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 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylv 05000388
 AUTH. NAME AUTHOR AFFILIATION
 FULLER, L.L. Pennsylvania Power & Light Co.
 KEISER, H.W. Pennsylvania Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: Monthly operating repts for Sept 1991 for Susquehanna Steam Electric Station, Units 1 & 2. W/911014 ltr.

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Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101-1179 • 215/774-5151

Harold W. Keiser
Senior Vice President-Nuclear
215/774-4194

Submitted pursuant to
Technical Specifications
Section 6.9.1.6

OCT 14 1991

U.S. Nuclear Regulatory Commission
Attn.: ~~Document Control Desk~~
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**SUSQUEHANNA STEAM ELECTRIC STATION
MONTHLY OPERATING REPORTS
PLA-3665 FILE R41-2A**

Docket Nos. 50-387/NPF-14
and 50-388/NPF-22

The September 1991 monthly operating reports for Susquehanna SES Units 1 and 2 are attached.

Very truly yours,

H. W. Keiser

Attachment

cc: NRC Region I
Mr. G. S. Barber, NRC Resident Inspector
Mr. J. J. Raleigh, NRC Project Manager

9110210319 910930
PDR ADCK 05000387
R PDR

FE24



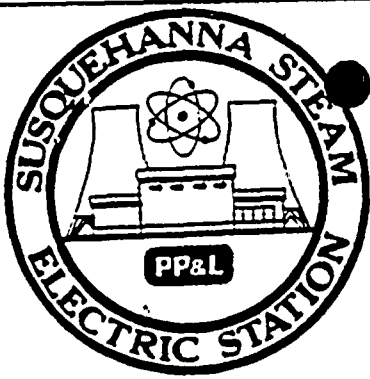
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AVERAGE DAILY UNIT POWER LEVEL

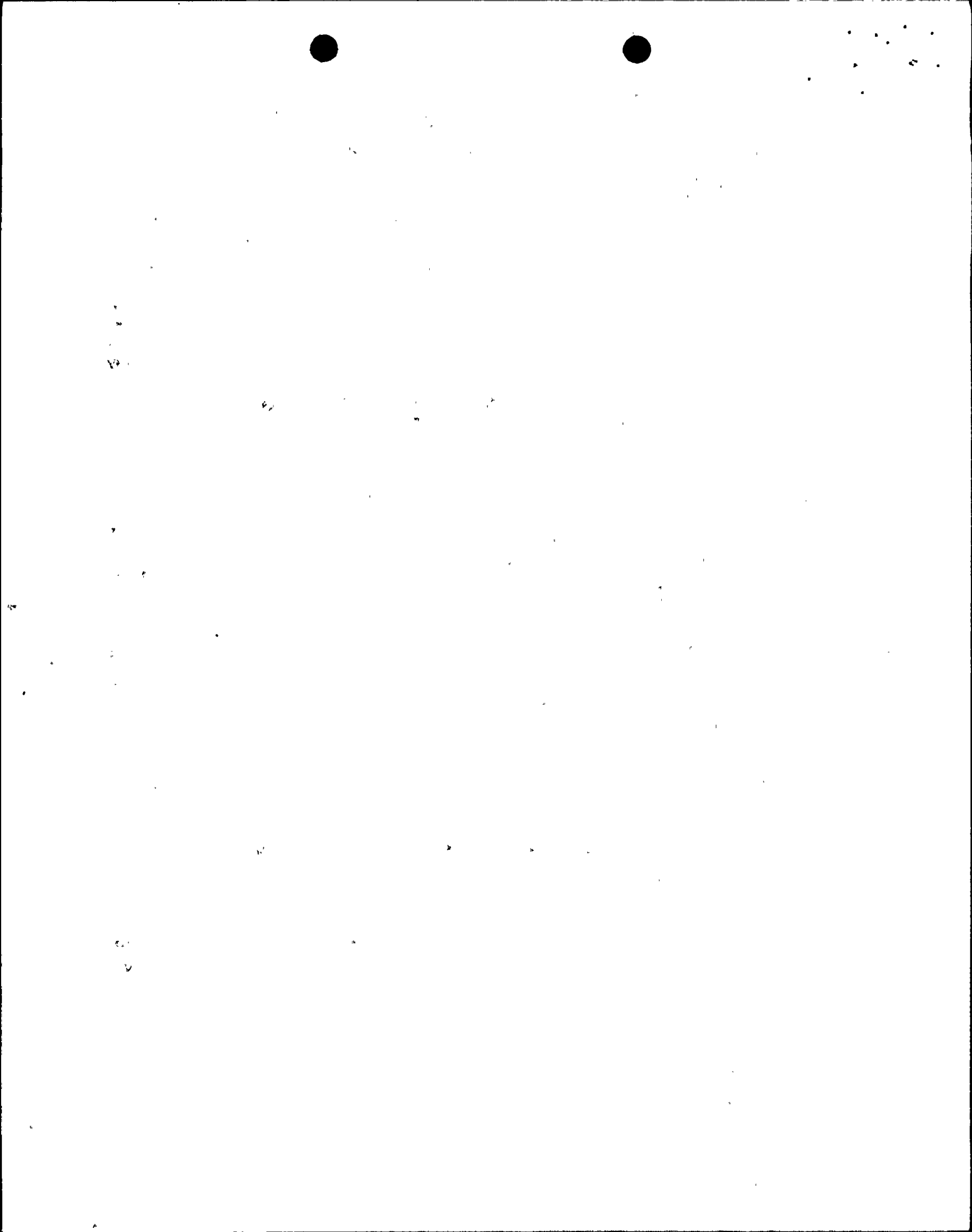
DOCKET NO. 50-387
UNIT One
DATE 10-3-91
COMPLETED BY L. L. Fuller
TELEPHONE (717) 542-3858

