Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

October 22, 1992

Mr. A. Bert Davis
Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: Braidwood Station Units 1 and 2
Application for Storm Water Permit
NRC Docket Nos. 50-456 and 50-457

Dear Mr. Davis:

Commonwealth Edison Company is the holder of National Pollutant Discharge Elimination System (NPDES) Permit No. IL0048321 for Braidwood Station. Section 3.2 of Appendix B (Environmental Protection Plan) of Facility Operating Licenses NPF-72 and NPF-77 requires that proposed changes to the NPDES permit to be reported to the NRC. Enclosed is Braidwood's application for a storm water permit. Rather than issue a separate permit, it is expected that the Illinois Environmental Protection Agency will incorporate the additional storm water discharge points addressed by the enclosed application into the NPDES permit for Braidwood Station upon its renewal in 1995.

Please direct any questions regarding this matter to this office.

Respectfully,

Terrence W. Simpkin

T.W. Simpkin
Nuclear Licensing Administrator

Enclosure

cc: Braidwood Resident Inspector
R.M. Pulsifer - NRR
NRC Document Control Desk

9210300014 921022
PDR ADOCK 05000456
P PDR

ZNLD/968/2

OCT 2 3 1992

September 29, 1992

CERTIFIED MAIL

Mr. Thomas G. McSwiggin, P.E.
Manager, Permit Section
Division of Water Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Subject: Commonwealth Edison Company, Individual Storm Water Permit Application - Braidwood Generating Station.

Dear Mr. McSwiggin:

Enclosed please find an individual storm water permit application for the Company's Braidwood Generating Station covering a single outfall. The application consists of Forms 1, 2F, and supporting documentation. Please note that several sections of the application were completed with guidance from the Industrial Permits Section, IEPA.

If you have questions or desire additional information regarding this application, please call Mr. Doug Yowell of my staff at (312) 294-4461.

Sincerely,

Jeffrey P. Smith
Supervisor of Water Quality

1623a
DWY:JPS:et

bcc: D. W. Yowell
File: W-20-PER-H2 (w/encl.)

F

Please print or type in the unshaded areas only
(fill-in areas are spaced for pica type, i.e., 12 characters/inch)

Form Approved. OMB No. 2040-0086. Approval expires 5-31-92.

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

# GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: F ILD000800505 D

FOR OFFICIAL USE ONLY

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

## II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of those forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.

| SPECIFIC QUESTIONS | MARK X YES | MARK X NO | MARK X FORM ATTACHED |
|---|---|---|---|
| A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A) | | X | |
| B. Does or will this facility (either an existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B) | | X | |
| C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C) | X | | |
| D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D) | | X | |
| E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3) | X | | |
| F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4) | | X | |
| G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4) | | X | |
| H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4) | | X | |
| I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | X | |
| J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | X | |

## III. NAME OF FACILITY

1 | COMMONWEALTH EDISON BRAIDWOOD STATION

## IV. FACILITY CONTACT

A. NAME & TITLE (last, first, & title) | B. PHONE (area code & no.)

2 | HEMMINGER THOMAS E. ENV SER. MGR | 312 | 254 | 4433

## V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 | P.O. Box 767 35 FNW

B. CITY OR TOWN | C. STATE | D. ZIP CODE

4 | CHICAGO | IL | 60690

## VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 | RURAL ROUTE #1 BOX 84

B. COUNTY NAME

WILL

C. CITY OR TOWN | D. STATE | E. ZIP CODE | F. COUNTY CODE

6 | BRACEVILLE | IL | 60407



CONTINUE ON REVERSE

## VII. SIC CODES (4-digit, in order of priority)

| A. FIRST | B. SECOND |
|---|---|
| 4911 Electrical Generation & Distribution | |
| **C. THIRD** | **D. FOURTH** |
| | |

## VIII. OPERATOR INFORMATION

**A. NAME**

COMMONWEALTH EDISON CO.

**B.** Is the name listed in Item VIII-A also the owner? X YES ☐ NO

**C. STATUS OF OPERATOR** (Enter the appropriate letter into the answer box; if "Other", specify.)
F = FEDERAL; M = PUBLIC (other than federal or state); S = STATE; O = OTHER (specify); P = PRIVATE

P

**D. PHONE** (area code & no.)

A 312 294 4433

**E. STREET OR P.O. BOX**

PO Box 767 35 FNW

**F. CITY OR TOWN**

CHICAGO

**G. STATE**

IL

**H. ZIP CODE**

60690

## IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES X NO

## X. EXISTING ENVIRONMENTAL PERMITS

| A. NPDES (Discharges to Surface Water) | D. PSD (Air Emissions from Proposed Sources) |
|---|---|
| 9 N IL0048321 | 9 P |
| **B. UIC (Underground Injection of Fluids)** | **E. OTHER (specify)** |
| 9 U | 9 82110055 (specify) AIR - RADWASTE VOL. REDUCT. SYSTEM |
| **C. RCRA (Hazardous Wastes)** | **E. OTHER (specify)** |
| 9 R IEPA LOG. NO. A-421 | 9 79020011 (specify) AIR- AUX BOILER, TANKS, DIESEL GENERATOR |

## XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

## XII. NATURE OF BUSINESS (provide a brief description)

GENERATION AND DISTRIBUTION OF ELECTRIC POWER

## XIII. CERTIFICATION (see instructions)

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

| A. NAME & OFFICIAL TITLE (type or print) | B. SIGNATURE | C. DATE SIGNED |
|---|---|---|
| R. J. Manning<br>Vice President | R. J. Manning | 4/2/1982 |

## COMMENTS FOR OFFICIAL USE ONLY

C

ILD000800505

EPA I.D. Number (copy from Item 1 of Form 1)

Form Approved. OMB No. 2040-0086

Please print or type in the unshaded areas only.

Approval expires 5-31-92

Form 2F (NPDES)

EPA

United States Environmental Protection Agency
Washington, DC 20460

# Application for Permit To Discharge Stormwater Discharges Associated with Industrial Activity

**Paperwork Reduction Act Notice**

Public reporting burden for this application is estimated to average 168 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, or suggestions for improving this burden, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., SW, Washington, DC 20460; or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

## I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

| A. Outfall Number (list) | B. Latitude | | | C. Longitude | | | D. Receiving Water (name) |
|---|---|---|---|---|---|---|---|
| #1 - Switchyard Runoff | 41 | 12 | 15 | 88 | 16 | 45 | Mazon River |

## II. Improvements

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions. N.A.

| B. Identification of Conditions, Agreements, Etc. | C. Affected Outfalls: Number (list) | Source of Discharge | D. Brief Description of Project | E. Final Compliance Date: Req. | Ext. |
|---|---|---|---|---|---|
| | | | | | |

E. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

## III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall; each known past or present area used for outdoor storage or disposal of significant materials; each existing structural control measure to reduce pollutants in storm water runoff; materials loading and access areas; areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.

Continued from the front

## IV Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

| Outfall Number | Area of Impervious Surface (provide units) | Total Area Drained (provide units) | Outfall Number | Area of Impervious Surface (provide units) | Total Area Drained (provide units) |
|---|---|---|---|---|---|
| #1 | 0 | 480,000 ft$^2$ | | | |

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water, method of treatment, storage, or disposal, past and present materials management practices employed in the last three years to minimize contact by these materials with storm water runoff, materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

See Attachment 'A'

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff, and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

| Outfall Number | Treatment | List Codes from Table 2F-1 |
|---|---|---|
| #1 | See attachment 'A' | |

## V Nonstormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharges from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

| Name and Official Title (type or print) | Signature | Date Signed |
|---|---|---|
| Douglas W. Yowell, General Biologist | Douglas W. Yowell | 9-29-92 |

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

Dry weather observation on June 17, 1991 and April 10, 1992

## VI Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

| Date | Material | Quantity | Comments |
|---|---|---|---|
| 12-19-90 | Diesel Oil | 8000 gal. (est) | Underground line leak near a new construction area. Over 6000 gal initially removed from site runoff oil/water separator (an NPDES permitted outfall). Subsequent cleaning of the separator in addition to soil excavation and clean-up of the area recovered the balance of the oil. |

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EPA Identification Number (copy from item 1 of Form 1)

Form Approved OMB No. 2040-0086
Approval expires 5-31-92

VII. Discharge Information (Continued from page 1 of Form 2F)

Part A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details. Outfall No. 1 - Switchyard Runoff

| Pollutant and CAS Number (if available) | Maximum values (include units) | | Average values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| Oil and Grease | < 1.0 ppm | | - | - | 1 | - |
| Biological Oxygen Demand (BOD5) | 1.6 ppm | 1.1 ppm | - | - | 1 | - |
| Chemical Oxygen Demand (COD) | <10 ppm | <10 ppm | - | - | 1 | - |
| Total Suspended Solids (TSS) | 10 ppm | 4 ppm | - | - | 1 | - |
| Total Kjeldahl Nitrogen | 0.5 ppm | <0.2 ppm | - | - | 1 | - |
| Nitrate plus Nitrite Nitrogen | 2.32 ppm | 2.76 ppm | - | - | 1 | - |
| Total Phosphorus | <0.01 ppm | <0.01 ppm | - | - | 1 | - |
| pH | Maximum 8.2 | Maximum 8.2 | Minimum - | Maximum - | 1 | - |

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater if the facility is operating under an existing NPDES permit. Complete one table for each outfall. See instructions for additional details and requirements.

| Pollutant and CAS Number (if available) | Maximum values (include units) | | Average values (include units) | | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | Grab Sample Taken During First 30 Minutes | Flow-weighted Composite | | |
| | | | | | | |

The following is a list of parameters noted in the station's NPDES permit for it's process wastewater that are not covered in parts "A" and "B" listed above. No analyses were conducted these parameters due to the fact that these constituents are not present in the switchyard and would not be present in the runoff from this outfall. Approval for this rationale was obtained from Mr. Tim Kluge, Industrial Permits Section, IEPA, on April 16, 1992.

