

AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL
(TEMPORARY FORM)

CONTROL NO: 5763

FROM: Argonne National Laboratory Argonne, Illinois 60439 Kerry D. Dance		DATE OF DOC: 11-10-72	DATE REC'D 11-13-72	LTR X	MEMO	RPT	OTHER
TO: Mr. Francis St. Mary		ORIG 1	CC	OTHER	SENT AEC PDR X SENT LOCAL PDR X		
CLASS: <u>U</u> PROP INFO		INPUT	NO CYS REC'D 1	DOCKET NO: 50-331			

DESCRIPTION:
Ltr trans the following:

ENCLOSURES:
Copies of ltrs which were used in preparing the Enviro Statement.

NOTE: See Attached page for list of enclosures

(1 cy of ea encl rec'd)

PLANT NAMES: Duane Arnold

DO NOT REMOVE
ACKNOWLEDGED

FOR ACTION/INFORMATION				11-14-72	AB
BUTLER(L)	SCHWENCER(L)	SCHEMEL(L)	KNIGHTON(E)		
W/ Copies	W/ Copies	W/ Copies	W/ Copies		
CLARK(L)	STOLZ(L)	ZIEMANN(L)	YOUNGBLOOD(E)		
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GOLLER(L)	VASSALLO(L)	CHITWOOD(FM)	REGAN(E)		
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KNIEL(L)	H. DENTON	DICKER(E)			
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INTERNAL DISTRIBUTION

<u>REG FILE</u>	TECH REVIEW	VOLLIMER	HARLESS	WADE	E
AEC PDR	HENDRIE	DENTON		SHAFFER	F & M
OGC, ROOM P-506A	SCHROEDER	GRIMES	F & M	BROWN	E
MUNIZING/STAFF	MACCARY	GAMMILL	SMILEY	G. WILLIAMS	E
CASE	LANGE	KASTNER	NUSSBAUMER	E. GOULBOURNE	L
GIAMBUSSO	PAWLICKI	BALLARD		A/T IND	
BOYD-L(BWR)	SHAO	FINE	LIC ASST.	BRATTMAN	
DEYOUNG-L(PWR)	KNUTH		SERVICE L	SALTZMAN	
SKOVHOLT-L	STELLO	ENVIRO	MASON L		
P. COLLINS	MOORE	MULLER	WILSON L	PLANS	
REG OPR	HOUSTON	DICKER	MAIGRET L	MCDONALD	
FILE & REGION (2)	TEDESCO	KNIGHTON	SMITH L	DUBE	
MORRIS	LONG	YOUNGBLOOD	GEARIN L		
STELLE	LAINAS	PROJ LEADER	DIGGS L	INFO	
	BENAROYA		TEETS L	C. MILES	
		REGAN	LEE L	BUTLER	

EXTERNAL DISTRIBUTION

- 1-LOCAL PDR Cedar Rapids, Iowa
- 1-DTLE (ABERNATHY)
- 1-NSIC (BUCHANAN)
- 1-ASLB-YORE/SAYRE WOODWARD/H. ST.
- 16-CYS ACRS HOLDING
- (1) ~~(50) 69~~ - NATIONAL LAB'S ANL
- 1-R. CARROLL-OC, GT-B227
- 1-R. CATLIN, E-256-GT
- 1-CONSULANT'S NEWMARK/BLUME/AGABIAN
- 1-PDR-SAN/LA/NY
- 1-GERALD LELLOUCHE BROOKHAVEN NAT. LAB
- 1-AGMED (WALTER KOESTER, Rm C-427, GT)
- 1-RD...MULLER...F-309GT

