



Commonwealth Edison
Braidwood Nuclear Power Station
Route #1, Box 84
Braceville, Illinois 60407
Telephone 815/458-2801

February 10, 1992
BW/92-0080

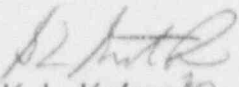
Director, Office of Resource Management
United States Nuclear Regulatory Commission
Washington, D.C. 20555

ATTN: Document Control Desk

Gentlemen:

Enclosed for your information is the Monthly Performance Report covering
Braidwood Nuclear Power Station for the period January 1 through January 31, 1992.

Very truly yours,


K. L. Kofron
Station Manager
Braidwood Nuclear Station

KLK/JL/dla
(227/ZD85G)

Attachments

cc: A. B. Davis, NRC, Region III
NRC Resident Inspector Braidwood
III. Dept. of Nuclear Safety
M. J. Wallace
E. D. Eenigenburg
T. J. Kovach
Nuclear Fuel Services, PWR Plant Support
INPO Records Center
Performance Monitoring Group, Tech Staff Braidwood Station
Nuclear Group, Tech Staff Braidwood Station
R. Pulsifer - USNRC
T. W. Simpkin
D. R. Eggett - Nuclear Engineering Department

TE-24

BRAIDWOOD NUCLEAR POWER STATION

UNIT 1 AND UNIT 2

MONTHLY PERFORMANCE REPORT

COMMONWEALTH EDISON COMPANY

NRC DOCKET NO. 050-456, LICENSE NO. NPF-72

NRC DOCKET NO. 050-457, LICENSE NO. NPF-77

I. Monthly Report for Braidwood Unit 1

A. Summary of Operating Experience

Braidwood Unit 1 entered the month of January, 1992, at approximately 94% reactor power. The unit operated routinely during the month with no significant outages or power reductions.

B. OPERATING DATA REPORT

DOCKET NO.: 50-456
UNIT: Braidwood 1
DATE: 02/10/92
COMPILED BY: C. E. Pershey
TELEPHONE: (815)458-2801
ext. 2173

OPERATING STATUS

1. Reporting Period: January, 1992 Gross Hours: 744
2. Currently Authorized Power Level (MWt): 3411
Design Electrical Rating (MWe-gross): 1175
Design Electrical Rating (MWe-net): 1120
Max Dependable Capacity (MWe-gross): 1175
Max Dependable Capacity (MWe-net): 1120
3. Power level to which restricted (If Any): None
4. Reasons for restriction (If Any): None

	<u>THIS MONTH</u>	<u>YR TO DATE</u>	<u>CUMULATIVE</u>
5. Report period Hours:	744.0	744.0	30753
6. Hours Reactor Critical:	744.0	744.0	23024.2
7. RX Reserve Shutdown Hours:	0.0	0.0	0.0
8. Hours Generator on Line:	744.0	744.0	22576.0
9. Unit Reserve Shutdown Hours:	0.0	0.0	0.0
10. Gross Thermal Energy (MWH):	2442760	2442760	67427276
11. Gross Elec. Energy (MWH):	839770	839770	23161962
12. Net Elec. Energy (MWH):	809197	809197	22111121
13. Reactor Service Factor:	100.0	100.0	74.9
14. Reactor Availability Factor:	100.0	100.0	74.9
15. Unit Service Factor:	100.0	100.0	73.4
16. Unit Availability Factor:	100.0	100.0	73.4
17. Unit Capacity Factor (MDC net):	97.1	97.1	64.2
18. Unit Capacity Factor (DER net):	97.1	97.1	64.2
19. Unit Forced Outage Rate:	0.0	0.0	12.3
20. Unit Forced Outage Hours:	0.0	0.0	3151.8
21. Shutdowns Scheduled Over Next 6 Months:	None		
22. If Shutdown at End of Report Period, Estimated Date of Startup:			

