

DISTRIBUTION

Docket File (ENVIRON) VMoore
 NRC PDR TBAbernathy,
 Local PDR **APR 29 1976** JRBuchanan
 OR TIC AROsenthal
 BJones (4) NGoodrich
 OI&E (3)
 DLZiemann
 MFletcher
 RDiggs
 BScharf (15)
 ACRS (16 - Cat. B)
 OELD
 EChristopherson, PNL
 MDuncan
 RBevan
 WRegan

Docket No. 50-298

Nebraska Public Power District
 ATTN: Mr. J. M. Pilant, Director
 Licensing and Quality Assurance
 Post Office Box 499
 Columbus, Nebraska 68601

Gentlemen:

The Commission has issued the enclosed Amendment No. 21 to Facility Operating License No. DPR-46 for the Cooper Nuclear Station (CNS). This amendment is in response to your requests dated July 11 and December 22, 1975.

The amendment involves changes to the Appendix B Technical Specifications for the radiological monitoring and radiological environmental surveillance programs to discontinue or change the location of certain sample stations, to add new sample stations, to delete certain sample types, and to make administrative changes and correct clerical errors. The NRC has evaluated the proposed changes and concluded that discontinuation of certain sample stations is justified to eliminate unproductive sampling or because the required data can be gathered at new or alternate stations. Changes in the location of some sample stations are justified to permit sampling where meaningful or more meaningful data can be obtained. The deletion of certain sample types is justified because either the sampled species have not been available in sufficient quantities or other sample types provide data which are as useful or more useful in assessing environmental effects. Some sample types have been deleted because they were one-of-a-kind samples which are retained as reference samples by the Nebraska Public Power District.

The amendment also involves changes in the limnological surveillance program in the Missouri River to delete unnecessary sampling and to improve sampling methods and locations. The NRC staff has concluded that deletion of cyanide and total sulfide analysis is justified because CNS is not a source of these chemicals. The changes in sampling methods and locations provides more useful data for assessing the thermal impact of CNS on Missouri River biota.

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APR 29 1976

We have evaluated the potential for environmental impact of plant operation in accordance with the enclosed amendment. The justifications presented by the applicant have been carefully examined and an independent analysis has been made of the proposed changes. Based on this evaluation, we have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded, pursuant to 10 CFR §51.5(d)(4), that an environmental statement, negative declaration or environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Since the amendment involves changes to the radiological monitoring program sampling locations and sample types, we have evaluated the amendment from the standpoint of radiological impact on the site environs. We have concluded that the amendment does not involve a significant increase in the probability or consequences of an accident, does not involve a significant decrease in a safety margin, and therefore does not involve a significant hazards consideration. We have also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by this action.

A copy of the related Federal Register Notice is also enclosed.

Sincerely,

Original signed by
Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Enclosures:

1. Amendment No. 21
to DPR-46
2. Federal Register Notice

*NOTE: See previous
yellows for
concurrences

OFFICE >	DSE:EP-3	DSE:EP-3	DSE;ADEP	OR:ORB #2	OELD ✓	OR:ORB #2
SURNAME >	MDuncan:aj/ro	WRegan	VMoore	MFletcher	Stridiron	DZiemann
DATE >	4/ /76*	4/ /76*	4/ /76*	4/ /76*	4/23/76*	4/29/76

DZ

APR 29 1976

cc w/enclosures:

Mr. Gene Watson, Attorney
Barlow, Watson & Johnson
Post Office Box 81686
Lincoln, Nebraska 68501

Mr. Arthur C. Gehr, Attorney
Snell & Wilmer
400 Security Building
Phoenix, Arizona 85004

Mr. William Siebert
Commissioner
Nemaha County Board of Commissioners
Nebraska County Courtroom
Auburn, Nebraska 68305

Mr. D. Drain, Director
Department of Environmental Control
Executive Building, Second Floor
Lincoln, Nebraska 68509

Mr. Ed Vest
Environmental Protection Agency
1735 Baltimore Avenue
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Mr. Neill Thomasson
ATTN: Loretto Long
Office of Radiation Programs
Environmental Protection
Agency
Room 647-A East Tower -
Waterside Mall
401 M Street, S. W.
Washington, D. C. 20460

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Docket No. 50-298

Nebraska Public Power District
ATTN: Mr. J. M. Pilant, Director
Licensing and Quality Assurance
Post Office Box 499
Columbus, Nebraska 68601

Gentlemen:

The Commission has issued the enclosed Amendment No. 21 to Facility Operating License No. DPR-46 for the Cooper Nuclear Station. This amendment is in response to your requests dated July 11 and December 22, 1975.

The amendment involves changes to the Appendix B Technical Specifications that:

1. Modify the radiological monitoring program to permit sampling in locations where more meaningful data may be gathered, delete unnecessary sampling requirements, and correct administrative and clerical errors.
2. Change the limnological surveillance program in the Missouri River to delete unnecessary analyses and improve sampling methods and locations.

The NRC staff has determined that these changes are appropriate to improve the overall monitoring program and eliminate unnecessary sampling.

We have evaluated the potential for environmental impact of plant operation in accordance with the enclosed amendment. The justifications presented by the applicant have been carefully examined and an independent analysis has been made of the proposed changes. Based on this evaluation, we have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded, pursuant to 10 CFR §51.5(d)(4), that an environmental statement, negative declaration or environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Since the amendment involves changes to the radiological monitoring program sampling locations and sample types, we have evaluated the amendment from the standpoint of radiological impact on the site environs. We have concluded that the amendment does not involve a significant increase in

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the probability or consequences of an accident, does not involve a significant decrease in a safety margin, and therefore does not involve a significant hazards consideration. We have also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by this action.

A copy of the related Federal Register Notice is also enclosed.