LIST OF ENCLOSURES TO LETTER FROM ARGONNE NATIONAL LABORATORY DATED 11-10-72

1. Ltr dtd 8-8-72 from State Department of Health to A. Thomas Wallace
2. Ltr dtd 9-11-72 from Sierra Club Iowa Chapter to Mr. Kerry Dance
3. Ltr dtd 9-8-72 from Iowa Conservation Commission to Mr. Kerry Dance
4. Ltr dtd 9-5-72 from The University of Iowa to Mr. Kerry Dance
5. Ltr dtd 6-22-72 from City of Cedar Rapids, Iowa to Mr. Hillis M. Gill
6. Ltr dtd 6-15-72 from Town of Palo to Mr. Hillis M. Gill
7. Ltr dtd 6-8-72 from Linn County, Iowa to Mr. Hillis M. Gill
8. Ltr dtd 12-4-70 from Bechtel Corporation to C. W. Sanford
9. Ltr dtd 7-15-70 from Bechtel Corporation to R. M. Rosauer
10. Ltr from the State Department of Health to Mr. Gordon Cook, dtd 2-20-70
11. Ltr from the Bechtel Corporation to R. M. Rosauer, dtd 12-23-69

LB



U of C-AUA-USAEC

ARGONNE NATIONAL LABORATORY

November 10, 1972

Mr. Francis St. Mary
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D. C. 20545

50 - 331

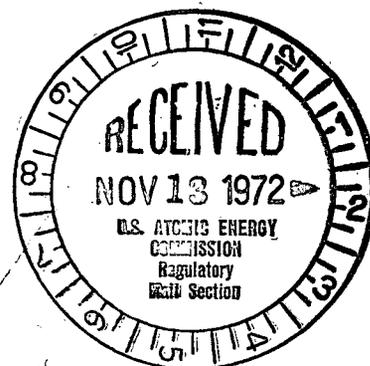
Dear Saint:

Enclosed are copies of some letters which we used in preparing the Environmental Statement. They should probably be added to the Duane Arnold Docket.

Sincerely,

Kerry D. Dance
Environmental Statement Project

KD:tk
Enc.



Iowa

State Department of Health

Lucas State Office Building
DES MOINES, IOWA 50319

Environmental Engineering Service

Kenneth H. Karch, M.P.H., M.S., P.E.,
Chief

8 August 1972

A. Thomas Wallace, Jr.
Federal Funds Coordinator
Office for Planning and Programming
State Capitol Building
L O C A L

Re: Duane Arnold Energy Center
Iowa Electric Light & Power
Palo, Iowa
PNRS 720325

Dear Mr. Wallace:

This is in reply to your request as to the status of review of the above project.

Sewage Waste Permit No. 70-28-S was granted February 20, 1970 by the Iowa State Department of Health to authorize the use of extended aeration treatment facilities for the Duane Arnold Energy Center.

Permit No. 71-56-S was granted April 14, 1971 by the Iowa State Department of Health for the disposal of thermal and liquid radioactive wastes.

State certification was issued April 12, 1971 by the Iowa Water Pollution Control Commission under provision of Section 21(b) of the Federal Water Pollution Control Act. This certification indicated there was reasonable assurance that thermal, radioactive and domestic sewage discharges will not violate applicable Iowa Water Quality Standards.

These permits and certification were issued based on information submitted in the Applicant's application, the Safety Evaluation by the Atomic Energy Commission and the Public Health Review by the Public Health Service.

At present there are no state regulations relating to the emission of radioactive materials or ionizing radiation in effect. With respect to this project, reliance must be placed on the regulations and restrictions established by federal agencies applicable to radiation emissions. The proposal indicates that measures are being provided that will keep the radiation emissions well within these federal requirements.

Review has also been made of the Federal Safety Analyses Report received by the Department in May 1972 as well as the revised Environmental Report and we conclude that the construction and operation of the Duane Arnold Energy Center nuclear power plant will not adversely effect the environment.

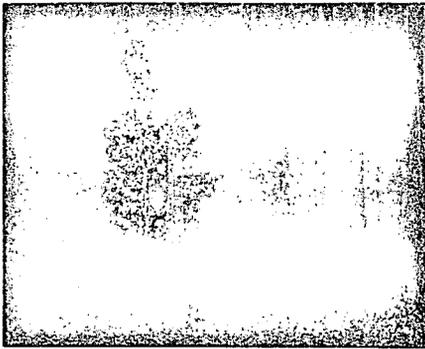
Very truly yours,

R. J. Schliekelman, P.E., Director
Regional Programs

RJS/ab
CC: Ted Lewis, Iowa Electric Light & Power
Regional Office No. 1, S.D.II.