C. AVERAGE DAILY UNIT NET POWER LEVEL LOG

DOCKET NO.: 50-456
UNIT: Braidwood 1
DATE: 02/10/92
COMPILED BY: C. E. Pershey
TELEPHONE: (815)458-2801
ext. 2173

MONTH: January, 1992

1. _____	1010	17. _____	1117
2. _____	1062	18. _____	1088
3. _____	1088	19. _____	1091
4. _____	1102	20. _____	1074
5. _____	1029	21. _____	1102
6. _____	1079	22. _____	1107
7. _____	1112	23. _____	1045
8. _____	1101	24. _____	1096
9. _____	1112	25. _____	1075
10. _____	1103	26. _____	1088
11. _____	1094	27. _____	1060
12. _____	1078	28. _____	1085
13. _____	1096	29. _____	1109
14. _____	1107	30. _____	1098
15. _____	1107	31. _____	1063
16. _____	1120		

INSTRUCTIONS

On this form list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt. These figures will be used to plot a graph for each reporting month. Note that when maximum dependable capacity is used for the net electrical rating of the unit there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

* Due to condenser efficiency.

D. UNIT SHUTDOWNS/REDUCTIONS

DOCKET NO.: 50-456
UNIT: Braidwood 1
DATE: 02/10/92
COMPILED BY: C. E. Pershey
TELEPHONE: (815)458-2801
ext. 2173

REPORT PERIOD: January, 1992

<u>NO</u>	<u>DATE</u>	<u>TYPE</u>	<u>HOURS</u>	<u>REASON</u>	<u>METHOD</u>	<u>LER NUMBER</u>	<u>SYSTEM</u>	<u>COMPONENT</u>	<u>CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE</u>
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None

* S U M M A R Y *

<u>TYPE</u>	<u>REASON</u>	<u>METHOD</u>	<u>SYSTEM & COMPONENT</u>
F-Forced	A-Equipment Failure	1 - Manual	Exhibit F & H
S-Scheduled	B-Maint or Test	2 - Manual Scram	Instructions for Preparation of
	C-Refueling	3 - Auto Scram	Data Entry Sheet
	D-Regulatory Restriction	4 - Continued	Licensee Event Report
	E-Operator Training & License Examination	5 - Reduced Load	(LER) File (NUREG-0161)
	F-Administration	9 - Other	
	G-Oper Error		
	H-Other		

(227/ZD85G)6

E. UNIQUE REPORTING REQUIREMENTS - Unit 1

1. Safety/Relief valve operations.

<u>DATE</u>	<u>VALVES ACTUATED</u>	<u>NO & TYPE ACTUATION</u>	<u>PLANT CONDITION</u>	<u>DESCRIPTION OF EVENT</u>
	None			

2. Licensee generated changes to ODCM.

See attached.

(227/ZD85G)7

F. LICENSEE EVENT REPORTS - UNIT 1

The following is a tabular summary of all Licensee Event Reports submitted during the reporting period, January 1 through January 31, 1992. This information is provided pursuant to the reportable occurrence reporting requirements as set forth in 10 CFR 50.73.

<u>Licensee Event Report Number</u>	<u>Report Date</u>	<u>Title of Occurrence</u>
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None

I. Monthly Report for Braidwood Unit 2

A. Summary of Operating Experience

Braidwood Unit 2 entered the month of January, 1992, at approximately 96% reactor power. The unit operated routinely during the month until January 26, 1992, when load was reduced to perform scheduled maintenance on the Heater Drains system. The unit operated routinely through the end of the month following this maintenance.