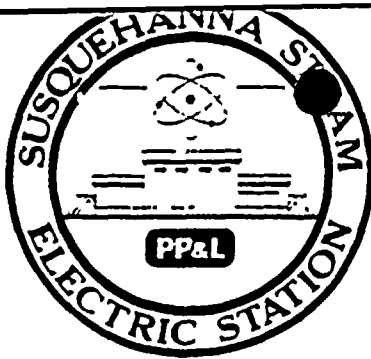
MONTH September 1991

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1042</u>	17	<u>1023</u>
2	<u>1044</u>	18	<u>1033</u>
3	<u>1039</u>	19	<u>1041</u>
4	<u>1033</u>	20	<u>1049</u>
5	<u>1035</u>	21	<u>1050</u>
6	<u>1003</u>	22	<u>1047</u>
7	<u>672</u>	23	<u>1046</u>
8	<u>814</u>	24	<u>1045</u>
9	<u>1015</u>	25	<u>1043</u>
10	<u>1031</u>	26	<u>1045</u>
11	<u>1036</u>	27	<u>1050</u>
12	<u>1043</u>	28	<u>1051</u>
13	<u>1040</u>	29	<u>1048</u>
14	<u>1033</u>	30	<u>1051</u>
15	<u>1033</u>	31	<u> </u>
16	<u>1023</u>		

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.





OPERATING DATA REPORT

DOCKET NO. 50-387
 DATE 10-3-91
 COMPLETED BY L.L. Fuller
 TELEPHONE (717) 542-3858

OPERATING STATUS

Unit One

1. Unit Name: Susquehanna Steam Electric Station
2. Reporting Period: September 1991
3. Licensed Thermal Power (MWt): 3293
4. Nameplate Rating (Gross MWe): 1152
5. Design Electrical Rating (Net MWe): 1050
6. Maximum Dependable Capacity (Gross MWe): 1078
7. Maximum Dependable Capacity (Net MWe): 1040
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report. Give Reasons:

Notes

No changes were made

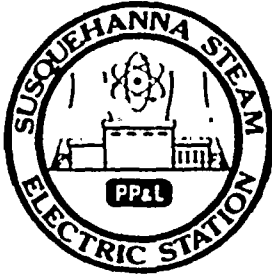
9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any: N/A

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	720	6551	72,888
12. Number Of Hours Reactor Was Critical	720	6413.5	56,716.9
13. Reactor Reserve Shutdown Hours	0	0	1032
14. Hours Generator On-Line	720	6387.7	55,519.8
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	2,318,956	20,583,299	174,289,423
17. Gross Electrical Energy Generated (MWH)	758,710	6,756,714	56,910,334
18. Net Electrical Energy Generated (MWH)	733,355	6,520,262	54,670,937
19. Unit Service Factor	100	97.5	76.2
20. Unit Availability Factor	100	97.5	76.2
21. Unit Capacity Factor (Using MDC Net)	97.9	95.7	72.1
22. Unit Capacity Factor (Using DER Net)	97.0	94.8	71.4
23. Unit Forced Outage Rate	0	0.2	7.9

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Refueling Outage March 7, 1992 for 70 days.

25. If Shut Down At End Of Report Period, Estimated Date of Startup: _____

26. Units In Test Status (Prior to Commercial Operation):	Forecast	Achieved
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____



UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH September 1991

DOCKET NO. 50-387
 UNIT NAME One
 DATE 10-3-91
 COMPLETED BY L.L. Fuller
 TELEPHONE (717) 542-3858

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
9	910906	S	0.0	B	5	NA	XX	ZZZ	Unit One commenced a power reduction at 2200 hours September 06 for scheduled maintenance. Power level was lowered to 58% for a control rod sequence exchange and repairs to a steam leak on a steam jet air ejector valve. Unit returned to 100% power, at 0900 hours September 9.

¹
 F: Forced
 S: Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Examination
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³
 Method:
 1-Manual
 2-Manual Scram.
 3-Automatic Scram.
 4-Continuation
 from previous month
 5-Reduction
 9-Other

⁴
 Exhibit G - Instructions
 for Preparation of Data
 Entry Sheets for Licensee
 Event Report (LER) File (NUREG-
 0161)