ER p. 3.5-2,3

Fred Evans
5/15/72
271 3045



SIERRA CLUB IOWA CHAPTER

*. . . to explore, enjoy and
protect our natural environment*

11 September 1972

Mr. Kerry Dance
Environmental Statement Project
Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439

Dear Mr. Dance:

I am responding to your request for comments about the Duane Arnold Energy Center. I discussed the matter with several members of the Iowa Chapter of the Sierra Club and other environmental organizations. We would like to reserve the right to present a position paper on the environmental aspects of the Energy Center. At the moment it would appear that our interests fall into three categories: (1) the matter of thermal pollution; (2) the matter of large scale radioactive accidents; and (3) the matter of transportation of radioactive waste material. It seems very likely that we will be asking for detailed presentations with regard to the last two categories.

Sincerely,

John S. Neff

COMMISSIONERS

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WILLIAM E. NOBLE—OELWEIN



FRED A. PRIEWERT, DIRECTOR
300 FOURTH STREET, DES MOINES, IOWA 50319
515/281-5145

September 8, 1972

Mr. Kerry Dance
Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439

Dear Mr. Dance:

We appreciate your phone call of September 7th concerning your earlier request for information about the Pleasant Creek Reservoir Project. As I emphasized on the telephone, the project is in a very preliminary stage both as to its engineering and recreational aspects. Thus, detailed questions relating to these areas are difficult to answer at this time.

When the project is further along we will be able to provide you with answers to questions that you may have concerning it. In any event, please do not hesitate to write or call at any time.

Sincerely,

A handwritten signature in cursive script that reads "James E. Scheffler".

James E. Scheffler, Resource Planner
Iowa Conservation Commission

JES/ns
cc

THE UNIVERSITY OF IOWA

IOWA CITY, IOWA 52240



Department of Anthropology

September 5, 1972

Mr. Kerry Dance
9700 South Cass
Augonne, Illinois 60439

Dear Mr. Dance:

An examination of the Duane Arnold Energy Center area reveals no sites of archaeological or historical significance which are likely to be affected by construction. Should archaeological remains be uncovered during any phase of work there, please inform the Office of State Archaeologist, 129 South Capitol Street, Iowa City.

Sincerely,

A handwritten signature in cursive script that reads "Adrian D. Anderson".

Adrian D. Anderson
State Liaison Officer

ADA:pas

CITY OF CEDAR RAPIDS, IOWA

Commission Form of Government

OFFICE OF THE MAYOR

June 22, 1972

Mr. Hillis M. Gill
Vice-President
Iowa Electric Light and Power Company
General Office
Cedar Rapids, Iowa

Dear Mr. Gill:

I am forwarding this letter to you regarding Atomic Energy Commission requirements that there shall be satisfactory assurance that the local landscape in the area surrounding an atomic energy plant will not seriously be impaired because of the presence of such a plant.

After having reviewed the artist's drawings and architectural plans, I believe the following statement is in order.

I, Mayor Donald J. Canney, Mayor of Cedar Rapids, Iowa, after reviewing the final architectural design, and after having viewed the Duane Arnold Energy Center during its construction, believe the Duane Arnold Energy Center to have an aesthetically pleasing design and do not believe it will detract from the scenic qualities in the area.

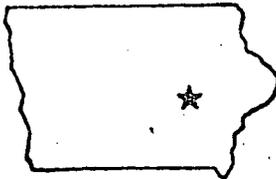
Yours for a better Cedar Rapids,



Donald J. Canney
Mayor

DJC:sp

TOWN OF PALO



PALO, IOWA 52324

June 15, 1972

Iowa Electric Light and Power Company
General Office
Cedar Rapids, Iowa

Attn: Mr. Hillis M. Gill, Vice President

Dear Mr. Gill,

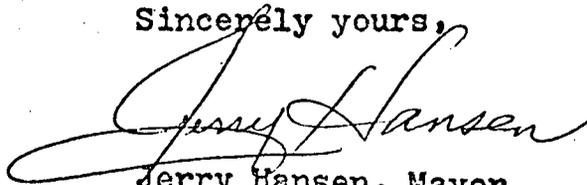
I have personally been involved with the construction of the Duane Arnold Energy Center located near Palo, Iowa, from the time construction started.

