude toward distance from population for civilian nuclear ships than it does for stationary reactors.

The lack of population control in the vicinity of a reactor once the site has been approved and the license issued, and the seemingly different philosophies which AEC applies to stationary and civilian ship reactors appear to us to raise basic questions about the site criteria applying to the proximity of reactors to population. In raising these questions, we do not mean to imply that we are opposed to the separation of reactors from population centers. We do believe that whatever criteria are applied should be reasonably clear, consistent and enforceable.