



444 South 16th Street Mall
Omaha NE 68102-2247

January 18, 2002
LIC-02-0009

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

References: 1. Docket No. 50-285
2. Letter from OPPD (W.G. Gates) to NRC (Document Control Desk) dated January 9, 2002 (LIC-02-0001)

**SUBJECT: Fort Calhoun Station Unit 1
Revised Application for Renewed Operating License**

My letter of January 9, 2002 (Reference 2) transmitted the Omaha Public Power District, Fort Calhoun Station Unit 1 Application for Renewed Operating License, including Appendix E - Applicant's Environmental Report. This Appendix E was subsequently determined to have several administrative errors: (1) Figure 2.4-2, page 2-35 was missing; and (2) the last 12 pages of Appendix 2, *Clean Water Act Documentation*, were incorrectly numbered as pages 2-31 through 2-42. In addition, most of the hyperlinks in the electronic version of Appendix E provided were not functional. We have corrected these problems, and the attachment to this letter provides new pages to be included in Appendix E. Except for the restoration of Figure 2.4-2, no new information is being provided.

Enclosed are 30 compact disc copies of just Appendix E in Adobe Portable Document Format for NRC reviewer use. All hyperlinks should be functional, the page errors noted above are corrected, and all information as been consolidated into a single file for ease of use. This version of Appendix E thus supersedes the version previously transmitted. An additional 10 compact disc copies are being transmitted to Mr. Ken Zahn of Lawrence Livermore National Laboratory.

We regret any inconvenience caused by the errors noted above. Please contact T.C. Matthews of my staff at 402-533-6938 if you have any questions.

A001

U.S. Nuclear Regulatory Commission
LIC-02-0009
Page 2

I declare under penalty of perjury that the foregoing is true and correct. (Executed on January 18, 2002)

Sincerely,



W. G. Gates
Vice President

TCM/tcm

Attachment: Restored and Corrected Pages for Appendix E of the Fort Calhoun Station Unit 1
Application for Renewed Operating License
Enclosure: Revised Electronic Copy of Appendix E of the Fort Calhoun Station Unit 1
Application for Renewed Operating License

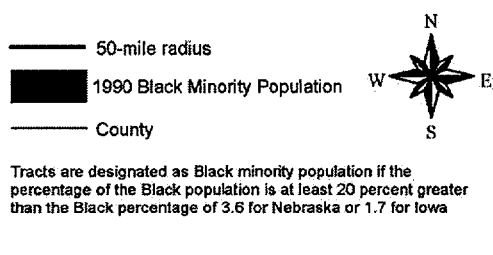
- c: E.W. Merschoff, NRC Regional Administrator, Region IV (w/o Attachment or Enclosure)
K.M. Kennedy, NRC Region IV, DRP Branch Chief (w/o Enclosure)
A. B. Wang, NRC Project Manager (w/o Attachment or Enclosure)
T.J. Kenyon, NRC License Renewal Project Manager
W.F. Burton, NRC License Renewal Project Manager (w/o Enclosure)
W.C. Walker, NRC Senior Resident Inspector (w/o Enclosure)
K. Zahn, LLNL
Division Administrator - Public Health Assurance, State of Nebraska (w/o Enclosure)
Winston & Strawn (w/o Enclosure)

LIC-02-0009
Attachment

**Restored and Corrected Pages for Appendix E of the
Fort Calhoun Station Unit 1 Application for Renewed Operating License**

- (1) Restored Figure 2.4-2, page 2-35
- (2) The last 12 pages of Appendix 2, *Clean Water Act Documentation*, incorrectly numbered as pages 2-31 through 2-42, now numbered as pages 2-42 through 2-53.

**FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION**



**FIGURE 2.4-2
BLACK MINORITY POPULATION
WITHIN 50 MILES OF FORT CALHOUN
STATION UNIT 1**

**FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION**

OPPD Fort Calhoun Station
NPDES Permit NE0000418
26 August 2000 Draft
Fact Sheet Page 10

b. Prohibited Pollutant Discharges

There shall be no discharge of polychlorinated biphenyl compounds (PCBs) or 126 toxic pollutants in detectable amounts from any outfall at any time.

c. The Minimum Detection Level

For the purpose of this permit, the Minimum Limit (ML) shall be the permit limit found in Part I. of this permit. Compliance with these limits will be based upon applicable and appropriate detection limits. If the result of analysis is above a detection limit, it shall be reported. If an analysis result is stated as "not detectable", the results shall be reported as "less than the detection limit".

d. Discharge Monitoring Reports

According to Appendix A. D. 4 the permit requires that monitoring results gathered during the previous 3 months be summarized for each month and reported on the Discharge Monitoring Report Form on a quarterly basis.