⁵
 Exhibit I - Same Source

SUSQUEHANNA STEAM ELECTRIC STATION

Docket Number 50-387

Date: October 3, 1991

Completed by L. L. Fuller

Telephone: (717) 542-3858

Challenges to Main Steam Safety Relief Valves

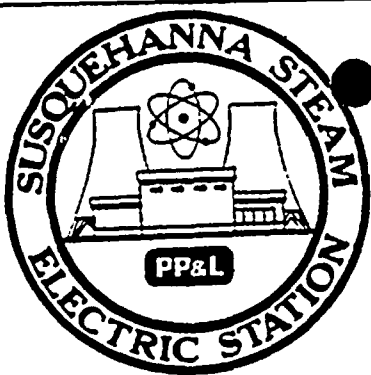
None

Changes to the Offsite Dose Calculation Manual

Yes. See Attachment A for changes

Major Changes to Radioactive Waste Treatment Systems

None



AVERAGE DAILY UNIT POWER LEVEL

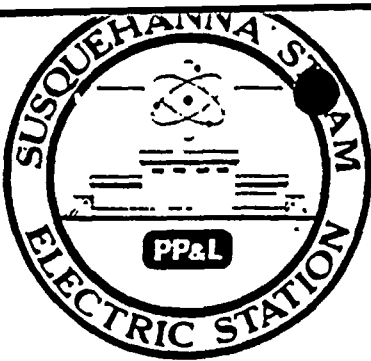
DOCKET NO. 50-388
UNIT Two
DATE 10-3-91
COMPLETED BY L.L. Fuller
TELEPHONE (717) 542-3858

MONTH September 1991

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	<u>1052</u>	17	<u>1034</u>
2	<u>1054</u>	18	<u>1040</u>
3	<u>1050</u>	19	<u>1049</u>
4	<u>1045</u>	20	<u>1056</u>
5	<u>1047</u>	21	<u>1058</u>
6	<u>1049</u>	22	<u>1056</u>
7	<u>1049</u>	23	<u>1052</u>
8	<u>1046</u>	24	<u>1052</u>
9	<u>1044</u>	25	<u>1052</u>
10	<u>1044</u>	26	<u>1054</u>
11	<u>1046</u>	27	<u>1058</u>
12	<u>1053</u>	28	<u>1058</u>
13	<u>1050</u>	29	<u>1056</u>
14	<u>1045</u>	30	<u>1058</u>
15	<u>1041</u>	31	<u> </u>
16	<u>1035</u>		

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.



OPERATING DATA REPORT

DOCKET NO. 50-388
 DATE 10-3-91
 COMPLETED BY L.L. Fuller
 TELEPHONE (717) 542-3858

OPERATING STATUS

Unit Two

1. Unit Name: Susquehanna Steam Electric Station
 2. Reporting Period: September 1991
 3. Licensed Thermal Power (MWt): 3293
 4. Nameplate Rating (Gross MWe): 1152
 5. Design Electrical Rating (Net MWe): 1050
 6. Maximum Dependable Capacity (Gross MWe): 1082
 7. Maximum Dependable Capacity (Net MWe): 1044
 8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report. Give Reasons:
No changes were made

Notes

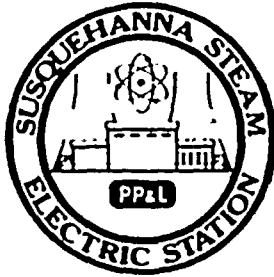
9. Power Level To Which Restricted, if Any (Net MWe): None
 10. Reasons For Restrictions, if Any: NA

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	<u>720</u>	<u>6551</u>	<u>58,127</u>
12. Number Of Hours Reactor Was Critical	<u>720</u>	<u>4910.1</u>	<u>47,772.9</u>
13. Reactor Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>717.9</u>
14. Hours Generator On-Line	<u>720</u>	<u>4747.9</u>	<u>46,787.7</u>
15. Unit Reserve Shutdown Hours	<u>0</u>	<u>0</u>	<u>0</u>
16. Gross Thermal Energy Generated (MWH)	<u>2,375,652</u>	<u>15,113,637</u>	<u>148,207,101</u>
17. Gross Electrical Energy Generated (MWH)	<u>782,798</u>	<u>4,937,865</u>	<u>48,532,984</u>
18. Net Electrical Energy Generated (MWH)	<u>755,592</u>	<u>4,743,925</u>	<u>46,695,303</u>
19. Unit Service Factor	<u>100</u>	<u>72.5</u>	<u>80.5</u>
20. Unit Availability Factor	<u>100</u>	<u>72.5</u>	<u>80.5</u>
21. Unit Capacity Factor (Using MDC Net)	<u>100.5</u>	<u>69.4</u>	<u>77.0</u>
22. Unit Capacity Factor (Using DER Net)	<u>100</u>	<u>69.0</u>	<u>76.5</u>
23. Unit Forced Outage Rate	<u>0</u>	<u>4.6</u>	<u>6.1</u>

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

25. If Shut Down At End Of Report Period, Estimated Date of Startup:

26. Units In Test Status (Prior to Commercial Operation):	Forecast	Achieved
INITIAL CRITICALITY	<u> </u>	<u> </u>
INITIAL ELECTRICITY	<u> </u>	<u> </u>
COMMERCIAL OPERATION	<u> </u>	<u> </u>



UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH September 1991

DOCKET NO. 50-388
 UNIT NAME Two
 DATE 10-3-91
 COMPLETED BY L.L. Fuller
 TELEPHONE (717) 542-3858

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
									No report required for September 1991