Sincerely,

Dennis L. Ziemann, Chief
 Operating Reactors Branch #2
 Division of Operating Reactors

Enclosures:

1. Amendment No. to DPR-46
2. Federal Register Notice

cc w/enclosures: Mr. Gene Watson, Attorney
 Barlow, Watson & Johnson
 Post Office Box 81686
 Lincoln, Nebraska 68501

Mr. Neill Thomasson
 ATTN: Loretto Long
 Office of Radiation Programs
 Environmental Protection Agency
 Room 647-A East Tower-
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 401 M Street, S. W.
 Washington, D. C. 20460

Mr. Arthur C. Gehr, Attorney
 Snell & Wilmer
 400 Security Building
 Phoenix, Arizona 85004

Mr. William Siebert
 Commissioner
 Nemaha County Board of Commissioners
 Nebraska County Courtroom
 Auburn, Nebraska 68305

bcc w/enclosures:
 J. R. Buchanan, ORNL
 T. B. Abernathy, DTIE
 A. Rosenthal, ASLAB
 N. Goodrich, ASLBP

Mr. D. Drain, Director
 Department of Environmental Control
 Executive Building, Second Floor
 Lincoln, Nebraska 68509

Mr. Ed Vest
 Environmental Protection Agency
 1735 Baltimore Avenue
 Kansas City, Missouri 64108

*NOTE: See previous yellow for concurrences

Changes required by EELD

OFFICE >	DSE:EP-3	DSE:EP-3	DSE:ADEP	OR:ORB #2	OELD <i>✓</i>	OR:ORB #2
SURNAME >	MDuncan:aj/ro RBevan	WRegan	VMoore	M Fletcher <i>W</i>	<i>STRIDIRON</i>	DZiemann
DATE >	4/ 176*	4/ 176*	4/ 176*	4/2/76*	4/2/76	4/ 176

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Columbus, Nebraska 68601

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OELD
EChristopherson, PNL

Gentlemen:

The Commission has issued the enclosed Amendment No. to Facility Operating License No. DPR-46 for the Cooper Nuclear Station. This amendment is in response to your requests dated July 11 and December 22, 1975.

The amendment involves changes to the Appendix B Technical Specifications that modify and clarify requirements in radiological monitoring, water quality monitoring and ecological areas of the specifications. These changes are appropriate to improve the overall monitoring program and to eliminate unproductive items.

We have evaluated the potential for environmental impact of plant operation in accordance with the enclosed amendment. The justifications presented by the applicant have been carefully examined and an independent analysis has been made of the proposed changes. Based on this evaluation, we have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded, pursuant to 10 CFR §51.5(d)(4), that an environmental statement, negative declaration or environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Since the amendment involves changes to the radiological monitoring program sampling locations and sample types, we have evaluated the amendment from the standpoint of radiological impact on the site environs. We have concluded that the amendment does not involve a significant increase in

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Docket No. 50-298

Nebraska Public Power District
ATTN: J. M. Pilant, Director
Licensing and Quality Assurance
P. O. Box 499
Columbus, Nebraska 68601

Gentlemen:

The Commission has issued the enclosed Amendment No. *to Facility operating*
License No. DPR-46 for the Cooper Nuclear Station. This amendment is
in response to your requests dated July 11 and December 22, 1975.

The amendment involves changes to the Appendix B Technical Specifications
that modify and clarify requirements in radiological monitoring, water
quality monitoring and ecological areas of the specifications. These
changes are appropriate to improve the overall monitoring program and to
eliminate unproductive items.

We have evaluated the potential for environmental impact of plant opera-
tion in accordance with the enclosed amendment. The justifications
presented by the applicant have been carefully examined and an independent
analysis has been made of the proposed changes. Based on this evaluation,
we have determined that the amendment does not authorize a change in
effluent types or total amounts nor an increase in power level and will
not result in any significant environmental impact. Having made this
determination, we have further concluded, pursuant to 10 CFR § 51.5(d)(4),
that an environmental statement, negative declaration or environmental
impact appraisal need not be prepared in connection with the issuance of
this amendment.

Since the amendment applies only to environmental considerations, it does
not involve significant new safety information of a type not considered
by a previous Commission safety review of the facility. It does not
involve a significant increase in the probability or consequences of an
accident, does not involve a significant decrease in a safety margin, and
therefore does not involve a significant hazards consideration. We have

OFFICE >

also concluded that there is reasonable assurance that the health and safety of the public will not be endangered by this action.

A copy of the related Federal Register Notice is also enclosed.

Sincerely,

Dennis L. Ziemann, Chief
 Operating Reactors Branch 2
 Division of Operating Reactors

Enclosures:

1. Amendment No. to DPR-46
2. Federal Register Notice

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DATE →	3/23/76	3/25/76	3/25/76	3/26/76	3/ /76	3/ /76

NEBRASKA PUBLIC POWER DISTRICT

DOCKET NO. 50-298

COOPER NUCLEAR STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 21
License No. DPR-46

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The applications for amendment by Nebraska Public Power District (the licensee) dated July 11 and December 22, 1975, comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations; and
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public;
 - E. An environmental statement or negative declaration need not be prepared in connection with the issuance of this amendment.
2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment.

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3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
Dennis L. Ziemann

Dennis L. Ziemann, Chief
Operating Reactors Branch 2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: APR 29 1976

OFFICE	DSE:EP-3 <i>md</i>	DSE:EP-3	DSE:ADEP <i>GKD</i>	ORB-2	OELD <i>[Signature]</i>	ORB-2 <i>[Signature]</i>
SURNAME	MDuncan:aj RBevan <i>[Signature]</i>	WRegan <i>for</i>	VMoore	MFletcher	STRIDIRON <i>[Signature]</i>	DZiemann
DATE	3/23/76	3/ /76	3/25/76	3/ /76	4/12/76	4/28/76

ATTACHMENT TO LICENSE AMENDMENT NO.

FACILITY OPERATING LICENSE NO. DPR-46

DOCKET NO. 50-298

The Technical Specifications contained in Appendix B of Facility License No. DPR-46 are hereby changed by replacing pages 25, 26, 29c, 34, 40, 43, and 47-71 with the attached revised pages bearing the same numbers. Changed areas on the revised pages are reflected by marginal lines.

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Specification (Cont'd)

the average gamma energies per disintegration of stack and vent effluents, \bar{E}_{β_s} and \bar{E}_{β_v} are the average beta energies per disintegration from stack and vent effluents.