B. OPERATING DATA REPORT

DOCKET NO.: 50-457
UNIT: Braidwood 2
DATE: 02/10/92
COMPILED BY: C. E. Pershey
TELEPHONE: (815)458-2801
ext. 2173

OPERATING STATUS

1. Reporting Period: January, 1992 Gross Hours: 744

2. Currently Authorized Power Level (MWt): 3411
Design Electrical Rating (MWe-gross): 1175
Design Electrical Rating (MWe-net): 1120
Max Dependable Capacity (MWe-gross): 1175
Max Dependable Capacity (MWe-net): 1120

3. Power level to which restricted (If Any): None

4. Reasons for restriction (If Any): None

	<u>THIS MONTH</u>	<u>YR TO DATE</u>	<u>CUMULATIVE</u>
5. Report period Hours:	744	744	28835
6. Hours Reactor Critical:	744	744	23510.6
7. RX Reserve Shutdown Hours:	0.0	0.0	0.0
8. Hours Generator on Line:	744	744	23284.0
9. Unit Reserve Shutdown Hours:	0.0	0.0	0.0
10. Gross Thermal Energy (MWH):	2422273	2422273	67777824
11. Gross Elec. Energy (MWH):	836260	836260	23193700
12. Net Elec. Energy (MWH):	805962	805962	22168857
13. Reactor Service Factor:	100	100	81.5
14. Reactor Availability Factor:	100	100	81.5
15. Unit Service Factor:	100	100	80.7
16. Unit Availability Factor:	100	100	80.7
17. Unit Capacity Factor (MDC net):	96.7	96.7	68.6
18. Unit Capacity Factor (DER net):	96.7	96.7	68.6
19. Unit Forced Outage Rate:	0.0	0.0	3.9
20. Unit Forced Outage Hours:	0.0	0.0	947.8
21. Shutdowns Scheduled Over Next 6 Months:	None		
22. If Shutdown at End of Report Period, Estimated Date of Startup:			

C. AVERAGE DAILY UNIT NET POWER LEVEL LOG

DOCKET NO.: 50-457
UNIT: Braidwood 2
DATE: 02/10/92
COMPILED BY: C. E. Pershey
TELEPHONE: (815)458-2801
ext. 2173

MONTH: January, 1992

1. 1065	17. 1047
2. 1069	18. 1097
3. 1078	19. 1089
4. 1103	20. 1098
5. 1099	21. 1103
6. 1095	22. 1105
7. 1115	23. 1087
8. 1118	24. 1092
9. *1127	25. 1068
10. 1119	26. 683
11. 1095	27. 1087
12. 1075	28. 1120
13. 1093	29. 1111
14. 1109	30. 1098
15. 1114	31. 1089
16. 1120	

INSTRUCTIONS

On this form list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt. These figures will be used to plot a graph for each reporting month. Note that when maximum dependable capacity is used for the net electrical rating of the unit there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

D. UNIT SHUTDOWNS/REDUCTIONS

DOCKET NO.: 50-457
 UNIT: Braidwood 2
 DATE: 02/10/92
 COMPILED BY: C. E. Pershey
 TELEPHONE: (815)458-2801
 ext. 2173

REPORT PERIOD: January, 1992

No	DATE	TYPE	HOURS	REASON	METHOD	LER NUMBER	SYSTEM	COMPONENT	CAUSE & CORRECTIVE ACTION TO PREVENT RECURRENCE
1	920126	S	19.3	B	5	N/A	SI	STR	Load reduction taken to perform a scheduled Heater Drain pump strainer flush. Pump was returned to service prior to power ascension.

 * S U M M A R Y *

TYPE	REASON	METHOD	SYSTEM & COMPONENT
F-Forced	A-Equipment Failure	1 - Manual	Exhibit F & H
S-Scheduled	B-Maint or Test	2 - Manual Scram	Instructions for Preparation of
	C-Refueling	3 - Auto Scram	Data Entry Sheet
	D-Regulatory Restriction	4 - Continued	Licensee Event Report
	E-Operator Training & License Examination	5 - Reduced Load	(LER) File (NUREG-0161)
	F-Administration	9 - Other	
	G-Oper Error		
	H-Other		

E. UNIQUE REPORTING REQUIREMENTS - UNIT 2

1. Safety/Relief valve operations.

<u>DATE</u>	<u>VALVES ACTUATED</u>	<u>NO & TYPE ACTUATION</u>	<u>PLANT CONDITION</u>	<u>DESCRIPTION OF EVENT</u>
	None			

2. Licensee generated changes to ODCM.

See attached.

