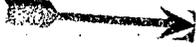


FEB 14 1974

Docket No. 50-331



Honorable William N. Plymat
Iowa State Senate
State House
Des Moines, Iowa 50319

Dear Senator Plymat:

We are pleased to respond to your letter of February 1, 1974, which has been referred to this office for reply. In your letter, you indicated that you are a sponsor of a bill calling for a moratorium on the construction of nuclear power plants and requested that the Atomic Energy Commission (AEC) send you information that the AEC may have relative to your needs.

With respect to your inquiry on nuclear power plants located in the State of Iowa, our records show that the Duane Arnold Energy Center (DAEC) is the only nuclear power plant in the State of Iowa at this time. The DAEC is a boiling water reactor nuclear power plant with an electric generating capacity of about 589 Megawatts. It is located in Linn County, Iowa, about 2-1/2 miles north northeast of the village of Palo, Iowa, and 8 miles northwest of Cedar Rapids, Iowa. The applicants for this plant include the Iowa Electric Light and Power Company, the Cornbelt Power Cooperative and the Central Iowa Electric Cooperative. Construction and preoperational testing of all the subsystems of this plant are nearing completion and the AEC expects to issue a license authorizing operation of this plant in February 1974.

Although we do not have an application for any other plant from utilities located in the State of Iowa at this time, we understand that negotiations are in progress for a second nuclear plant to be located in the State of Iowa and that an application for the required construction permits for this plant will be filed with the AEC within the next year or so.

With respect to your reference to an AEC undertaking relative to a "...sophisticated system of gathering information instantly in order to warn the public of radiation dangers," we believe that this is the AEC's Atmospheric Release Advisory Capability (ARAC), a brief description for which is contained in the 1973 "Annual Report to Congress," Volume 1, Page 63. We are enclosing a copy of this report for your information. You should understand that the ARAC program

Copy sent PDR

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DATE➤						

at this time is in a preliminary state of development. The objectives of this program include determining the feasibility and usefulness of the ARAC system toward providing prompt and accurate forecasts of the path of the radioactive material and rapid assessment of the release quantity, atmospheric transport, dispersion, and removal. If found to be feasible, this system when operational could also provide for a continuous monitoring of all airborne releases from nuclear power plants regardless of their amounts, i.e., including routine releases from normal operations as well as accident releases.

In the course of the AEC's (Regulatory staff) review of the application for an operating license for the DAEC, a Safety Evaluation Report dated January 23, 1973, and Final Environmental Statement dated March 1973 were prepared. A copy of both of these reports is enclosed for your information.

You will note that Chapter 15 of the Safety Evaluation Report discusses the radiological consequences of design basis accidents. In addition, the environmental impacts of the design basis accidents are addressed in Chapter 7 of the Final Environmental Statement.

With respect to your inquiry on the area of evacuation that may be involved in the event of an accident, the Regulatory staff considers evacuation and other suitable protective measures for those members of the public located within the low population zone (LPZ), which for the DAEC is 6 miles. The speed and duration of any evacuation of the LPZ are variables that can be meaningfully defined only when the parameters of the extremely unlikely accident, requiring evacuation, are known. You will find discussions on this subject contained in Chapter 2 of the Safety Evaluation Report. In addition, the AEC's regulations in 10 CFR Part 50, Appendix E, require all applicants and licensees to develop emergency plans to deal with emergencies relating to the operation of nuclear power plants. A discussion of this subject is contained in Chapter 13 of the Safety Evaluation Report.

You also requested information on the estimates of maximum and minimum dollar damage that could occur in the event of a major accident at the DAEC. As you are aware, assigning dollar values to the consequences of postulated accidents cannot be accomplished in any meaningful way because of the large number of variables that are involved. The AEC's view is that the risk from high cost consequences of accidents are made acceptably small because the likelihood of these kinds of accidents is extremely remote. Some discussion along these lines is contained in Chapter 11 "Cost Benefit Summary" of the Final Environmental Statement.

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DATE➤						

FROM **William N. Plymat**
Iowa State Senator

CONTROL NUMBER
6652

FILE LOCATION
 ACTION COMPLETION DEADLINE
2/12/74

TO
AEC

DATE OF DOCUMENT
2/1/74

ACTION PROCESSING DATES
 Acknowledged _____
 Interim Reply _____
 Final *K/B* _____

PREPARE FOR SIGNATURE OF:
 _____ Chairman
 _____ Director of Regulation
X Giambusso

DESCRIPTION **Ltr** Original Copy Other

re public hearing on a bill calling for a moratorium on const. of nuclear power plants scheduled for 2/14/74 - req info on any proposed nuclear plants for Iowa, evacuation in event of a major accident at the Duane Arnold plant, & a copy of the report re planned system of warning. Info requested before hearing date

REMARKS
Note: Report referred to is mentioned in Operations Annual Report, page 63.