¹
 F: Forced
 S: Scheduled

²
 Reason:
 A-Equipment Failure (Explain)
 B-Maintenance of Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Examination
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³
 Method:
 1-Manual
 2-Manual Scram.
 3-Automatic Scram.
 4-Continuation
 from previous month
 5-Reduction
 9-Other

⁴
 Exhibit G - Instructions
 for Preparation of Data
 Entry Sheets for Licensee
 Event Report (LER) File (NUREG-
 0161)

⁵
 Exhibit I - Same Source

SUSQUEHANNA STEAM ELECTRIC STATION

Docket Number 50-388

Date: October 3, 1991

Completed by L. L. Fuller Telephone: (717) 542-3858

Challenges to Main Steam Safety Relief Valves

None

Changes to the Offsite Dose Calculation Manual

Yes. See Attachment A for changes

Major Changes to Radioactive Waste Treatment Systems

None

SUMMARY OF ODCM CHANGES

This revision documents changes to sampling stations pursuant to SSES Technical Specifications 3.12.1.c and 3.12.2.b. Henceforth with this revision, all changed pages will be indicated by an approval/date box rather than date stamp.

1. Sampling stations 12S2 and 3S2 replace stations 11S2 and 2S2, respectively.
2. TLD station 9D4 replaces station 9D1; the only change of actual locations. Other locations (2B3, 9D4, 4E1, 10D2, and 11E1) have name changes.
3. Milk station 12B2 has been replaced by station 10D3.
4. Milk station 8D4 has been replaced by station 10D4.
5. Milk stations 13E3 and 9D3 were discontinued. Station 13E3 was replaced by 6C1, and 9D3 was not replaced due to low D/Q reported for this location.
6. Semi-monthly sampling frequency was reduced for station 10D1, due to low dose potential.
7. Milk stations 12B3 and 12D2 were added, due to their relatively high dose potential. Stations 12B3, 14B1 and 12D2 are now sampled semi-monthly per Technical Specification Table 3.12.1-1.