I whole heartedly believe, if this unit was located in any area, it would enhance the surrounding area.

The design of this unit lends its appearance to a large modern factory or office building. I believe the average layman would not realize that this facility is a Nuclear Power Generating Station. Its outwardly appearance certainly does not look like the conventional power producing facilities.

I have viewed the final architectural design. I sincerely believe it to be aesthetically pleasing design and do not believe it will detract from the scenic qualities in the area.

Sincerely yours,



Jerry Hansen, Mayor
Town of Palo, Iowa

BOARD OF SUPERVISORS

LINN COUNTY, IOWA

Cedar Rapids

GEO. W. CLIFFORD

COURT HOUSE

June 8, 1972

Mr. Hillis M. Gill
Iowa Electric Light and Power Company
Cedar Raoudsm Uiwa

Dear Mr. Gill:

I have viewed the Duane Arnold Energy Center during construction and have seen the final architectural design. I believe it to be an aesthetically pleasing design and do not believe it will detract from the scenic qualities in the area. I also believe it will be an asset to the community.

Very truly,

Geo. W. Clifford

George W. Clifford, Chairman
Linn County Board of Supervisors

GC/myk

Bechtel Corporation

Engineers - Constructors

Fifty Beale Street
San Francisco, California 94119



Please reply to:
P. O. Box 209, Palo, Iowa 52324

December 4, 1970

Mr. C. W. Sandford,
Vice President - Engineering
Iowa Electric Light and Power Company
P. O. Box 351
Cedar Rapids, Iowa 52406

Attention: Mr. Herb Herold

DABC-IE-126
Duane Arnold Energy Center
RE: Sand Quantities Dredged
From Cedar River

Gentlemen:

Transmitted herewith for your information and records are two (2) letters stating quantities of sand dredged from the Cedar River during the years 1969 and 1970.

To clarify the yardage quantities and the year dredged, we provide the following break down.

Year

1969 Item #8 of 12-23-69, inter-office memorandum, 129,330 cubic yards placed over the construction area, however 10,000 cubic yards of this was alluvium from the required excavation. Therefore, only 119,330 cubic yards of sand was removed from the river in this time. 119,330 cubic yards

1969 Item #10 of 12-23-69, inter-office memorandum, 44,810 cubic yards dredged into a stockpile immediately east of the construction area. 44,810 cubic yards

Total 1969

164,140 cubic yards

DABC-IE-126
December 4, 1970
Page 2

Year

1970 Reference 7-15-70, inter-office memorandum, 214,000 cubic yards of sand was stockpiled east of the construction area and 51,000 cubic yards stockpiled south of the construction area along the east side of the railroad embankment. However the 214,000 cubic yards quantity includes the 44,810 cubic yards stated in item number 10 of the 12-23-69, inter-office memorandum and therefore the net 1970 yardage in the east stockpile is 169,190. This plus the 51,000 cubic yards in the south stockpile accounts for 220,190 cubic yards of sand removed from the river in 1970.

Total 1970	220,190 cubic yards
Total 1969 and 1970	384,330 cubic yards

Please advise if further backup data is required and/or if further clarification is necessary.

Very truly yours,

BECHTEL CORPORATION


J. M. Reimers,
Project Superintendent

JMR:GLF:1jj

Enclosures: Bechtel Inter-office Memorandums dated 12-23-69 and 7-15-70

cc: S. M. Cott
G. L. Parkinson
K. V. Harrington

Bechtel Corporation

Inter-office Memorandum

To	R. M. Rosauer	Date	July 15, 1970
Subject	Duane Arnold Energy Center Subcontract 7884-C-1 Blackhawk Dredging Co.	From	J. M. Reimers
		Of	P & I Construction
Copies to	G. L. Parkinson G. L. Fouts H. C. Fifer W. F. Adams	At	Job 7884 Palo, Iowa Ext. 221 & 223

On July 14, 1970, we discussed completed quantities of sand dredged to the East and South stockpiles by Blackhawk Dredging Company.

Blackhawk agreed to 214,000 cy in the East stockpile and 51,000 cy in the South stockpile. Blackhawk's and Bechtel's surveys indicated 214,000 cy in the East stockpile. Blackhawk's surveyors determined 54,000 cy in the South stockpile, while Bechtel's surveyor's showed 51,000 cy. Blackhawk agreed to accept the 51,000 cy figure.