F. LICENSEE EVENT REPORTS - UNIT 2

The following is a tabular summary of all Licensee Event Reports submitted during the reporting period, January 1 through January 31, 1992. This information is provided pursuant to the reportable occurrence reporting requirements as set forth in 10 CFR 50.73.

<u>Licensee Event Report Number</u>	<u>Report Date</u>	<u>Title of Occurrence</u>
91-006	01-13-92	Generator trip caused by spurious actuation of neutral ground relay.

CHANGES TO THE OFFSITE DOSE CALCULATION MANUAL

Changes to the Offsite Dose Calculation Manual (ODCM) are reportable to the Nuclear Regulatory Commission (NRC) in accordance with station Technical Specifications.

Part I of Revision O.F. to the Braidwood Annex identifies a new dairy for milk sampling, BD-26, Gaddis Farm, replacing BD-18, Biros Dairy Farm.

This revision does not reduce the accuracy or reliability of dose calculations or setpoint determinations, and has been reviewed and found acceptable by the Onsite Review and Investigative Function.

Braidwood On-site Review and Investigation Report

OSR Number: 92-007 Date: 1-23-92
 Subject Review: Offsite Dose Calculation Manual (ODCM), Rev I of Rev O.F.,
pages 11-7 and 11-7 of Chapter 11, Braidwood Annex

Requested by: Kim Aleshire

Disciplines Required: ☒ A Nuclear Power Plant Technology
☒ B Reactor Operations
☐ C Reactor Engineering
☐ D Chemistry
☒ E Radiation Protection
☐ F Instrumentation and Control
☒ G Mechanical and Electrical Systems

Participants: RP Supervisor OE
TSS
EP coord.

OSR Membership Approved Mildred J. Proge 1/23/92
 Technical Staff Supervisor / Date

10CFR50.59 Screening and/or Safety Evaluation is Required? - - - Y/N N
 If yes, attach completed documentation in accordance
 with BWAP 1205-6.

Concurrence Required by Offsite Review? (per Section C.6) - - - Y/N N

Findings and Recommendations:

updated to identify a new duty for milk sampling in
accordance with Technical Specifications Recommend
approval.

 On-Site Review Committee: Signature indicates concurrence with Findings and
 Recommendations and 10CFR50.59 Safety Evaluation.

Signatures	Discipline(s)	Date
<u>Mildred J. Proge</u>	<u>ABG</u>	<u>1/23/92</u>
<u>Kim Aleshire</u>	<u></u>	<u>1-23-92</u>
<u>Ellen M. Stark</u>	<u></u>	<u>1-29-92</u>
<u>J. H. Hall</u>	<u>ABG</u>	<u>1-27-92</u>

APPROVED

JUL 09 1991

BRAIDWOOD
ON-SITE REVIEW

Approved by: [Signature] 1-31-92
 STATION MANAGER DATE

BRAIDWOOD ON-SITE REVIEW AND INVESTIGATION REPORT

OSR No. _____

* NOTE *
* This checklist is provided as guidance for OSR *
* preparation and review. Items should be *
* completed as appropriate. *

Preparer

App. N/A

I. SYNOPSIS FORMAT

[X]	- Purpose	<u>New dairy farm for milk samples</u>
[X]	- Executive Summary of Findings and Recommendations	
	- References	
	- Bases of Findings and Recommendations	
	- Contingency Actions Recommended	

II. DOCUMENTATION REVIEWED: (List Applicable Sections in Synopsis)

[]	[]	- UFSAR
[]	[]	- Tech Specs. <u>2d 12 Environmental Monitoring</u>
[]	[]	- Admin Tech Requirements
[]	[]	- Safety Evaluation Report
[]	[]	- Fire Protection Report
[]	[]	- Prior 10CFR50.59 Safety Evals
[]	[]	- NRC Commitments
[]	[]	- Vendor Documentation
[]	[]	- Special Permits/Licenses
[]	[]	- Station Procedures
[]	[]	- Environmental Qualification
[]	[]	- Design Basis Documentation
[]	[]	- Drawings
[]	[]	- Maint. History (TJM)
[]	[]	- NPRDS
[]	[]	- PRA Info.
[]	[]	- Prior NED OE 40.1 Operability Evaluations