APPV <i>RK13</i>
DATE <i>8/28/91</i>

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DATE <u>8/28/91</u>



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APPV FKB
DATE 3/28/91

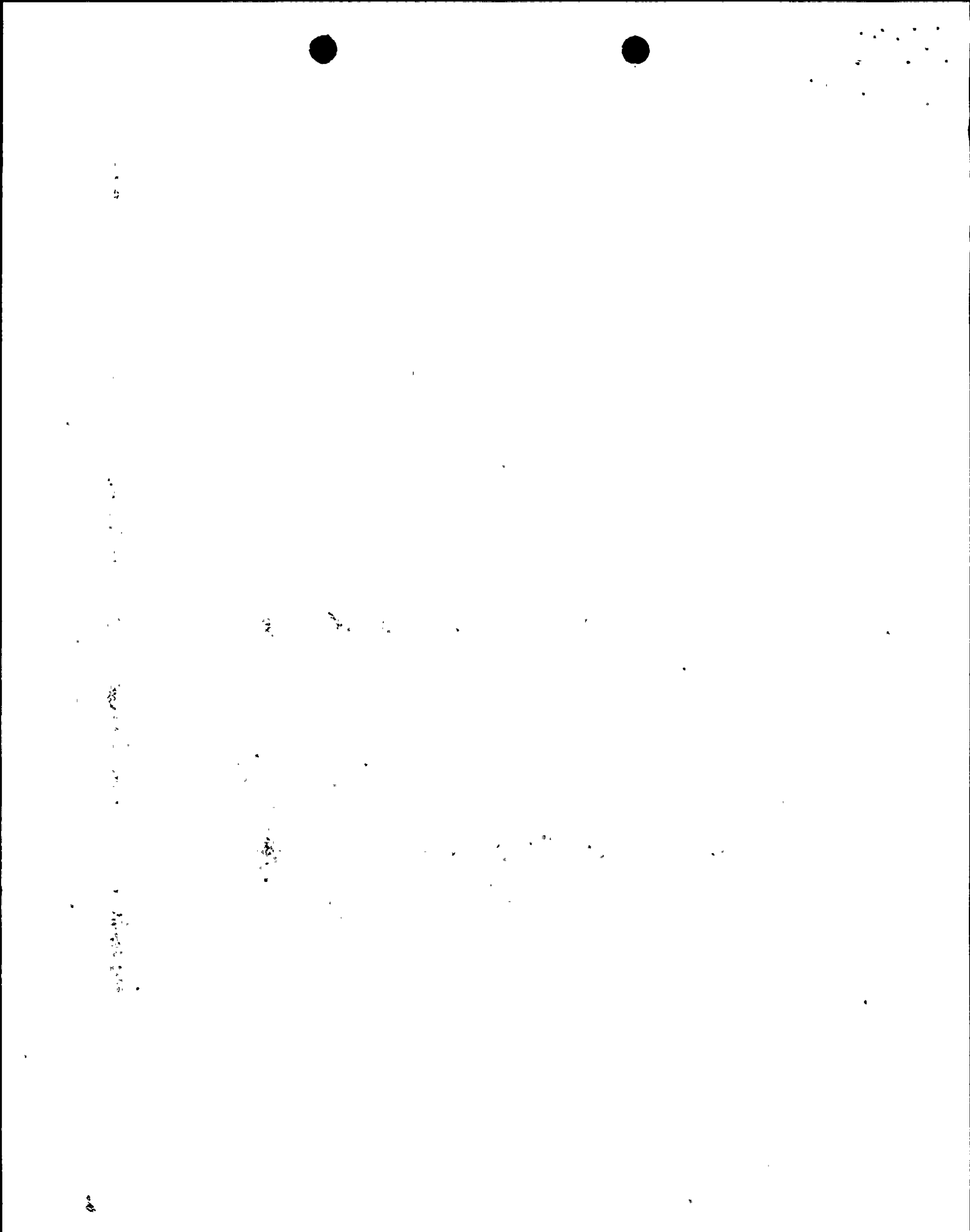
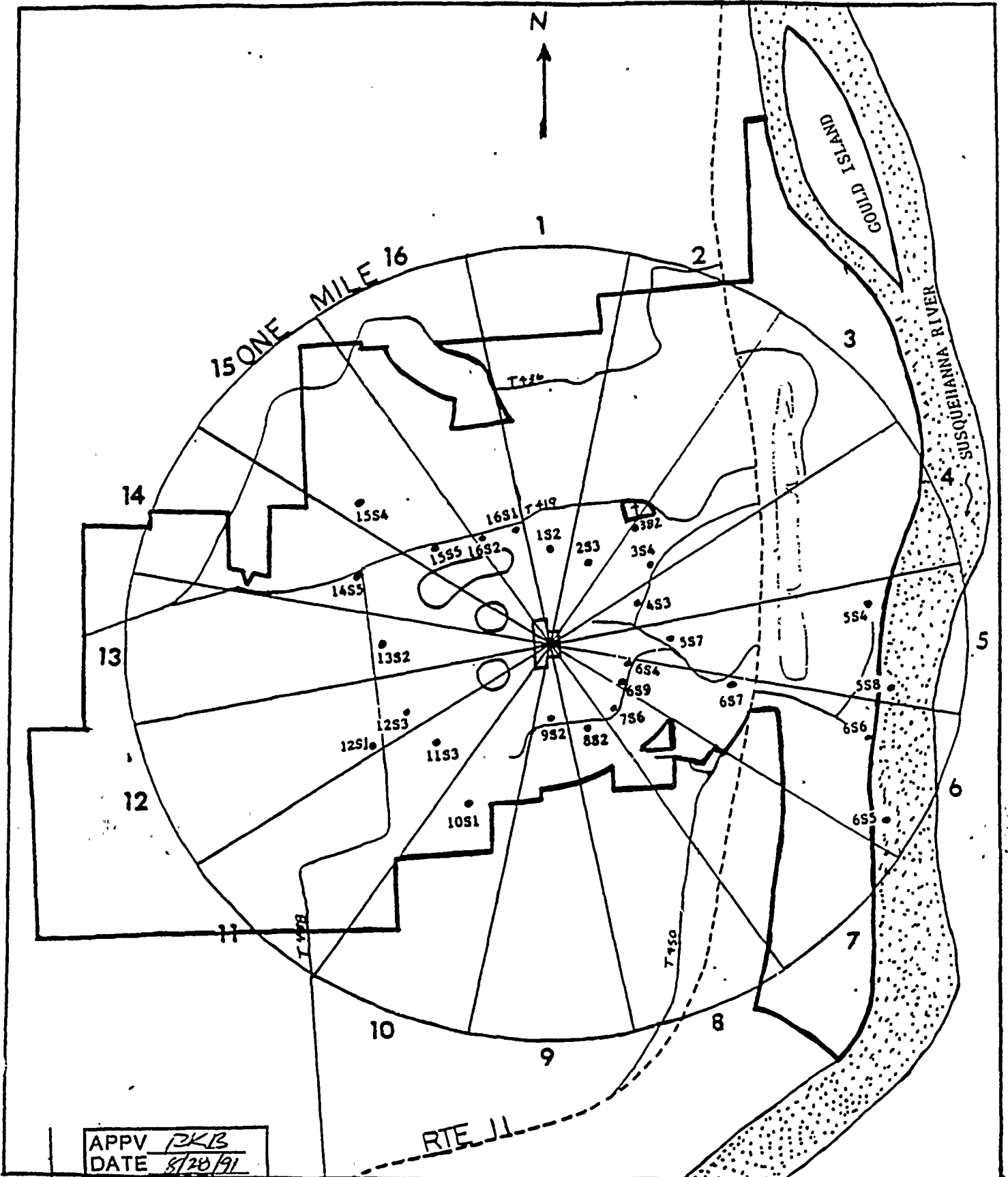