REFERRED TO	DATE	IS NOTIFICATION TO THE JCAE RECOMMENDED? _____
Giambusso f/action	2/6/74	
<i>T. J. ...</i>	<i>1/11</i>	Cys: O'Leary Docket Files) FDR) 50-331 LFDR
<i>W. Butler</i>	<i>2-6-74</i>	

Honorable William N. Plymat - 3 -

I hope this provides you with the information that you require. Please feel free to contact me in the event you require clarifying information.

Sincerely,

Original signed by:
Roger S. Boyd

A. Giambusso, Deputy Director
for Reactor Projects
Directorate of Licensing

Enclosures:

1. Annual Report to Congress - 1973
2. Safety Evaluation Report for DAEC dated January 23, 1973
3. Final Environmental Statement for DAEC dated March 1973

Distribution:

AEC PDR
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LWR 1-2 File
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LWR 1&2 BCs

OFFICE	L: LWR 1-2	ADLWBS1	OGC	L: RP		
SURNAME	WButler:mg	RDeYoung	Jal	AGiambusso		
DATE	2/8/74	2/13/74	2/13/74	2/14/74		

OUR LIBERTIES WE PRIZE AND OUR RIGHTS WE WILL MAINTAIN



WILLIAM N. PLYMAT
STATE SENATOR
Thirtieth District
POLK COUNTY
DES MOINES, IOWA

COMMITTEES

CITIES AND TOWNS*
APPROPRIATIONS
HUMAN RESOURCES
WAYS AND MEANS

*RANKING MEMBER

The Senate

STATE OF IOWA

Sixty-Fifth General Assembly

STATE HOUSE

Des Moines, Iowa 50319

February 1, 1974

AIR MAIL

Atomic Energy Commission
Washington, D. C. 20545

Gentlemen:

The Iowa Senate is having a public hearing on a bill calling for a moratorium on the construction of nuclear power plants. This hearing will be on February 14th. Both proponents and opponents will present information.

I am a sponsor of this bill. I understand at the present there is only one nuclear power plant operating in Iowa and that is near Cedar Rapids. I would like to know if any other power plants are being proposed for Iowa at this time and are under consideration of your agency so far as a license is concerned. #1

I noted in the newspaper last night that your agency is going to respond to the matter of possible accidents in nuclear power plants and is undertaking to set up a sophisticated system of gathering information instantly in order to warn the public of radiation dangers, etc. I realize that the amount of danger would probably be not only in relation to the size of the power plant facility, but also the nature of a possible accident. I realize that the possibility is very unlikely. #2

However, I would like to know in the event of a major accident at the Palo plant near Cedar Rapids, what the range might be from a possible minimum to a possible maximum so far as both the area of evacuation that might be involved and the speed with which such evacuation would have to take place. I would also like to know how long a period of evacuation would be required with perhaps an estimate of a maximum and minimum. Finally, if it would be possible to make any kind of an estimate of maximum and minimum dollar damage that would occur, I would like information on this. #3 #4 #5

Rec'd
Date 2/6/74
Time 8:50 a.m.

DR- 6652

Rec'd Off. Dir. of Reg
Date 2/5/74
Time 2:00

Page 2
Atomic Energy Commission
February 1, 1974

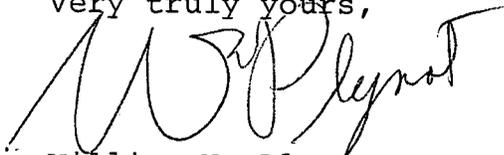
Page 13
OPERATIONS
PRINCIPAL
APP
H

I would like to receive a copy of the report which was referred to in the press yesterday which related to your planned system of warning.

I would like to have whatever of the foregoing information you can obtain quickly, and would not want the reply to be held up until all the information requested was put together.

It would be especially helpful if I could get this information very promptly and well before the date of the February 14th public hearing in our Senate. Your cooperation will be appreciated.

Very truly yours,



William N. Plymat

WNP/gr