III. PLANT CONDITIONS: (Discuss Applicable Items in Synopsis)

[]	[]	- Applicable Modes
[]	[]	- Work In-Progress/Planned
[]	[]	- Temporary Alteration Installed
[]	[]	- Out-of-Service
[]	[]	- Degraded Equipment Log
[]	[]	- Abnormal Valve Lineups
[]	[]	- Effect on Opposite Train
[]	[]	- Effect on Other Unit
[]	[]	- Effect on Other Station
[]	[]	- Training Required

IV. OTHER CONSIDERATIONS: (Discuss Applicable Items in Synopsis)

[X]	- Consistency (dates, document no.s, values, EID's etc.)
[X]	- Grammar (Continuity, spelling, flow, etc.)
[]	[] - Engineering Review of A/E Calculations and Assumptions
[]	[] - Adequately Documented
[]	[] - Reportability (10CFR21, 10CFR72, etc)

Prepared by: Kim Blushaw 12392

APPROVED

JUL 09 1991

BRAIDWOOD
BRAIDWOOD ANNEX INDEX

REVISION 0.F
DECEMBER 1991

PAGE REVISION

CHAPTER 11

11-i	0.F
11-ii	0.A
11-iii	0.A
11-iv	0.A
11-1	0
11-2	0
11-3	0
11-4	0
11-5	0
11-6	0.D
11-7	0.F
11-8	0
11-9	0.A
11-10	0.A
11-11	0
11-12	0.A
11-13	0
11-14	0
11-15	0
11-'6	0
11-_7	0.F

3. Waterborne^e
(Cont'd)

- | | | |
|-------------------------------|--|---|
| d. <u>Cooling Water</u> | BD-08, Intake Pipe No. 3, 5.0 mi E (8.0 km E) Weekly
BD-09, Discharge Pipe No. 4, 5.0 mi E (8.0 km E) | Gross beta analysis |
| e. <u>Shoreline Sediments</u> | BD-10, Kankakee River downstream of discharge, 5.0 mi ENE (8.0 km D) | Semiannually
Gamma isotopic analysis on each sample. |

4. Ingestion^ea. MilkIndicators

BD-11, Morris/Mack Farm, 2.4 mi E (3.9 km E)
BD-17, Halpin's Dairy, 5.5 mi SSW (8.8 km K)
BD-26, Gaddis Farm, 11.0 mi ESE (17.6 km F)

Controls

BD-18, Biros Farm, 10.5 mi W (16.9 km N)

Semimonthly: May to October
Monthly: November to April

Gamma isotopic and I-131 analysis on each sample.

b. Fish

BD-07, Kankakee River upstream of discharge, 5.4 mi E (8.7 km E)

BD-10, Kankakee River downstream of discharge, 5.0 mi ENE (8.0 km D)

Three times a year (spring, summer, and fall)