FIGURE 5

ONSITE ENVIRONMENTAL SAMPLING LOCATIONS - SUSQUEHANNA SES



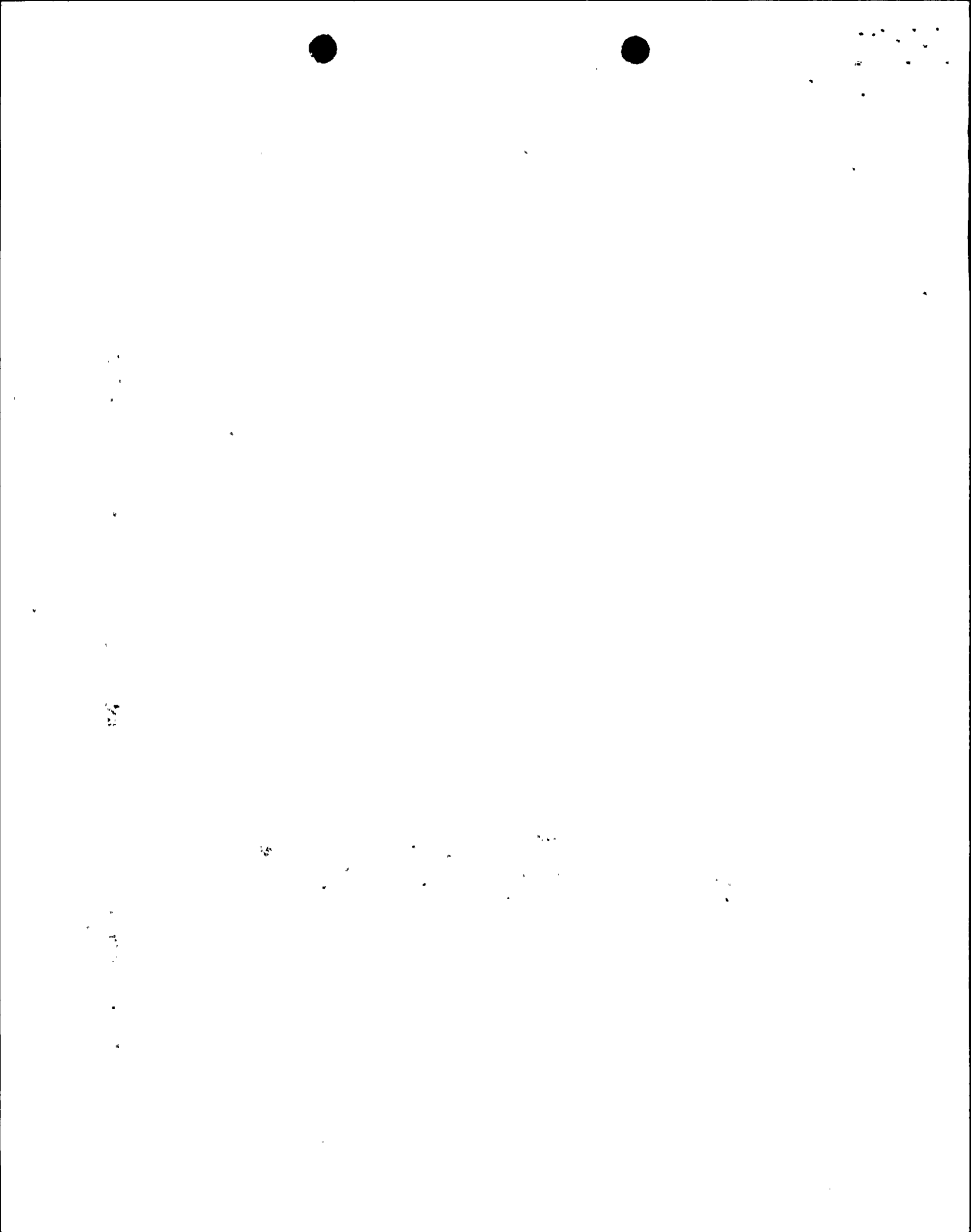