- Temperature
- Chlorine, Total Residual
- Fecal Coliform

ILD000800505

EPA ID Number (copy from item 1 of Form 1)

Continued from Page 2

## VII. Discharge Information

A, B, C, & D See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.

Tables VII-A, VII-B, and VII-C are included on separate sheets numbered VII-1 and VII-2.

E. Potential discharges not covered by analysis - Is any pollutant listed in Table 2F-2 a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

X Yes (list all such pollutants below) ___ No (go to Section IX)

- Chlorine, Total Residual
- Fecal Coliform
- Boron

No analyses were conducted on these parameters due to the fact that these constituents are not present in the switchyard and would not be present in the runoff from this outfall. Approval for this rationale was obtained from Mr. Tim Kluge, Industrial Permits Section, IEPA, on April 16, 1992.

## VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

___ Yes (list all such pollutants below) X No (go to Section IX)

## IX. Contract Analysis Information

Were any of the analyses reported in item V performed by a contract laboratory or consulting firm?

___ Yes (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below) X No (go to Section X)

| A. Name | B. Address | C. A. Code & Phone No. | D. Pollutants Analyzed |
|---|---|---|---|
| | | | |

## X. Certification

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

| A. Name & Official Title (type or print) | B. Area Code and Phone No. |
|---|---|
| R. J. Manning<br>Vice President | |
| C. Signature | D. Date Signed |
| [signature] | 9/29/92 |

Part C - List each pollutant shown in Tables 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

| Pollutant and CAS Number (if available) | Maximum values (include units) Grab Sample Taken During First 30 Minutes | Maximum values (include units) Flow-weighted Composite | Average values (include units) Grab Sample Taken During First 30 Minutes | Average values (include units) Flow-weighted Composite | Number of Storm Events Sampled | Sources of Pollutants |
|---|---|---|---|---|---|---|
| PCB's | <0.0005 ppm | <0.0005 ppm | - | - | 1 | - |

While no Polychlorinated Biphenyls (PCB's) were expected to be present in the discharge from the station's switchyard given the absence of equipment containing PCB's within this area, This analysis was conducted to confirm that no PCB's are being discharged from the switchyard outfall.

Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

| 1. Date of Storm Event | 2. Duration of Storm (minutes) | 3. Total rainfall during storm event (in inches) | 4. Number of hours between beginning of storm measured and end of previous measurable rain event | 5. Maximum flow rate during rain event (gallons/minute or specify units) | 6. Total flow from rain event (gallons or specify units) | 7. Season sample was taken | 8. Form of Precipitation (rainfall, snowmelt) |
|---|---|---|---|---|---|---|---|
| 10/24/91 | 1440 | 0.47 | 240 hrs. | 100 gpm | 70,312 gal. | Fall | Rainfall |

9. Provide a description of the method of flow measurement or estimate.

Flow estimated using equation provided in Guidance Manual for the Preparation of NPDES Permit Applications For Storm Water Discharges Associated With Industrial Activity EPA-505/8-91-002.

EPA I.D. No. ILD000800505

BRAIDWOOD STATION
OTHER PERMITS (cont'd)