2. The release rates of I-131 and particulates with half-lives greater than eight days released to the environs as part of airborne effluents shall not exceed:

$$\frac{Q_s}{7.7 \times 10^{-6}} + \frac{Q_v}{2.1 \times 10^{-6}} \leq 1$$

where Q_s and Q_v are the annual release rates in curies per second of I-131 and particulates with half-lives longer than eight days from the stack and reactor building and turbine building vents.

3. Deleted

Specification (Cont'd)

2. An isotopic analysis shall be made of a representative sample of gaseous activity, excluding tritium, at the discharge of the steam jet air ejectors prior to dilution and at an additional point prior to discharge to the atmosphere:

- a. Within one month of initial criticality,
- b. At least monthly thereafter,
- c. Following each refueling outage,

c. If the gaseous waste monitors indicate an increase of greater than 50% in the steady state fission gas release after factoring out increases due to power changes.

3. The release rate of tritium in the gaseous effluents shall be determined on the basis of a representative sample collected and analyzed for tritium at least quarterly.

4. Facility records and iodine and particulate releases with half-lives greater than eight days shall be maintained on the basis of all filter cartridges counted. These filters shall be analyzed weekly when the iodine or particulate release rate is no greater than the quarterly average release rate given in 2.4.3.a.3.a or 2.4.3.a.4.a as appropriate above, otherwise the cartridges shall be removed and analyzed daily until a steady release level has been established. These filters shall be analyzed for I-131 (charcoal), gross radioactivity (β, γ) and Ba-La-140 and I-131 (particulate).

2.0 ENVIRONMENTAL PROTECTION CONDITION

Specification (Cont'd)

4. The following restrictions on gaseous activity release apply subsequent to April 30, 1975:

a. The release rate of gaseous activity shall not exceed 16 percent of the above 2.4.3.a.1 or 8 percent of the above 2.4.3.a.2 averaged over any calendar quarter.

b. If the limits of 2.4.3.a.1, 2.4.3.a.2, or 2.4.3.a.4.a are exceeded, appropriate corrective action, such as an orderly reduction of power, shall be initiated to bring the releases within the limit.

c. When the release rate exceeds four percent of the above 2.4.3.a.1 or two percent of the above 2.4.3.a.2, when averaged over a calendar quarter, notify the Director, Directorate of Licensing, in writing, within 30 days, identifying the causes of activity, and describing the proposed program of action to reduce such release rates to design levels.

d. When the release rate exceeds four percent of the above 2.4.3.a.1 for a period of greater than 48 hours, notify the Director, Directorate of Licensing, in writing within

3.0 MONITORING REQUIREMENTS

Specification (Cont'd)

5. One of the weekly charcoal filters shall be analyzed for I-133 and I-135 at least quarterly.

6. One of the weekly particulate filters shall be analyzed for gross alpha radioactivity at least quarterly. A composite of a month's filters shall be analyzed for Sr-89 and Sr-90 at least quarterly and principal gamma emitting nuclides monthly.

7. When the average daily gross radioactivity release rate at the ERP equals or exceeds that given in 2.4.3.a.3.a or 2.4.3.a.4.a. as appropriate, or when the steady state gross radioactive release rate increases by 50% over the previous corresponding power level steady state release rate, the iodine and particulate cartridge shall be analyzed to determine the release rate increase for iodines and particulates.

8. All waste gas monitors shall be calibrated at least quarterly by means of a known radioactive source. Each monitor shall have an instrument channel test at least monthly and a sensor check at least daily.

9. At least annually, automatic initiation and closure of the offgas system shall be verified.

2.0 ENVIRONMENTAL PROTECTION CONDITION

Bases (Cont'd)

Specifications 2.4.3.a.6 and 7 are in accordance with Design Criterion 64.

Specification 2.4.3.a.9.a requires that these gaseous monitoring devices be available whenever radioactive gases are generated in the plant.

Specification 2.4.3.a.8 requires that the primary containment atmosphere receive treatment for the removal of gaseous iodine and particulates prior to its release, if it exceeds the reactor building vent monitor set point.

Specifications 2.4.3.a.9.a and b require that hydrogen concentration in the system shall be monitored at all times.

2.5 Other Parameters

Not Applicable.

3.0 MONITORING REQUIREMENTS

Bases (Cont'd)

3.5 Other Parameters

Not Applicable.

Table 3. Laboratory analyses, water quality study.

1. Ammonia	17. Specific conductance
2. Nitrate	18. Copper
3. Nitrite	19. Deleted
4. Total organic nitrogen	20. Fluoride
5. Soluble orthophosphate	21. Iron
6. Total phosphorus	22. Manganese
7. Silica	23. Methylene blue-active substances
8. Total coliform bacteria	24. Threshold odor
9. Fecal coliform bacteria	25. Phenols
10. Fecal Streptococci bacteria	26. Potassium
11. Biochemical oxygen demand	27. Sodium
12. Chemical oxygen demand	28. Total dissolved solids
13. Total organic carbon	29. Total suspended solids
14. Calcium	30. Sulfate
15. Chloride	31. Deleted
16. True color	32. Zinc
	33. Chlorine

(June-November) samples of periphyton will be collected. Analyses will be made to determine the relative abundance of species present. Biomass (ash-free weight) of the periphytic community will also be determined.

4. Aquatic Macroinvertebrates and Benthic Organisms

The macroinvertebrate component of the "aufwuchs" community will be sampled at five locations (RM 534, 532, 530, 528, and 526) beginning in May using multiple plate substrates similar to those originally described by Hester and Dendy (1962) and modified by Fullner (1971). These samples will be collected at two month intervals (June, August, and October) and identified to the lowest positive taxonomic category, usually genus or species. The total number of taxa and diversity will also be determined. Triplicate benthos samples will be collected concurrently using a Ponar dredge behind wing dams near the same five locations. Bottom sediment samples from these locations will be analyzed for total organic carbon. Sediment types will be visually determined.

Field Chemistry and nutrient analyses (Table 5) will be conducted as a part of the phytoplankton, zooplankton, periphyton and aquatic macroinvertebrate sampling program.