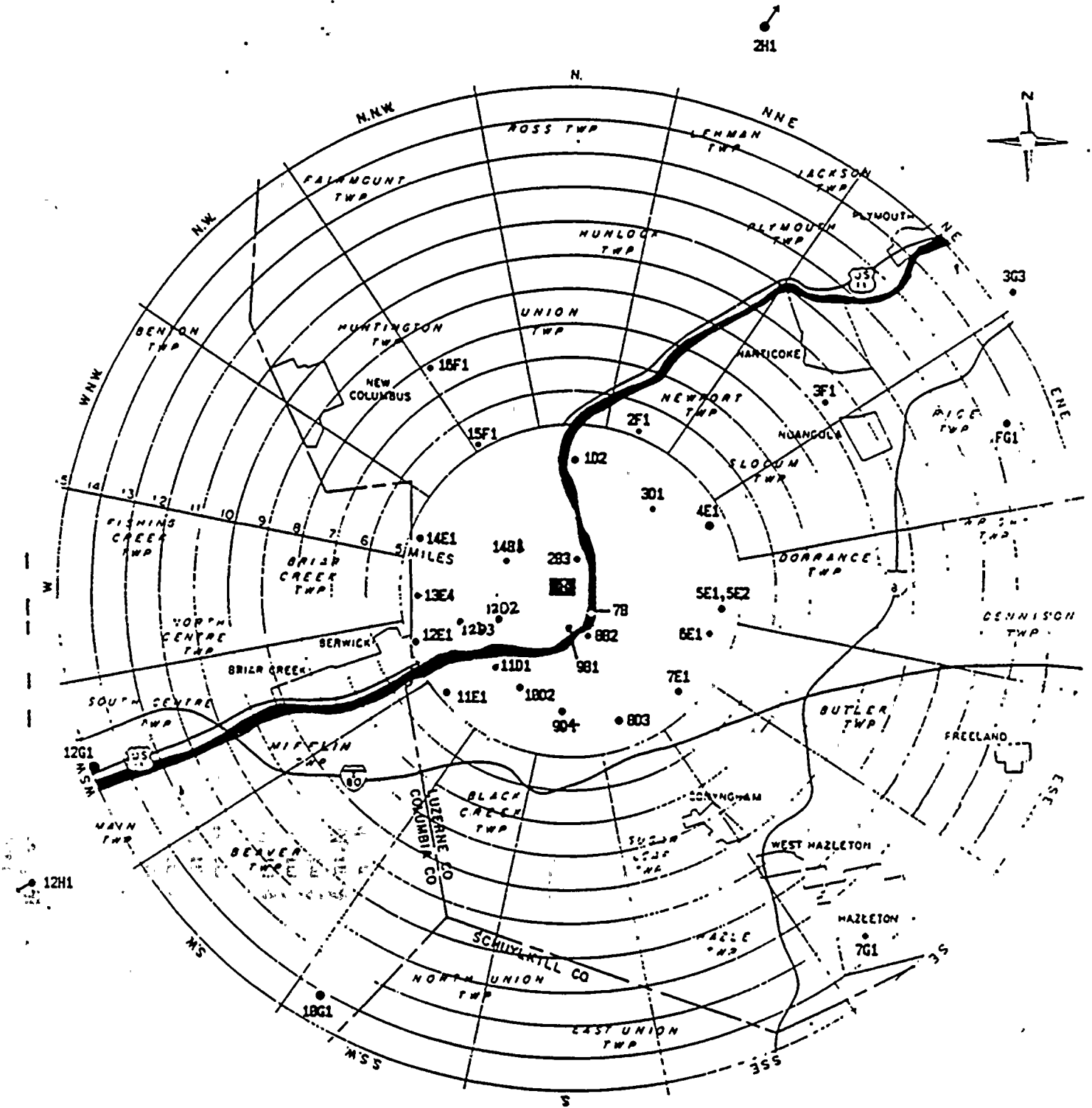
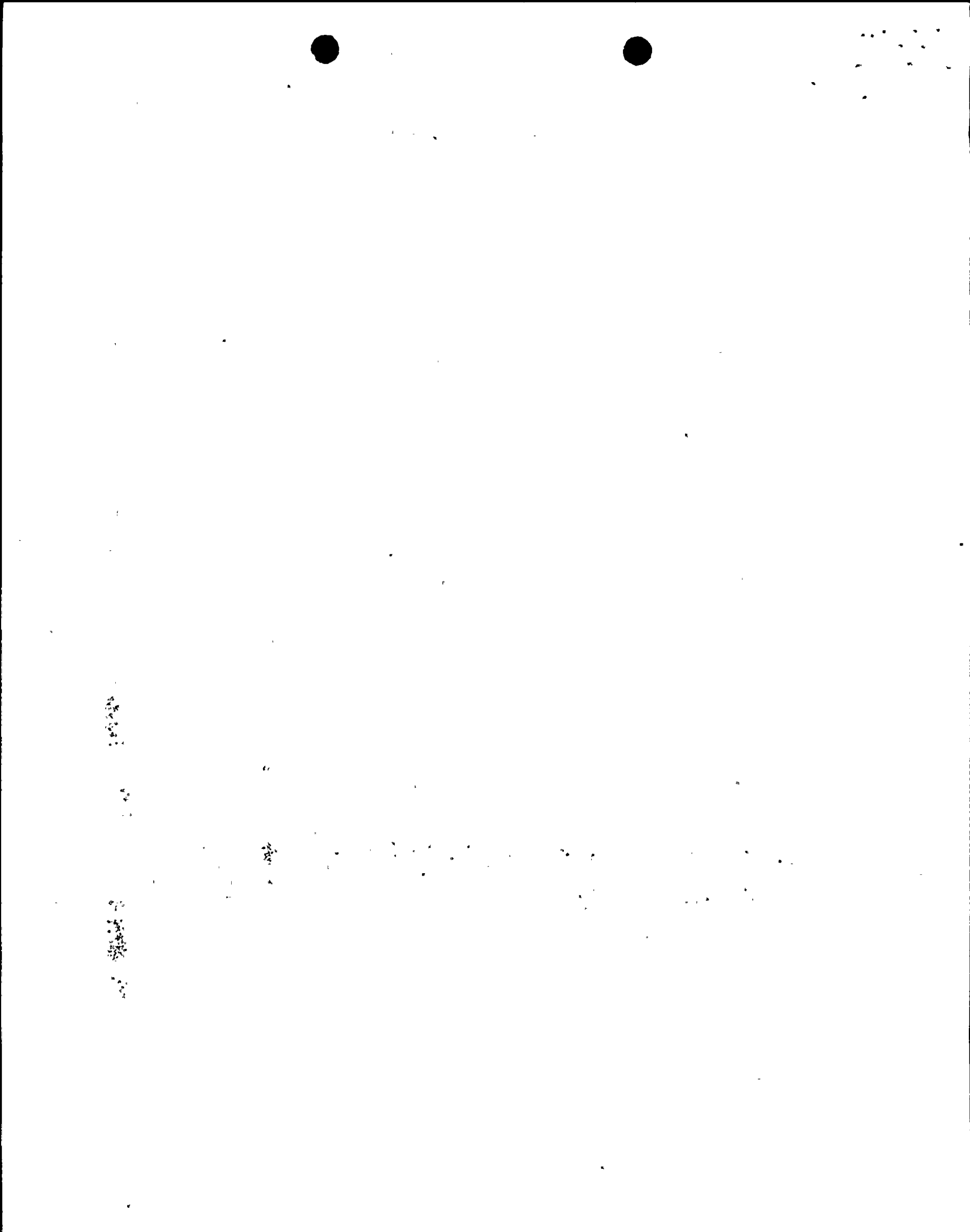