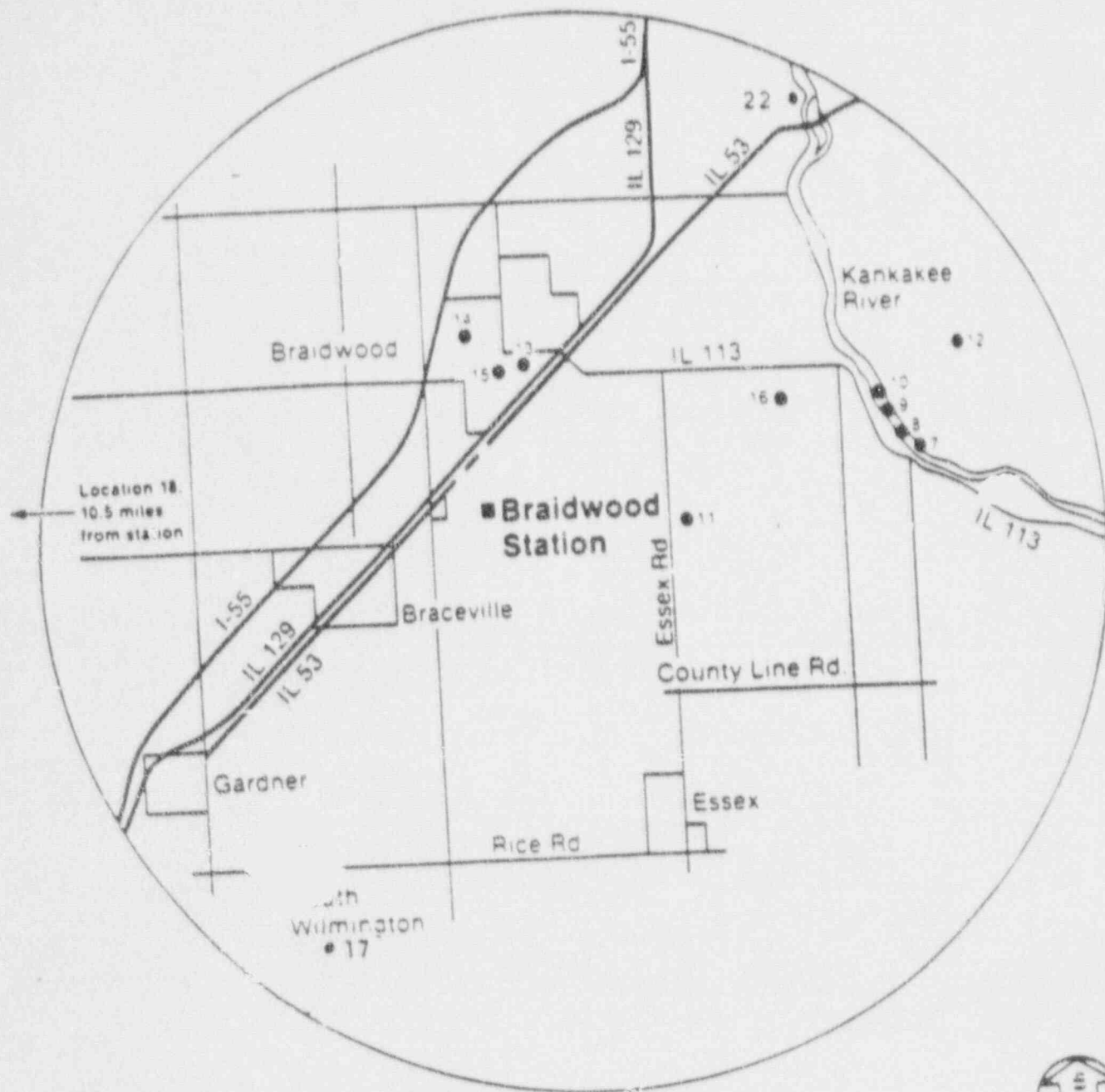
Gamma isotopic analysis on edible portions.

c. Vegetables

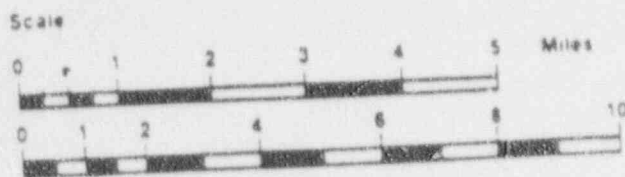
BD-14, Pinnick Farm, 1.8 mi N (2.9 km A)
BD-15, Girot Farm, 1.4 mi N (2.2 km A)
BD-16, Clark Farm, 3.3 mi ENE (5.5 km D)

Annually

Gamma isotopic analysis on edible portions.



DD-26 •



OFFSITE DOSE CALCULATION MANUAL
BRAIDWOOD STATION

FIGURE 11-3
INGESTION AND WATERBORNE EXPOSURE
PATHWAY SAMPLE LOCATIONS