H. Submission of Written Comments

A copy of the fact sheet, draft permit, attachments, comments and other public information are available for review and copying at the Department's office between 8:00 a.m. and 5:00 p.m., weekdays.

Nebraska Department of Environmental Quality
Suite 400, The Atrium, 1200 N Street
Lincoln, Nebraska
Telephone (402) 471-4220
FAX (402) 471-2909

The public may make written comment upon or object to the draft permit or may make a written request for a public hearing during the public comment period specified in the attached public notice. All comments, objections and/or petitions for a hearing shall be considered prior to making a final decision regarding this application. These comments, objections and/or petitions for a hearing must state the nature of the issues to be raised, and all arguments and factual grounds supporting such positions. All comments, objections and/or petitions for a hearing should be sent to:

Rudy Fiedler, Acting Unit Supervisor
NPDES Permits Unit
Municipal and Industrial Section
Nebraska Department of Environmental Quality
P.O. Box 98922
Lincoln, Nebraska 68509-8922

J. Fact Sheet Attachments

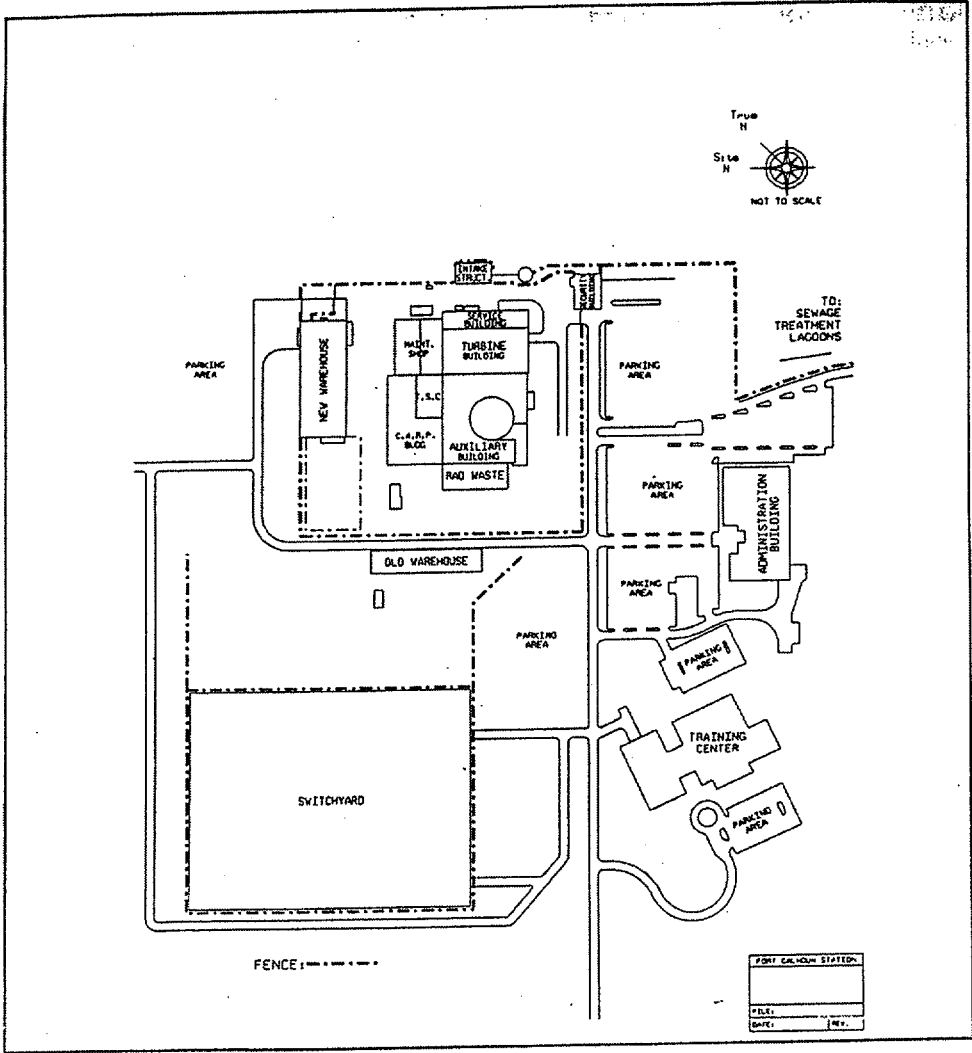
1. Maps of the site.
2. NPDES permit NE0000418

FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION

FORT CALHOUN STATION
STANDING ORDER

SO-G-108
PAGE 21 OF 32

Attachment 10.1



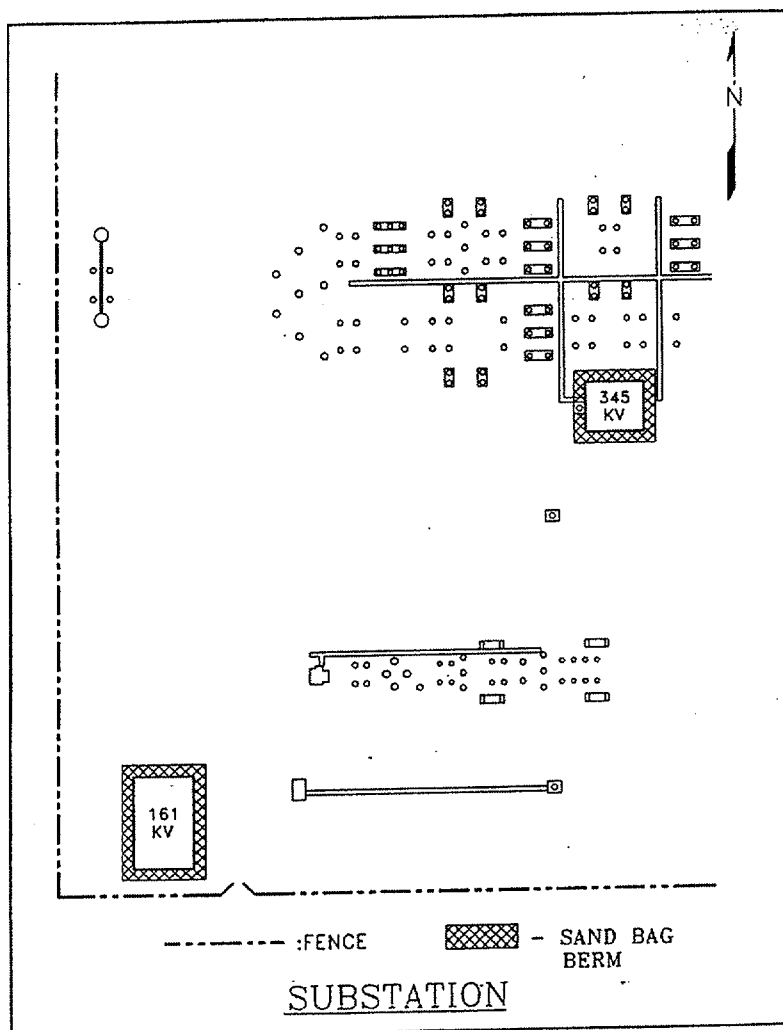
R3

FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION

FORT CALHOUN STATION
STANDING ORDER

SO-G-108
PAGE 22 OF 32

Attachment 10.1



R3

[illegible]

**FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION**

BEFORE THE NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY

IN THE MATTER OF)	
OMAHA PUBLIC POWER)	CASE NO. 2206
DISTRICT - FORT CALHOUN)	
NUCLEAR STATION,)	CONSENT ORDER
Respondent.)	

The Omaha Public Power District (OPPD), Respondent, and the Nebraska Department of Environmental Quality (NDEQ) stipulate and agree as follows:

1. The Respondent's Fort Calhoun Nuclear Station is a nuclear-fired steam electric generating station and the permittee under a National Pollutant Discharge Elimination System (NPDES) Permit #NE0000418 issued pursuant to the Nebraska Environmental Protection Act (Act) and Title 119 - Rules and Regulations Governing the Issuance of Permits under the National Pollutant Discharge Elimination System on November 20, 1997.
2. Respondent's NPDES permit authorizes the discharge of identified pollutants from designated outfalls in accordance with specific permit conditions. The permit contains effluent limitations and monitoring requirements for temperature applicable to outfalls 001 and 005. Outfall 001 discharges once through condenser cooling water during normal operation and outfall 005 discharges warmwater recirculation for deicing.
3. The effluent limitation for temperature for both these outfalls is 110 degrees Fahrenheit (°F) as a daily maximum, measured continuously and reported quarterly. This

**FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION**

effluent limitation is based on protecting the water quality of the receiving stream, the Missouri River.