5. Fisheries Study

Sampling for fish population and life history studies will be conducted near RM 534, 532, and 530. Samples will be collected from both the Nebraska and Missouri shorelines in the vicinity of each river mile location.

Fish will be sampled monthly (May-November) using the following techniques:

a. Electroshocking

A boat-mounted electroshocker is the most effective tool for collection of fish in the shallow water areas. Each fish that is collected will be measured and weighed; scales will be taken from selected individuals, and certain individuals will be fin-clipped and returned to the river. This will allow for the return of most fish to the river alive; however, it will be necessary to sacrifice some fish for stomach analysis and gonadal inspection. All fish collected will be examined for the occurrence of external parasites and diseases.

Specification

A. Zooplankton Survival

Single samples will be collected at the downstream edge of the thermal mixing zone (approximately 7500 ft. downstream of the discharge canal outlet), while duplicate samples will be collected at the intake and discharge locations. Samples will be collected near the surface with a filter-pump system similar to that used by Icanberry (1972). A #10 mesh (153 μ) filter will be used in the filter-pump system to collect a representative sample. Samples will be maintained at intake water temperature, and survival analyses performed within 10 minutes and at 4 hours after collection.

Each sample will be concentrated to a 100-200 ml volume with a #20 mesh (80 μ) Nitex tipped pipette. A subsample of 0.5-1.0 ml will be taken from the concentrated sample with an automatic pipette, placed in a compartmentalized Petri dish, and examined under a stereozoom microscope. Zooplankton will be recorded as "motile" and "non-motile" because of recovery from temporary shock experienced during condenser passage. The criteria for determining non-motility will be the absence of appendicular and visceral movement upon probing. The term mortality will denote those organisms which fail to recover after 4 hours of observation. At the conclusion of the survival analyses, the zooplankton organisms will be preserved in a 3% formalin solution and identified to the lowest positive taxa according to Brooks (1957, 1966), Wilson and Yeatman (1966), Czaika and Robertson (1968), and Gannon (1970).

To obtain accurate survival data, 10-30 organisms will be separated from each subsample and a minimum of 150 organisms separated from each sample. A minimum of 150 organisms are separated to obtain consistencies between motile and non-motile counts from the same sampling site.

B. Phytoplankton Viability

Composite samples for determining phytoplankton viability will be collected near the surface with a Kemmerer water sampler at the same locations used for zooplankton survival studies. The composite samples will be maintained at intake water temperature for determination of phytoplankton species composition, chlorophyll *a* concentrations, rates of carbon fixation, and nutrient analyses.

4.4 RADIOLOGICAL

Objective

To provide the necessary information for evaluation of radiological effects on the environment.

Specification

An environmental radiological monitoring program will be carried out as defined in Tables 7, 8, and 9.

4.4.1 Background Radiation (Sample Type No. 2)

Ambient levels of external radiation are measured at selected locations within an approximate 10-mile radius of the plant by exposing thermoluminescent dosimeters (TLD) for quarterly time periods. Selection of locations and periods of exposure are based on prevailing winds and anticipated radiation levels to provide suitable measurements for evaluation of probable radiation doses to the environs surrounding the plant location.

4.4.2 Soil (Sample Type No. 5)

Soil samples consist of approximately 2 kg. of soil obtained by inserting a tubular sample template into the earth to a depth of approximately 6 inches and removing the enclosed soil to a suitable container.

4.4.3 Vegetation - Food and Feed Crops (Sample Type No. 7)

Food and feed crop samples consist of approximately 2 kg. of the consumable portions of the food or feed crop being grown at the designated sample location.

4.4.4 Vegetation-Garden Crops (Sample Type No. 8)

Garden crop samples consist of approximately 2 kg. of the edible portions of garden vegetables (usually tomatoes, sweet corn, and cabbage, when available) taken from family gardens at the designated sample stations within a 5 mile radius of the plant.

4.4.5 Vegetation - Feed and Forage - Beef Producers and Nearest Milk Producers (Sample Type No. 9 and 10)

Approximately 2 kg. of forage will be sampled during the pasture season where milk and/or beef cattle are raised at the designated sample stations within an approximate 5-mile radius of the plant. These forage samples will be taken at the accelerated frequency rate as shown in Table 7. When the beef and milk cattle are not on pasture, sampling will consist of approximately 2 kg. of feed, sampled at the less frequent sampling frequency as shown in Table 7.

When coupled with the use of transfer coefficients and intake figures, a reliable monitoring program for Cs-137 uptake in beef cattle is obtained.

The average daily cattle intake of Cs-137 will be estimated from the forage sampling data as follows:

$$\left[\begin{array}{c} \text{Average Cs-137 concentration} \\ \text{in forage-dry matter} \end{array} \right] \frac{\text{pCi}}{\text{kg}} \times \left[\frac{0.03 \text{ kg dry matter intake}}{\text{kg animal body wt.}} \right]$$

$$\times 500 \text{ kg body wt.} = \left[\text{mean daily cattle intake of Cs-137} \right] \frac{\text{pCi}}{\text{day}}$$

The average beef concentrations may be estimated for the steady state (equilibrium) condition using the feed to meat transfer coefficient (T.C.) proposed by Johnson, Tyler and Ward (J. An. Sci 29, 695, 1969) for pasture conditions.

$$\text{T.C.} = \frac{\text{pCi/kg meat (wet basis)}}{\text{pCi/day intake}} = 0.02$$

Therefore the average beef concentration of Cs-137 in pCi/kg =

$$\text{T.C.} \left[\text{pCi/day intake} \right] \quad (\text{wet basis})$$

In the event the average beef concentration of Cs-137, as determined above, exceeds 500 pCi/kg (which is approximately twice the concentration present in beef due to Cs-137 fallout) beef cattle will be sampled directly.

4.4.6 Vegetation - Feed and Forage - Other Milk Producers (Sample Type No. 11)

These feed and forage samples will consist of approximately 2 kg. of the feed or forage that the milk cows have been consuming just prior to producing the milk sample.

4.4.7 Apples (Sample Type No. 12)

Since apples are grown for commercial market in the area of the plant at nearby locations, the fruit from these orchards are sampled. These samples will be of approximately 2 kg. each.