FIGURE 6

OFFSITE ENVIRONMENTAL SAMPLING LOCATIONS - SUSQUEHANNA SES



APPV PKB
DATE 8/28/91



OPERATIONAL RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

<u>Exposure Pathways and/or Sample</u>	<u>Number of Samples and Locations*</u>	<u>Sampling and Collection Frequency</u>	<u>Type and Frequency of Analysis</u>
<u>Airborne</u>			
Radioiodine and Particulates	12S2 (0.4 mi WSW- E.O.F. Building) 9B1 (1.3 mi S - Transmission Line) 5S4 (0.8 mi E - W of Bio. Consult.) 12E1 (4.7 mi WSW- Berwick Hospital) 7G1 (14 mi SE - PP&L Hazleton Chemical Lab) ^a 3S2 (0.5 mi NE - SSES Backup Met. Tower) 15S4 (0.6 mi NW - Transmission Corrodor) 1D2 (3.9 mi N - Mocanaqua Substation) 3D1 (3.4 mi NE - Pond Hill) 12G1 (15 mi WSW- Bloomsburg Service Center) ^a	Continual sampler operation with sample collection weekly.**	Radioiodine Canister: analyze weekly for I-131 Particulate Sample: Analyze for gross beta radioactivity less than 24 hours following filter change. Perform gamma isotopic analysis on composite sample (by location) quarterly.
<u>Direct Radiation</u>	1S2 Perimeter Fence - 0.2 mi N 1D2 Mocanaqua Substation - 4.0 mi N 2S3 Perimeter Fence - 0.2 mi NNE 2B3 Durabond Corporation - 1.3 mi NNE 2F1 St. Adalberts Cemetery - 5.9 mi NNE 3S4 Perimeter Fence - 0.3 mi NE 3D1 Pond Hill - 3.4 mi NE 3F1 Valania Resident (Nanticoke) - 9.1 mi NE 3G3 Wilkes-Barre-Horton St. Substation - 16 mi NE ^a 4S3 Perimeter Fence - 0.2 mi ENE 4E1 Ruckles Hill Road Pole (#) 46422/N35197 - 4.8 mi ENE 4G1 Mountain Top - Industrial Park - 14 mi ENE ^a 5S7 Perimeter Fence - 0.3 mi E 5E2 Bloss Farm - 4.5 mi E 6S4 Perimeter Fence - 0.2 mi ESE 6A4 Former State Police - 0.6 mi ESE	Quarterly	Gamma Dose: Quarterly.

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TABLE 7 (Continued)

Exposure Pathways and/or Sample	Number of Samples and Locations*	Sampling and Collection Frequency	Type and Frequency of Analysis
Sediment from Shoreline	7B Bell Bend - 1.2 mi SE	Semiannually	Gamma isotopic analysis semiannually.
Milk***	12B3 Young Farm - 2.0 mi WSW 10G1 Davis Farm - 14 mi. SSW ^a 14B1 Stola Farm - 1.8 mi. WNW 12D2 Dagostin Farm - 3.7 mi. WSW	Semi-monthly when animals are on pasture, monthly otherwise	Gamma isotopic and I-131 analysis of each sample.
Fish and Invertebrates	Outfall area 2H Falls, PA ^a (Approximately 30 mi NNE)	Semiannually. One sample ^c from each of two recreationally important species from any of the following families: bullhead catfish, sunfish, pikes, or perches.	Gamma isotopic on edible portions.
Food Products	11D1 Zehner Farm - 3.3 mi SW vegetable	At time of harvest	Gamma isotopic on edible portions.

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*The location of samples and equipment were designed using the guidance in the Branch Technical Position to NRC Rev. Guide 4.8, Rev. 1, Nov. 1979, Reg. Guide 48. 1975 and ORP/SID 72-2 Environmental Radioactivity Surveillance Guide. Therefore, the airborne sampler locations were based upon X/Q and/or D/Q.

**A dust loading study (RMC-TR-81-01) concluded that the assumption of 1 for the transmission correction factor for gross beta analysis of air particulate samples is valid. Air particulate samples need not be weighed to determine a transmission correction factor.

***If a milk sample is unavailable for more than two sampling periods from one or more of the locations, a vegetation sample shall be substituted until a suitable milk location is evaluated. Such an occurrence will be documented in the REMP annual report.

^a Control sample location.

^b Two-week composite if calculated doses due to consumption of water exceed one millirem per year. In these cases, I-131 analyses will be performed.

^c The sample collector will determine the species based upon availability, which may vary seasonally and yearly.

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