4. On or about May 10, 1999, the Respondent requested a variance from the permit effluent limitation for temperature to allow a 2°F increase in the temperature discharge from outfalls 001 and 005 in anticipation of potential low stream flows in the Missouri river and high ambient water temperatures. As justification for the increase in temperature, the Respondent presented discharge temperature modeling data to the NDEQ on June 21, 1999. In further support of the request, the Respondent stated that significant social and economic hardship could result if power output would have to be curtailed in order to comply with the temperature limit.

5. Neb. Rev. Stat. §81-1513 authorizes the Director of the NDEQ to grant a variance from rules and regulations. The parties have agreed that the Respondent's request may be pursued as an application for a permit modification.

6. In order to completely evaluate the effect of a 2°F increase in the temperature discharge from outfalls 001 and 005, the NDEQ requires additional information to verify that the instream water quality criteria for temperature of 90°F as a maximum with a maximum temperature change of 5°F from natural conditions are not and will not be exceeded outside the applicable mixing zone identified for these discharges to the Missouri River.

7. Pending NDEQ consideration of the Respondent's application for a permit modification to increase the temperature of its discharges from outfalls 001 and 005 from a maximum of 110°F to a maximum of 112°F, the parties agree as follows:

**FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION**

A. The following effluent limitation shall be met at the point of discharge from outfalls 001 and 005:

<u>Parameter</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency</u>
Temperature	Report	112°F	Continuous

B. The Respondent shall not be required to submit non-compliance reports for exceedances of the temperature effluent limitation for outfalls 001 and 005 during the term of this Consent Order provided that the Respondent complies with the limitation set forth in paragraph A.

C. The Respondent shall submit water quality information to evaluate the impact of a 2°F increase in the temperature discharge from outfalls 001 and 005 to verify that the instream water quality criteria for temperature of 90°F as a maximum with a maximum temperature change of 5°F from natural conditions are not, and will not, be exceeded outside the mixing zone identified for these discharges to the Missouri River. The Respondent shall submit any additional information required by the NDEQ to evaluate the application for a permit modification in accordance with any schedule established by the NDEQ.

8. This Consent Order shall remain in effect until the NDEQ makes a final determination to issue or deny the permit modification to allow a temperature increase in the discharges from outfalls 001 and 005 or the NDEQ determines that the Respondent has not complied satisfactorily with the terms of this Consent Order. Failure to submit any information deemed necessary by the NDEQ to evaluate the application for a permit modification may result in denial of the application.

**FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION**

9. Nothing in this Consent Order shall be deemed to modify or suspend or relieve the Respondent of the obligation to comply with any of the conditions of the Respondent's NPDES permit except as modified by this Consent Order. Nothing in this Consent Order precludes the Respondent from requesting any other permit modification of its NPDES permit.

10. This Consent Order may be modified by a specific written amendment agreed to and signed by the parties as identified below. The NDEQ reserves the right to revoke or modify the conditions of this Consent Order and seek enforcement for any violation of the Act or this Consent Order.

11. Signatures:

A. For the Respondent: The undersigned representative of the Respondent certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Order and to bind the Respondent.

Agreed this 27th day of July, 1999.

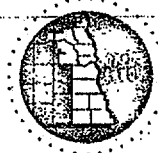
By: W. L. Neal
Division Manager -
Title: Environmental and Governmental Affairs

B. For the NDEQ:

IT IS SO ORDERED and agreed this 27th day of July, 1999.

By: Michael J. Linder
Michael J. Linder
Director

FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION



Omaha Public Power District

1623 HARNEY ■ OMAHA, NEBRASKA 68102 ■ TELEPHONE 538-4000 AREA CODE 402

July 1, 1976

Department of Environmental Control
Mailbox 94653, State House Station
1424 "P" Street
Lincoln, Nebraska 68509

Attn: Mr. D. T. Drain

Gentlemen:

Fort Calhoun Station
Intake Monitoring Report

In compliance with NPDES Permit No. 0000418 for [REDACTED] four (attached) copies of "Intake Monitoring Report Fort Calhoun Station Unit No. 1 NPDES Permit No. 0000418" are submitted. This report discusses the findings of Omaha Public Power District's intake monitoring program at Fort Calhoun Station Unit No. 1. Additional copies are available at your request.