4.4.8 Airborne - Particulates and Halides (Sample Type No. 13 and 14)

Continuous air sampling is performed at selected locations within an approximate 10-mile radius of the plant. Locations have been selected on the basis of prevailing winds and existing populated areas for evaluation of probable exposure to airborne particulate and halide radioactivity of the environs surrounding the plant location. The collection devices for iodine will contain potassium iodide impregnated charcoal or equivalent, and be constructed and operated so as to retain quantitatively the iodine in the air passing through the device. Sensitivities will be such that an iodine concentration of 2.0×10^{-14} μ Ci/cc may be measured. Appropriate analyses of particulate filters and halide collection devices are performed on all samples in accordance with accepted techniques and nuclides of interest.

4.4.9 River Water (Sample Type No. 15)

Sampling of the Missouri River water is performed at the designated location extending from approximately 3 miles above the plant intake structure to approximately 35 miles downstream from the station.

4.4.10 Aquatic Biota-Fish (Sample Type No. 17)

Approximately 5 fish of commercial size are collected from the Missouri River at locations from one to three miles upstream and one to three miles downstream from the plant. An attempt is made to include bottom-feeding types as well as middle- or top-feeding types in the species collected from each sampling location.

4.4.11 Aquatic Biota-Vegetation (Sample Type No. 18)

Rooted aquatic plants and slime growth on submerged surfaces in littoral locations of the Missouri River are samples when available during scheduled collection times at selected locations from immediately upstream to two miles downstream from the plant.

4.4.12 Ground Water (Sample Type No. 20)

Sampling of ground water is performed from the plant well water supply header and from selected farm wells, municipal water supply wells, and from local rural water district supply wells.

4.4.13 Milk (Nearest Producers) (Sample Type No. 21)

During the season the cows are on pasture, samples of fresh milk will be obtained at the frequency specified in Table 7 from cows at locations that may be significantly affected by emissions from the Cooper Station (i.e., where the calculated dose to a child's 2 gram thyroid using AEC models and assumptions is equal to or exceeds 15 mrem/yr) and analyzed for their radioiodine content, calculated as iodine-131. Analysis will be carried out within eight days (one I-131 half-life) of sampling. Suitable analytical procedures will be used to determine the radioiodine content to a sensitivity of 0.5 picocuries I-131 per liter of milk at the time of sampling. Counting statistics will be such that the standard deviation (one sigma confidence level) of the net counting rate will be 10% or less. Overall error of the analysis will be within \pm 25%. Results will be reported, with associated calculated error, as picocuries of I-131 per liter of milk at the time of sampling.

4.4.14 Milk (Sample Type No. 22)

Milk is sampled from other milk producers within an approximate 10-mile radius of the station. In the selection of milk sampling locations, an attempt has been made to select producers within areas of potential station influence with well established herds, who are most likely to remain in the business of milk production during succeeding years of station operation.

4.4.15 Eggs (Sample Type No. 23)

Since eggs are a common edible farm product in the area, egg samples (1 dozen per sample) are taken at the designated egg sample stations.

4.4.16 Terrestrial Wildlife - Rabbits (Sample Type No. 24)

Rabbits are collected at locations from one-half to three miles north-northwest to northwest to one half to three miles south to southeast of the plant site. Appropriate analyses of all rabbits are performed in accordance with accepted techniques and nuclides of interest, as given in Table 7.

(Numbers missing from sequence of Sample Type Nos. are discontinued or reference samples.)

Bases:

The limiting conditions for operation of CNS include restricting environmental effects due to the operation of CNS (including exposure to the population) in unrestricted areas surrounding the CNS plant site to within limits specified in AEC Regulations 10 CFR - parts 20, 50 and 100.

NEBRASKA PUBLIC POWER DISTRICT
 COOPER NUCLEAR STATION
 ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 7
 SAMPLE TYPE, DESCRIPTION, FREQUENCY, AND RADIOANALYSES

Type	Description	Sample Frequency	Radioanalysis and Remarks
2	Background Radiation	Quarterly	Thermoluminescent Dosimeters (TLD) exchanged and read out.
5	Soil	Triannually	Gamma Isotopic Sr-90 on collection
7	Vegetation - Food and Feed Crops	Yearly	(Harvest time) Gross beta Sr-90, Sr-89 I-131 Gamma Spectrum Elemental Calcium
8	Vegetation - Garden Crops	Yearly	(Harvest time) Gross beta Sr-90, Sr-89 I-131 Gamma Spectrum Elemental Calcium
9	Vegetation - Feed and Forage Beef Producers	Weekly, Peak Pasture Period, Monthly - Rest of year	(Peak pasture can run from May to October) Cs-137 (monthly composite of the weekly samples otherwise monthly) Gamma Spectrum (monthly composite of weekly samples otherwise monthly)
10	Vegetation - Feed and Forage Nearest Milk Producers	Monthly, Peak Pasture Period, Quarterly - Rest of year	(Peak pasture can run from May to October) I-131 Cs-137 Sr-90, Sr-89 Gamma Spectrum Elemental Calcium

NEBRASKA PUBLIC POWER DISTRICT
 COOPER NUCLEAR STATION
 ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 7
 SAMPLE TYPE, DESCRIPTION, FREQUENCY AND RADIOANALYSES

Type	Description	Sample Frequency	Radioanalyses and Remarks
11	Vegetation - Feed and Forage Other Milk Producers	Quarterly	I-131 Cs-137 Sr-90, Sr-89 Gamma Spectrum Elemental Calcium
12	Apples	Annually	(Harvest time) Gross beta Sr-90, Sr-89 I-131 Gamma Spectrum Elemental Calcium
13	Airborne - Particulates	Weekly	(Continuous samples) Gross alpha Gross beta Gamma spectrum analysis on: 1. Quarterly composite each station 2. Elevated beta levels (>100 dpm/sample)
14	Airborne - Halide	Weekly	(Continuous samples) I-131
15	River Water	Monthly	(Four (4) liter grab sample) Suspended - gross alpha Suspended - gross beta Dissolved - gross alpha Dissolved - gross beta Gamma Spectrum - Quarterly Tritium (H-3) - Quarterly Sr-90, Sr-89