Sewage Sludge Land Application - 1468-86

EPA ID #ILD000800505

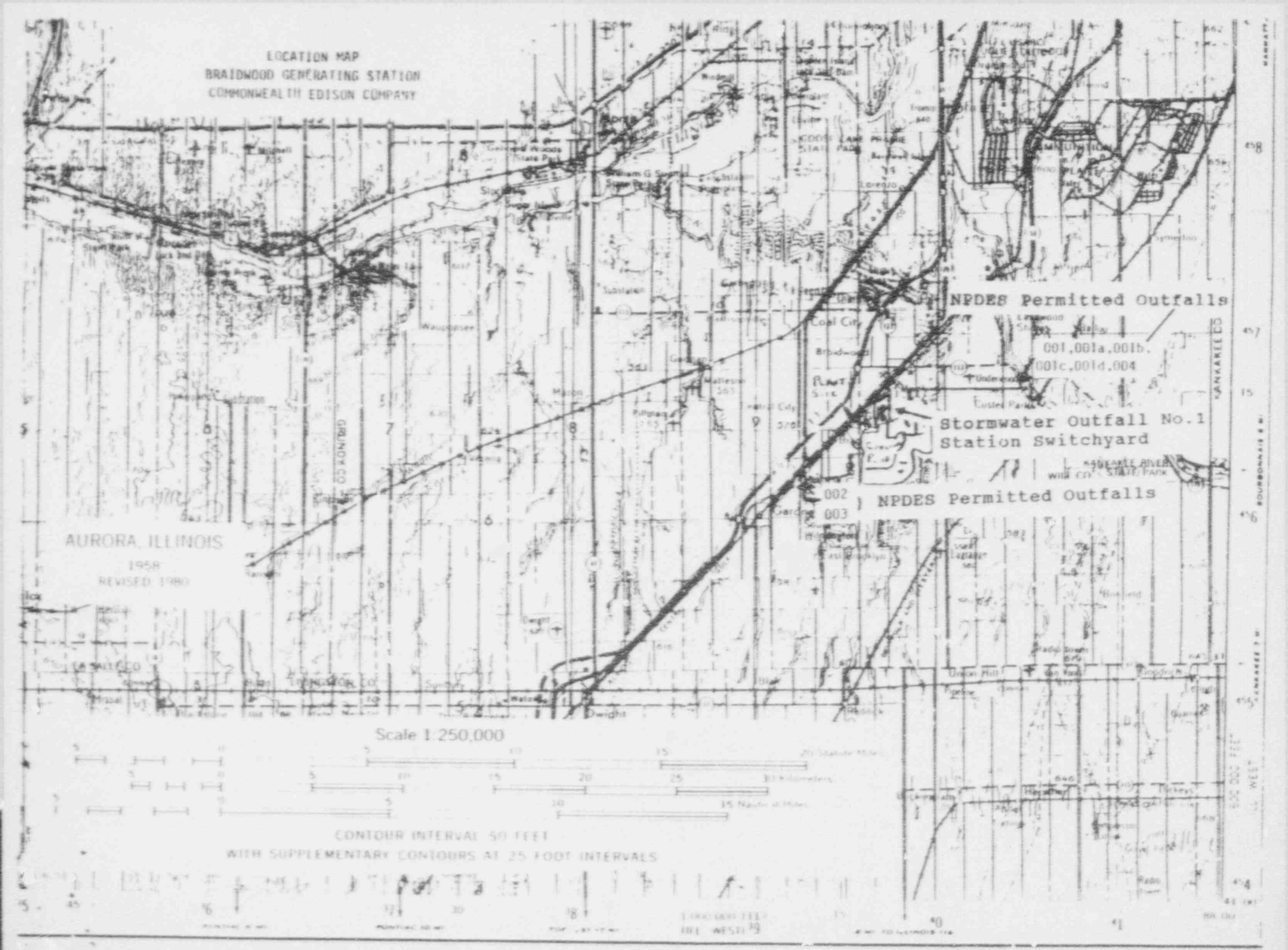
Attachment "A"

Inside the main plant area there are several storage areas that have been delineated on the prints. The "new and used" oil storage area is bermed and sloped to direct rainfall and spillage to an oil/water separator. The diesel oil storage tanks are located within a bermed area to prevent runoff in the event of leakage. The diesel oil unloading area has a bermed concrete pad sloped to a catch basin to collect spillage that may occur during the unloading process.

The hazardous materials (Haz-Mat) storage building contains a berm to control potential leakage. The Mixed Waste building utilizes "tubs" to contain spillage from wastes which may be stored inside the building. A bulk lime storage silo is located just outside the make-up demineralizer building. The housing surrounding the silo has a raised wall to retain any leakage from the silo. Transformers located inside the plant area have underdrain systems directed to an oil/water separator prior to discharge to the north site stormwater runoff point (an existing NPDES permitted outfall).

Outside the main plant area are sewage treatment plant sludge drying beds which provide a means for dewatering sewage sludge. The beds are concrete with an underdrain system designed to direct liquid (including precipitation) back to the sewage plant for reprocessing. A bermed area located outside the main plant area is used as an intermediate storage area for lime sludge that is awaiting landfill disposal. A fire training area is located to the north of the main plant area and directs runoff to the previously mentioned north site stormwater runoff point.

The switchyard area (listed as outfall number "1" on form 2f part 1) has an underdrain system installed to collect and route stormwater through the switchyard oil/water separator prior to discharge to an unnamed drainage ditch.


LOCATION MAP
BRAIDWOOD GENERATING STATION
COMMONWEALTH EDISON COMPANY
NPDES Permitted Outfalls
001,001a,001b,
001c,001d,004
Stormwater Outfall No.1
Station Switchyard
NPDES Permitted Outfalls
002
003
AURORA, ILLINOIS
1958
REVISED 1980
Scale 1:250,000
CONTOUR INTERVAL 50 FEET
WITH SUPPLEMENTARY CONTOURS AT 25 FOOT INTERVALS