Mr. Harold Mook, Blackhawk Dredging Co. Superintendent, stated he would bill Peter Kiewit Son's Co. for dredging 265,000 cy of sand into stockpile.


J. M. Reimers

JMR:HCF:bjb

The tree cutting methods employed consist of using stereo photographs, the walking of the line by company personnel, and the employment of ground survey teams. These three sources of input are combined to arrive at a minimum path to be selected for the use of construction equipment. Wherever possible, the existing farmer's lanes, access roads to his fields or to the wooded areas are used. Where these cannot be used, the contractor is limited to a 20 ft. right-of-way width between structures on the right-of-way itself. The trees are cut to allow the erection of the structures, and in obvious locations, the trees are trimmed to allow conductor stringing. Just prior to conductor stringing, the area is once more gone over, and any additional trimming that may be necessary is taken care of. After the conductors are in the air and to final construction specifications, the final trimming is handled to provide electrical clearance from the conductors. The maximum growth that is cut back is an average of 2 to 3 years so that the need for re-entering the property for trimming purposes or the severe cutting of trees is eliminated.

No chemicals are used to prohibit growth of the vegetation around the structures or underneath the conductors. All natural vegetation is allowed to re-establish itself, and if it has been severely damaged, it is replaced. Any areas that are in danger of washouts or erosion from loss of vegetation are treated when the construction is completed in that area.

The construction specifications specify that the contractor shall not use all of the existing right-of-way that we may have acquired and that he is to limit himself to designated entrances and exits and to an area that is 20 ft. in width within the right-of-way. The contractor, in the specifications, is further instructed that in the erection of H-frame structures or single pole structures that tangent structures shall be held to a ± 3 " per 100 ft. in the allowable vertical deviation.

The company routinely air patrols these structures, and any structures that are out of plumb are reported. The use of our construction supervisors during construction and for further routine inspection is employed on these lines, and any structures that are in need of straightening are thoroughly investigated from an engineering standpoint, and then corrective measures are taken, and the structure is once again returned to its original condition. The maximum allowable for a line that has been in service is ± 6 " out of plumb.

David M. Martin
8/24/1972

State Department of Health

A-121

LUCAS STATE OFFICE BUILDING

DES MOINES, IOWA 50319

Environmental Engineering Service

JAMES F. SPEERS, M.D., M.P.H.
COMMISSIONER OF PUBLIC HEALTH

February 20, 1970 P. J. Houser, M.S., P.E., Chief

Iowa Electric Light and Power Company
P.O. Box 351
Cedar Rapids, Iowa 52406

Attention: Mr. Gordon Cook

Permit No. 70-28-S
Extended Aeration Treatment Facilities
Duane Arnold Energy Center
Palo, Iowa

Gentlemen:

In accordance with the provisions of Section 455B.25 of the Iowa Water Pollution Control Law, Code of Iowa, 1966, this permit is issued for disposal of wastes from the project cited above for which plans and specifications have been received in this office. This permit is issued subject to the following conditions and requirements:

1. Reductions will be made in the detention times of the aeration and settling units after the construction period with reduced permanent personnel loadings.
2. Duplicate air blowers will be provided, and each blower will be capable of supplying the total air requirements for the extended aeration plant.
3. Excess sludge will be removed from the extended aeration plant whenever found necessary to prevent the build-up of suspended solids in the mixed liquor. Some type of sludge-hauling facilities will be provided for transporting the excess sludge to a point of final disposal.
4. Chlorination facilities will be provided in the future if found necessary to protect downstream water uses.
5. The sewage treatment facilities will be maintained and operated in such a manner as to avoid health hazards or nuisance conditions.

The issuance of this permit in no way relieves the responsibility for complying with all local, state, and federal laws, ordinances, regulations, or other requirements applying to this project, including the safety rules of the Iowa Employment Safety Commission and State Bureau of Labor.

We are retaining two sets of the plans and specifications for our files and returning the other set to the designing engineer.