NEBRASKA PUBLIC POWER DISTRICT
 COOPER NUCLEAR STATION
 ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 7
 SAMPLE TYPE, DESCRIPTION, FREQUENCY AND RADIOANALYSES

Type	Description	Sample Frequency	Radioanalyses and Remarks
17	Aquatic Biota - Fish	2 times/year	(Summer and Fall) Gross beta K-40 Sr-90, Sr-89 Gamma Spectrum
18	Aquatic Biota - Vegetation	2 times/year	Gross beta K-40 Sr-90, Sr-89 Gamma Spectrum
20	Ground Water	Quarterly	(Four (4) liter grab sample) Gross alpha Gross beta Gamma Spectrum Tritium (H-3)
21	Milk (Nearest Producers)	Weekly peak pasture period Monthly - rest of year	I-131 Sr-90, Sr-89 - Monthly Composite Cs-137 - Monthly Composite Gamma Spectrum - Monthly Composite Elemental Calcium - Monthly Composite
22	Milk	Quarterly	I-131 Sr-90, Sr-89 Cs-137 Gamma Spectrum Elemental Calcium

NEBRASKA PUBLIC POWER DISTRICT
 COOPER NUCLEAR STATION
 ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 7
 SAMPLE TYPE, DESCRIPTION, FREQUENCY AND RADIOANALYSES

Type	Description	Sample Frequency	Radioanalyses and Remarks
23	Eggs	Quarterly	(Edible portion only) Gross beta Sr-90, Sr-89 I-131 Gamma Spectrum Elemental Calcium
24	Terrestrial Wildlife - Rabbits	Annually	(In fall or early winter) I-131 - Thyroid Sr-90, Sr-89, - Femur Cs-137 - Muscle Tissue Gamma Spectrum - Muscle Tissue

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NEBRASKA PUBLIC POWER DISTRICT
 COOPER NUCLEAR STATION
 ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 8
 SAMPLE STATIONS AND SAMPLE TYPES

Sample Station	Sample Types																		
	2	5	7	8	9	10	11	12	13	14	15	17	18	20	21	22	23	24	
1	X								X	X									
2	X	X							X	X									
3	X	X							X	X									
4	X	X							X	X									
5	X	X							X	X									
6	X	X							X	X									
7	X	X							X	X									
8	X	X							X	X									
9	X	X							X	X									
10	X	X							X	X									
11															X				
12												X		X					
13												X		X					
15	X		X																
18	X		X																

NEBRASKA PUBLIC POWER DISTRICT
 COOPER NUCLEAR STATION
 ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 8
 SAMPLE STATIONS AND SAMPLE TYPES

Sample Station	Sample Types																
	2	7	8	9	10	11	12	13	14	15	17	18	20	21	22	23	24
20		X															
22	X																
27		X															
28										X	X	X					X
29		X															
34			X														
35											X						X
38		X															
41		X															
42						X									X	X	
43						X									X		
44	X																
45																X	
47													X				
51																X	

NEBRASKA PUBLIC POWER DISTRICT
 COOPER NUCLEAR STATION
 ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 8
 SAMPLE STATIONS AND SAMPLE TYPES

Sample Station	Sample Types																	
	2	7	8	9	10	11	12	13	14	15	17	18	20	21	22	23	24	
53							X											
54							X											
56			X															
57																X		
58	X																	
59	X																	
61					X									X				
62			X															
64				X														
65				X														
66				X														
67				X														
68				X	X													
70					X													
71				X														

NEBRASKA PUBLIC POWER DISTRICT
 COOPER NUCLEAR STATION
 ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 8
 SAMPLE STATIONS AND SAMPLE TYPES

Sample Station	Sample Types																
	2	7	8	9	10	11	12	13	14	15	17	18	20	21	22	23	24
72					X									X			
73						X										X	

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NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 9
SAMPLE TYPES AND SAMPLE LOCATIONS

<u>Sample Station</u> *	<u>Sample Type and Location</u>	
No. 1	Type:	2-13-14
	Location:	On Site - Approximately 500 ft. N.N.W. of ERP. Sample types (13) & (14) are obtained from the top of the CNS materials warehouse. Sample type (2) is taken approx. 30 inches off the ground on the ladder going up to the air sampler. (NW 1/4 S32 T5N-R16E) Nemaha County, Nebraska.
No. 2	Type:	2-5-13-14
	Location:	On North Side of County Road access to the south portion of the CNS site approximately 275 feet West of former Jefferson Broady farmstead. (SW1/4 S32 T5N-R16E) Nemaha County, Nebraska.
No. 3	Type:	2-5-13-14
	Location:	On North side of Brownville State Recreation Park access road, near water gauging station. (SE1/4 S18 T5N-R16E) Nemaha County, Nebraska.
No. 4	Type:	2-5-13-14
	Location:	½ mile South of Phelps City, Mo. on West side of highway "U" (NE1/4 S2 T64N-R42W) Atchison County, Missouri on Henry Hinrich's farm.
No. 5	Type:	2-5-13-14
	Location:	1/4 mile South and 1/4 mile East of Langdon, Missouri on North side of road, West of railroad tracks. (SW1/4 S18 T64N-R41W) Atchison County, Missouri on Dean A. Campbell farm.
No. 6	Type:	2-5-13-14
	Location:	1 mile West of the end of Missouri State Highway "U". South side of road at SW corner of intersection with N-S county road (NW1/4 S34 T64N-R42W) Atchison County, Missouri on Bluford LaHue farm.
No. 7	Type:	2-5-13-14
	Location:	150 yards West of Nemaha Elevator on the North Side of road. (SW1/4 S6 T4N-R16E) Nemaha County, Nebraska on Richard Andrew property.

NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 9
SAMPLE TYPES AND SAMPLE LOCATIONS

<u>Sample Station</u>	<u>Sample Type and Location</u>	
No. 8	Type:	2-5-13-14
	Location:	1/2 mile North, 3/4 mile West and 3/4 mile North of Nemaha on West side of road, adjacent to the "Mark T. Moore" transmission line. (NE1/4 S35 T5N-R15E) Nemaha County, Nebr. on Kenneth Andrew farm.
No. 9	Type:	2-5-13-14
	Location:	4 miles North of Highway #136 on Highway #67. One (1) mile east of Highway #67 and 1/2 mile North on West side of road. (SW1/4 S26 T6N-R15E) Nemaha County, Nebraska on Lloyd Reeves farm.
No. 10	Type:	2-5-13-14
	Location:	1 mile North of Barada, Nebr. in SW Corner of county road intersection. (NE1/4 S14 T3N-R16E) Richardson County, Nebr. on Mildred Birdsley Farm.
No. 11	Type:	20
	Location:	CNS Site - Plant well water header at well pits. (NW1/4 S32 T5N-R16E) Nemaha County, Nebr.
No. 12	Type:	15-18
	Location:	Taken from Missouri River immediately upstream from the CNS Intake Structure at (River Mile 532.5)
No. 13	Type:	15-18
	Location:	Taken from Missouri River 1/4 mile below CNS Plant Discharge Flume Outfall (River Mile 532.2)
No. 15	Type:	2-7
	Location:	On site - approximately 2700 ft. from CNS Elevated Release Point in a SSW direction. (SW1/4 S32 T5N-R16E) Nemaha County, Nebr.
No. 18	Type:	2-7
	Location:	West center of NPPD property boundary 45 ft. North of barn on former "Charles Garver" farmstead at base of the bluff. (NE 1/4 S31 T5N-R16E) Nemaha County, Nebraska.

NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
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TABLE 9
SAMPLE TYPES AND SAMPLE LOCATIONS

<u>Sample Station</u>	<u>Sample Type and Location</u>	
No. 20	Type:	7
	Location:	On the NNW boundary of NPPD property, approximately 20 yds. East of the county road (SE1/4 S30 T5N-R16E) Nemaha County, Nebraska.
No. 22	Type:	2
	Location:	East Center of NPPD property boundary in Missouri. 80 ft. West of Center of Levee. North side of ramp at Levee Mile 14.1 (NW 1/4 S15 T64N-R42W) Atchison County, Missouri.
No. 27	Type:	7
	Location:	Three (3) miles SE of CNS Plant Site in Missouri. 5 miles South of Highway #136 on State Highway "U" (SW of Langdon, Missouri) 100 ft. North of Paul Klump farm house (gray asbestos) on East side of road. (SE 1/4 S26 T64N-R42W) Atchison County, Missouri.
No. 28	Type:	15-17-18-24
	Location:	Sample types 15-17-18 are taken from the Missouri River at the general location of river mile 530. (approx. 2 miles below the Plant Discharge Flume Outfall) Sample type 24 is taken from the Nebr. bank of the river 1/2 to 3 miles downstream from the CNS Plant Discharge Flume Outfall. (River Mile 532 to River Mile 529) and encompasses S1/2 S32 T5N-R16E and Section 5 T4N-R16E, Nemaha County, Nebraska.
No. 29	Type:	7
	Location:	1 1/4 miles West of end of State Highway "U" and 50 yards East of Levee on the South side of the road on Bluford LaHue fram in Atchison County, Missouri (NW 1/4 S34 T64N-R42W).
No. 34	Type:	8
	Location:	Jim Garber garden at the Northeast edge of Brownville, Nebr. (SE 1/4 S18 T5N-R16E) Nemaha County, Nebraska.
No. 35	Type:	17-24
	Location:	Sample Type 17 is taken from the Missouri River, in that stretch of the river one to three miles above the CNS Plant Intake Structure (River Mile 532.5 to River Mile 535).

NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 9
SAMPLE TYPES AND SAMPLE LOCATIONS

<u>Sample Station</u>	<u>Sample Type and Location</u>	
No. 35 (cont'd.)		Sample Type 24 is taken from the Nebraska side of the river in the area from 1/2 mile north of the CNS plant site to the area of the Brownville State Recreation Area (at River Mile 535) which encompasses the W1/2 S29 T5N-R16E and the W1/2 S20 T5N-R16E Nemaha County, Nebraska.
No. 38	Type:	7
	Location:	In atchison County, Missouri (4 miles N. of CNS Plant Site) 3/4 mile E of Brownville Bridge, 1-1/4 miles N. of Highway #136, NE side of curve on county road. (NE1/4 S28 T65N-R42W) Atchison County, Missouri.
No. 41	Type:	7
	Location:	3/4 mile East of Watson, Missouri on Highway "A" North side of highway on the George Ellison farm. (NW1/4 S2 T65N-R42W) Atchison County, Missouri.
No. 42	Type:	11-22-23
	Location:	1 mile South and 1-1/4 miles East of Barada, Nebraska on South side of county road "Meinert Wissman" dairy farm. (NW1/4 S30 T3N-R17E) Richardson County, Nebraska
No. 43	Type:	11-22
	Location:	Two (2) blocks East of the South end of the Main Street in the town of Stella, Nebraska - "Arnold Huffman" dairy farm. (NE1/4 S18 T3N-R15E) Richardson County, Nebraska.
No. 44	Type:	2
	Location:	Two (2) miles South of Auburn Stop Light on Highway #73-75. 1/4 mile South of Auburn Country Club turn East 1/2 mile to fence line (N-S) on the North side of county road. (SE1/4 S27 T5N-R14E) Nemaha County, Nebraska
No. 45	Type:	23
	Location:	One (1) mile West of Brownville, Nebraska on U.S. Highway #136 - 1 mile North of Highway on county road - jog to the right and proceed approximately 1/4 mile North up a lane to the "John Sierks" farm. (SW1/4 S12 T5N-R15E) Nemaha County, Nebraska

NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 9
SAMPLE TYPES AND SAMPLE LOCATIONS