Sincerely,

W. C. Jones
Section Manager - Operations

WCJ/LGH:jmm

Attach.

cc: Mr. T. E. Short
Mr. G. G. Bachman
Mr. T. P. Harding
Mr. W. D. Demyer
Mr. B. E. Dose, Jr.
Mr. L. G. Harrow
Mr. Chester Culley
P. C. File

DRW#:	309	REEL#	—
<input type="checkbox"/>	QA CONST. REC.		
<input type="checkbox"/>	DB REF.		
<input checked="" type="checkbox"/>	N/A		
INITIAL:	S		

**FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION**



State of Nebraska
Department of
Environmental Control

J. James Exon
Governor
Dan T. Drain
Director

Mail, Box 94653 State House Station Office, 1424 'P' Street Lincoln, Nebraska 68509 (402) 471-2186

January 19, 1977

WPC-SS.

Mr. Gerald Bachman
Assistant to the General Manager
Omaha Public Power District
1623 Harney Street
Omaha, Nebraska 68102

RE: Intake Monitoring Report Fort Calhoun Station
Unit II, No. 1 NPDES No. NE 0000418

Dear Mr. Bachman:

The review of the above-referenced document has been completed. Our staff agrees with the general discussion and data presentations in this report, however, we would offer the following comments.

The staff feels that although it is true that the majority of fish impinged at this power station are young-of-the year fish which under normal conditions do have high mortality rates, they do not generally agree that the loss would result in a minimal effect on fish populations in the vicinity of the power station or the river as a whole. We feel that fish which have reached the size of those impinged have a much better chance for survival than do smaller larval fish and therefore may be of more importance to the fisheries as a whole.

Entrainment losses at this facility were evaluated using the conservative approach by assuming 100% mortality of entrained organisms. We have used this approach based on the lack of adequate information to support a lesser percentage of mortality. However, we do agree that there is a potential for organisms to pass through the cooling system unharmed and we have tempered our final conclusions based on this assumption.

Based on the information available at this time, we have concluded that the losses due to entrainment and impingement at the facility are within the acceptable range. However, should future information refute this conclusion it may be necessary to consider additional fish protective devices should an economically and biologically acceptable method be developed.

**FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION**

Mr. Gerald Bachman

Page 2

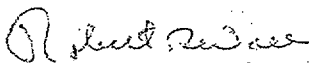
January 19, 1977

In an effort to reduce the monitoring burden and to confine submittal of information to that which would best define the environmental losses due to operation of the intake structure, we will no longer require information on zooplankton, phytoplankton and macroinvertebrates. We feel due to the regeneration capacity of these populations the effort necessary to define the effects of this facility is unwarranted at this time.

We would be very interested in seeing any information that OPPD may develop concerning condenser passage of larval fish, compensatory mechanisms and fishes recruitment potentials in the Missouri River wherever such information is available.

If you have any questions or comments, please contact Mr. Robert Todd of this office.

Very truly yours,



Robert B. Wall, Chief
Water Pollution Control Division

RDT/th

cc: Ralph Langemeier, EPA

FORT CALHOUN STATION UNIT 1
LICENSE RENEWAL APPLICATION
ENVIRONMENTAL INFORMATION



State of Nebraska
Department of
Environmental Control

J. James Exon
Governor
Dan T. Drain
Director

Mail, Box 94653 State House Station Office, 1424 'P' Street Lincoln, Nebraska 68509 (402) 471-2186

February 2, 1977

WPC-SS

Mr. Gerald Bachman
Assistant to the General Manager
Omaha Public Power District
1623 Harney
Omaha, Nebraska 68102

Dear Mr. Bachman:

This is to correct a typographical error in our letter dated January 19, 1977 which discussed the intake monitoring report for the Fort Calhoun Unit II. This should be changed as the review was conducted on the Fort Calhoun Unit I intake monitoring report.

This letter serves to verify that all comments and approvals stated in the above-referenced letter were addressed to Fort Calhoun Unit I only and should in no way be interpreted as approval of the proposed intake system for Fort Calhoun Unit II.

If you have any questions, please contact our office.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Robert B. Wall". The signature is fluid and cursive, with the first letter of each word being capitalized and prominent.

Robert B. Wall, Chief
Water Pollution Control Division

RDT/th

cc: Ralph Langemeier, EPA