ARNOLD	COTTON	BEST
• SANDFORD	ZUHN	HUNT
• WALLACE	CIMBUREK	• BECHTEL
• HEROLD	FRINK	• Lewis
• COOK	LIU	• H.R. Green

-61a-



Iowa Electric Light and Power Company
Cedar Rapids, Iowa

February 20, 1970
Page 2

As this letter constitutes an official permit, it should be retained in your files.
At the direction of the Iowa Water Pollution Control Commission.

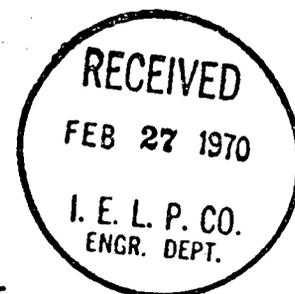
Very truly yours,

R. J. Schliekelman
R. J. Schliekelman, Director
Water Pollution Division

FME:ww

cc: Howard R. Green Company, Cedar Rapids
Regional Office No. 1, S.D.H.

ARNOLD	COTTON	BEST
SANDFORD	ZUHN	HUNT
WALLACE	CIMBUREK	BECHTEL
HEROLD	FRINK	FILE
COOK	LIU	



Bechtel Corporation

Inter-office Memorandum

To R. M. Rosauer Date December 23, 1969

Subject Bechtel Job 7884
Subcontract 7884-C-1 ✓
Work Quantities Discussion From W. C. McKinley

Copies to K. G. Wolfe
J. M. Reimers
G. L. Parkinson
FIFER ✓ Of P & I Construction

At Job 7884
Palo, Iowa

On December 23, 1969, H. C. Fifer met with Messers L. C. Lippold, M. W. McCumber, G. Peterson, and J. Gustafson, Peter Kiewit Son's Company, concerning surveys of completed work quantities for the Site Grading Subcontract, 7884-C-1. The work quantities were developed independently by Haaland-Parish Engineering Company, under contract to Kiewit, and Shive-Hattery and Associates, under contract to Bechtel. Quantities arrived at by Kiewit and Bechtel are as follows:

<u>Item & Description</u>	<u>Bechtel Quantity</u>	<u>Kiewit Quantity</u>	<u>Remarks</u>
#1 Clearing & Grubbing	37 acres	37 acres	Complete
#2 Reclaiming Rock Stockpile	LS	LS	Complete. 1000 cy were reclaimed. Kiewit used 700 cy of this for his haul roads, and placed 300 cy on Bechtel's field office parking lot.
#3 Removing & Spreading Rock	--	--	Deleted
#4 Stripping & Disposal of top soil	68,150 cy		Kiewit has not arrived at his figure.
#5 Excavation for Rough Grading of Construction Area	10,387 cy		Kiewit has not arrived at his figure.
#6 Culvert	104' of 24" CMP	104' of 24" CMP	In South drainage ditch access road & county road crossing.

1000
68,150
10,387
231,001
161,712
57,301

532,443

R. M. Rosauer
Page Two
December 23, 1969

<u>Item & Description</u>	<u>Bechtel Quantity</u>	<u>Kiewit Quantity</u>	<u>Remarks</u>
#7 Excavation of Building Area	110,540 cy	121,341 cy <i>231,551</i>	Bechtel quantity <u>excludes</u> 6,480 cy of over excavation. Kiewit quantity does not take over excavation into account.
#8 Backfilling & Testing Construction Work Area	<u>129,330 cy</u>	132,386 cy <i>161,716</i>	Figures include an agreed upon <u>10,000 cy of alluvium</u> from required excavation. Testing & final dressing is about 3/4th complete.
#9 Frost protection	L.S.	L.S.	Kiewit has placed all that Bechtel will allow at present. About 1/3 of area is covered.
#10 Borrowed suitable fill material for stockpile	<u>44,810 cy</u>	44,511 cy <i>89,321</i>	Kiewit pumped this yardage for his convenience. To be no charge made at the present time.

Kiewit was requested to submit an interim billing for the site grading prior to January 1, 1969, to facilitate year end bookkeeping. Kiewit agreed to submit their interim billing based on Bechtel's computations of work quantities.

WC McKinley
W. C. McKinley

WCM/HCF:bjb

50-331

Regulatory

File