<u>Sample Station</u>	<u>Sample Type and Location</u>	
No. 47	Type:	20
	Location:	Falls City Municipal Water Supply Wells located approximately 1 mile South of Rulo, Nebraska. (SW1/4 S20 T1N-R18E) Richardson County, Nebraska.
No. 51	Type:	23
	Location:	1-1/4 miles South of Langdon, Missouri on East side of county road (Irwin Palm farm). (NW1/4 S30 T64N-R41W) Atchison County, Missouri
No. 53	Type:	12
	Location:	1-1/2 miles South of CNS Plant Site on the East side of county road (Leonard Moore orchard) (SE1/4 S6 T4N-R16E) Nemaha County, Nebraska.
No. 54	Type:	12
	Location:	Two (2) miles West of Brownville, Nebraska on U.S. Highway #136, then 1-3/4 miles North on the East side of county road (Clay Kennedy orchard). (NW1/4 S11 T5N-R15E) Nemaha County, Nebraska.
No. 56	Type:	8
	Location:	1-1/4 miles South and West of Langdon, Missouri on State Highway "U". Farm is located on the right side of highway just at curve (Bill Gebheart farm). (NW1/4 S23 T64N-R42W) Atchison County, Missouri
No. 57	Type:	23
	Location:	3 miles North and 1/2 mile West of Shubert, Nebraska on N side of road (Harlan Brewer farm) (SE1/4 S26 T4N R15E) Nemaha County, Nebraska.
No. 58	Type:	2
	Location:	3 miles South of Brownville, Nebraska on county road at the SW corner of NPPD property boundary - 50 yds. East of county road. (NE1/4 S32 T5N-R15E) Nemaha County, Nebraska.

NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 9
SAMPLE TYPES AND SAMPLE LOCATIONS

<u>Sample Station</u>	<u>Sample Type and Location</u>	
No. 59	Type:	2
	Location:	1 mile SSE of the CNS Elevated Release Point - 50 yards West of the Levee at the South boundary of NPPD property. (NE1/4 S33 T5N-R15E) Nemaha County, Nebraska.
No. 61	Type:	10-21
	Location:	1 mile W of Brownville, Nebraska on highway #136 - 1 mile N of highway on county road, turn right and proceed approx. 1/2 mile E on S side of road (Raymond Gentert farm) (NW1/4 S13 T5N-R15E) Nemaha County, Nebraska
No. 62	Type:	8
	Location:	Approximately 1-1/2 mile SW of ERP on W side of County road (Leonard Moore farmstead) (NE1/4 S6 T4N-R16E) Nemaha County, Nebraska.
No. 64	Type:	9
	Location:	1 mile West of Langdon, Missouri and 1/2 mile North on West side of road (R.A. Meyer Korth farm). (SW 1/4 S14 T64N-R42W) Atchison County, Missouri.
No. 65	Type:	9
	Location:	1-1/2 miles South of Brownville, Nebraska on the West side of county road at the NW corner of NPPD property boundary (on the Harold Davis Farm). (NE1/4 S30 T5N-R16E) Nemaha County, Nebraska.
No. 66	Type:	9
	Location:	2 miles South of Nemaha, Nebraska on Highway #67 - East side of highway (Clyde Kennedy farm). (NW1/4 S19 T4N-R16E) Nemaha County, Nebraska
No. 67	Type:	9
	Location:	2-1/2 miles West of Brownville, Nebraska on U.S. Highway #136 then North 2 miles on county road, then East 3/4 mile on South side of road (Walter Parkhurst farm). (NE1/4 S11 T5N-R15E) Nemaha County, Nebraska

NEBRASKA PUBLIC POWER DISTRICT
COOPER NUCLEAR STATION
ENVIRONMENTAL RADIATION SURVEILLANCE PROGRAM

TABLE 9
SAMPLE TYPES AND SAMPLE LOCATIONS

<u>Sample Station</u>	<u>Sample Type and Location</u>	
No. 68	Type:	9-10-21
	Location:	2-1/2 miles West of Brownville, Nebraska on U.S. Highway #136, then South 2 miles on the East side of county road (Manford Cade farm). (SW1/4 S26 T4N-R15E) Nemaha County, Nebraska.
No. 70	Type:	10-21
	Location:	North edge of Phelps City, Missouri along side U.S. Highway 136 south side of highway (Donald Daugherty trailer) (SE 1/4 S35 T65N-R42W) Atchison County, Mo.
No. 71	Type:	9
	Location:	2 miles East of Phelps City, Missouri on U.S. Highway #136, then south 1 1/2 miles on county road, then West 1/4 mile (Tom Boatman farm), (SE 1/4 S6 T64N-R41W) Atchison County, Mo.
No. 72	Type:	10-21
	Location:	1/8 mile North of U.S. Highway #136, on East side of Drive, directly across from "Missouri Beef Packers" at Phelps City, Missouri (Tom Pester residence). (NE 1/4 S35 T65N-R42W) Atchison County, Missouri.
No. 73	Type:	11-22
	Location:	1 (one) mile West of Rockport, Missouri, on U.S. Highway #136 to U.S. Highway #275, then 4 miles North on #275. West side of road (Bernice Grable farm). (NW 1/4 S4 T65N-R41W). Atchison County, Missouri.

* Numbers missing from sequence of Sample Station Nos. are discontinued Sample Stations.

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UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-298

NEBRASKA PUBLIC POWER DISTRICT

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY

OPERATING LICENSE

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 21 to Facility Operating License No. DPR-46 issued to Nebraska Public Power District which revised Technical Specifications for operation of the Cooper Nuclear Station located in Nemaha County, Nebraska. The amendment is effective as of its date of issuance.

The amendment permits changes that modify and clarify requirements in radiological monitoring, water quality monitoring, and ecological areas of the technical specifications.

The applications for the amendment comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to

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DATE >						

10 CFR s 51.5(d)(4) an environmental statement, negative declaration or environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the applications for amendment dated July 11 and December 22, 1975, and (2) Amendment No. 21 to License No. DPR-46. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Auburn Public Library, 1118 - 15th Street, Auburn, Nebraska.

A copy of item (2) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 29 day of April, 1976.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by
 Dennis L. Ziemann, Chief
 Operating Reactors Branch 2
 Division of Operating Reactors

OFFICE >	DSE:EP-3	DSE:EP-3	DSE:ADEP	ORB-2	OELD	ORB-2
SURNAME >	MDuncan RBevan	WRegan	VMoore	MFletcher	STRIDIRON	DZiemann
DATE >	3/23/76	3/25/76	3/25/76	3/ 1/76	4/12/76	4/28/76