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Mr. Muller		1	1				
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			2	50-331			
DESCRIPTION: Ltr re our 11-20-72 ltr.....furnishing comments Draft Enviro Statement for the Duane Arnold Energy Center.....				ENCLOSURES:  <b>Do Not Remove ACKNOWLEDGED</b>			
PLANT NAMES: Duane Arnold							

FOR ACTION/INFORMATION

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# United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

ER 72/1342

FEB 5 1973



Dear Mr. Muller:

50-331

This is in response to your letter of November 20, 1972, requesting our comments on the Atomic Energy Commission's draft statement, dated November 1972, on environmental considerations for Duane Arnold Energy Center, Linn County, Iowa.

Our comments are presented according to the format of the statement or according to specific subjects.

## Historic and Archeological Landmarks

Since the power plant is more than 60 percent complete, most of the environmental effects resulting from plant construction have been experienced. Further construction and operation of the nuclear power plant will not affect any existing or proposed units of the National Park System nor any site eligible for registration as National Historic, Natural or Environmental Education Landmarks.

## Geology and Seismology

The brief description of the geology and seismology presented in the draft statement is inadequate for an independent assessment of the geologic environment relevant to the proposed construction of the plant. We think that the physical properties of the geologic materials on which the plant and its appurtenant structures will be founded should be described along with an indication of how a knowledge of the physical properties were used in the design of the facility. The seismic-design criteria and the methods of their derivation should also be included.

The draft statement refers to the applicant's Safety Analysis Report to the AEC that treats the details of the geologic and seismologic investigations and analyses

that have been performed for the plant. We suggest that, as a minimum, a more comprehensive summary of the geologic and seismologic analysis sections of the Safety Analysis Report be included in the final environmental statement with adequate cross references to appropriate parts of the environmental statement to indicate how the data and analyses have been utilized for purposes of design and construction.

As a result of procedures established between the Geological Survey and the AEC, we have previously reviewed the geologic aspects of the site that are included in the Safety Analysis Report. The Geological Survey's comments were transmitted to the AEC Director of Regulation on October 8, 1969, and was made part of the public record in the AEC licensing procedures.

#### Hydrology

The applicant and AEC should remain cognizant of any future surface or ground-water developments located downgradient from the plant and update appropriate monitoring systems as needed.

#### Chemical and Biocide Systems

The defouling method described on page 3-35 specifies a liquid chlorine treatment dose of 5 ppm at the condenser inlet with a chlorine residual at the outlet of 0.1 ppm. Since chlorine is extremely toxic to aquatic organisms consideration should be given to completely eliminating it from the discharge. Therefore we think that consideration should be given to constructing an impoundment or other devices that would result in the elimination of chlorine, other biocides and residual chemical salts in the plant effluent.

#### Effect on Land Use

The impacts of the transmission facilities on public areas such as parks, wildlife, recreation and wooded areas are described on page 4-1 as minimal. We do not consider this an adequate description of the environmental impacts and suggest that a more adequate assessment of these impacts be given in the final environmental statement.

Present Land Use plans for the 500-acre project site will involve about 40 acres for plant facilities and the remaining 460 acres will be allowed to revert to natural vegetation. We

believe that a land use plan which would enhance the indigenous wildlife populations and the aesthetic appeal of the site should be considered. Also, controlled public hunting should be considered where this activity is compatible with the safety limitations of the plant. We suggest that the applicant contact State and local planning authorities to determine the type of facilities that could be developed to serve the recreational needs of the area.

Since the Pleasant Creek Reservoir will become an integral part of the plant operation, it should be described beyond that given on page 2.1 of the draft environmental statement. The reservoir site, water supply, water level regulation, other physical and operational details and the beneficial and adverse environmental impacts of construction and operation of the reservoir should be included in the statement. Its recreational development should be meshed with those of the plant site and the surrounding recreational areas.

This Department through the Bureau of Outdoor Recreation has received correspondence from the State regarding funding assistance for the proposed reservoir and is withholding a decision pending receipt of a description of the proposal. We have reservations for funding a project where the applicant would have a right to drawdown the reservoir during the recreation season and to construct a 345 kv overhead transmission line which would cross one arm of the reservoir.

#### Effluent and Environmental Monitoring Programs

We are pleased that the postoperational radiological and ecological monitoring and biological surveys will be conducted at the same intensity and thoroughness as the preoperational studies; however, we think that the applicant should also have contingency plans for increasing the number of sampling stations or intensity of sampling at the present stations if unexpected adverse effects are experienced. These plans should be described in the final statement.

#### Plant Accidents

This section contains an adequate evaluation of impacts resulting from plant accidents through Class 8 for

airborne emissions. However, the environmental effects of releases to water is lacking. Many of these postulated accidents listed in table 7.2 could result in releases to the Cedar River and should be evaluated.

We also think that Class 9 accidents resulting in both air and water releases should be described and the impacts on human life and the remaining environment discussed as long as there is any possibility of occurrence. The consequences of an accident of this severity could have far-reaching effects on land and in the Cedar, Iowa and Mississippi Rivers systems which could persist for centuries.

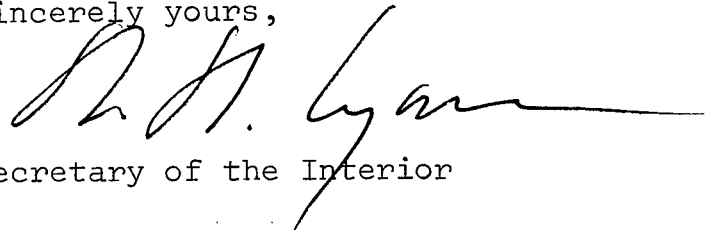
#### Alternative Means of Power Generation

The emissions of an alternative coal-fired powerplant which are based on the EPA new source performance standards promulgated in December 1971 are included on page 9-7. We suggest that the specific limiting values for emission control be given in this section, perhaps a footnote to table 9.3 would be appropriate.

If State and local emission control regulations are stricter than the EPA regulations these limiting values should also be given. If there are no State or local regulations or if they are less limiting than the EPA regulations, the statement should so indicate.

We hope these comments will be helpful to you in the preparation of the final environmental statement.

Sincerely yours,



Deputy Assistant

Secretary of the Interior

Mr. Daniel R. Muller  
Assistant Director for  
Environmental Projects  
Directorate of Licensing  
U.S. Atomic Energy Commission  
Washington, D. C. 20545

