U.S. NUCLEAR REGULATORY COMMISSION

RESPONSE TO FREEDOM OF INFORMATION ACT (FOIA) REQUEST

PDR 014

NRC FOIA REQUEST NUMBER(S): FOIA-87-540

RESPONSE TYPE: [ ] FINAL [X] PARTIAL 2ND

DATE: OCT 7 1987

DOCKET NUMBER(S) (*If applicable*):

REQUESTER: MR. DAVE AIROZO

PART I. – RECORDS RELEASED OR NOT LOCATED (*See checked boxes*)

[ ] No agency records subject to the request have been located.

[ ] No additional agency records subject to the request have been located.

[ ] Agency records subject to the request that are identified in Appendix _____ are already available for public inspection and copying in the NRC Public Document Room, 1717 H Street, N.W., Washington, DC.

[X] Agency records subject to the request that are identified in Appendix C are being made available for public inspection and copying in the NRC Public Document Room, 1717 H Street, N.W., Washington, DC, in a folder under this FOIA number and requester name.

[ ] The nonproprietary version of the proposal(s) that you agreed to accept in a telephone conversation with a member of my staff is now being made available for public inspection and coying at the NRC Public Document Room, 1717 H Street, N.W., Washington, DC, in a folder under this FOIA number and requester name.

[ ] Enclosed is information on how you may obtain access to and the charges for copying records placed in the NRC Public Document Room, 1717 H Street, N.W., Washington, DC.

[ ] Agency records subject to the request are enclosed. Any applicable charge for copies of the records provided and payment procedures are noted in the comments section.

[ ] Records subject to the request have been referred to another Federal agency(ies) for review and direct response to you.

[ ] In view of NRC's response to this request, no further action is being taken on appeal letter dated _____.

PART II.A – INFORMATION WITHHELD FROM PUBLIC DISCLOSURE

[X] Certain information in the requested records is being withheld from public disclosure pursuant to the FOIA exemptions described in and for the reasons stated in Part II, sections B, C, and D. Any released portions of the documents for which only part of the record is being withheld are being made available for public inspection and copying in the NRC Public Document Room, 1717 H Street, N.W., Washington, DC, in a folder under this FOIA number and requester name.

Comments

8710090259 871007
PDR FOIA
AIROZO87-540 PDR

SIGNATURE, DIRECTOR, DIVISION OF RULES AND RECORDS

Linda Robinson for Donnie Grimsley

NRC FORM 464 (Part I)
(9-86)

FREEDOM OF INFORMATION ACT RESPONSE FOIA NUMBER(S) FOIA-87-546 DATE OCT 7 1987

PART II.B – APPLICABLE FOIA EXEMPTIONS

Records subject to the request that are described in the enclosed Appendices D are being withheld in their entirety or in part under FOIA Exemptions and for the reasons set forth below pursuant to 5 U.S.C. 552(b) and 10 CFR 9.5(a) of NRC Regulations.

	1. The withheld information is properly classified pursuant to Executive Order 12356 (EXEMPTION 1)
	2. The withheld information relates solely to the internal personnel rules and procedures of NRC. (EXEMPTION 2)
	3. The withheld information is specifically exempted from public disclosure by statute indicated: (EXEMPTION 3)
	Section 141-145 of the Atomic Energy Act which prohibits the disclosure of Restricted Data or Formerly Restricted Data (42 U.S.C. 2161-2165).
	Section 147 of the Atomic Energy Act which prohibits the disclosure of Unclassified Safeguards Information (42 U.S.C. 2167).
	4. The withheld information is a trade secret or commercial or financial information that is being withheld for the reason(s) indicated: (EXEMPTION 4)
	The information is considered to be confidential business (proprietary) information.
	The information is considered to be proprietary information pursuant to 10 CFR 2.790(d)(1).
	The information was submitted and received in confidence from a foreign source pursuant to 10 CFR 2.790(d)(2).
X	5. The withheld information consists of interagency or intraagency records that are not available through discovery during litigation. Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process. Where records are withheld in their entirety, the facts are inextricably intertwined with the predecisional information. There also are no reasonably segregable factual portions because the release of the facts would permit an indirect inquiry into the predecisional process of the agency. (EXEMPTION 5)
	6. The withheld information is exempted from public disclosure because its disclosure would result in a clearly unwarranted invasion of personal privacy. (EXEMPTION 6)
	7. The withheld information consists of investigatory records compiled for law enforcement purposes and is being withheld for the reason(s) indicated. (EXEMPTION 7)
	Disclosure would interfere with an enforcement proceeding because it could reveal the scope, direction, and focus of enforcement efforts, and thus could possibly allow them to take action to shield potential wrongdoing or a violation of NRC requirements from investigators. (EXEMPTION 7(A))
	Disclosure would constitute an unwarranted invasion of personal privacy (EXEMPTION 7(C))
	The information consists of names of individuals and other information the disclosure of which would reveal identities of confidential sources. (EXEMPTION 7(D))

PART II.C – DENYING OFFICIALS

Pursuant to 10 CFR 9.9 and/or 9.15 of the U.S. Nuclear Regulatory Commission regulations, it has been determined that the information withheld is exempt from production or disclosure, and that its production or disclosure is contrary to the public interest. The persons responsible for the denial are those officials identified below as denying officials and the Director, Division of Rules and Records, Office of Administration, for any denials that may be appealed to the Executive Director for Operations (EDO).

DENYING OFFICIAL	TITLE/OFFICE	RECORDS DENIED	APPELLATE OFFICIAL	
			SECRETARY	EDO
JOHN C. HOYLE	ASSISTANT SECRETARY OF THE COMMISSION	APPENDIX D	X	

PART II.D – APPEAL RIGHTS

The denial by each denying official identified in Part II.C may be appealed to the Appellate Official identified in that section. Any such appeal must be in writing and must be made within 30 days of receipt of this response. Appeals must be addressed as appropriate to the Executive Director for Operations or to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should clearly state on the envelope and in the letter that it is an "Appeal from an Initial FOIA Decision."

Re: FOIA-87-540
(Second Partial)

APPENDIX C

RECORDS MAINTAINED IN THE PDR UNDER THE ABOVE REQUEST NUMBER

1. 3/4/87 Memorandum to George Felgate from E. William Brach, Background Information for Commissioner Carr's Visit to Beaver Valley. (24 pages)

2. 7/10/84 Letter to Chairman Zech and Commissioners Bernthal and Carr from John M. Arthur, Beaver Valley. (1 page)

3. 8/14/87 Commissioner Carr's Notation Vote Response Sheet, SECY-87-202. (1 page)

Re: FOIA-87-540
(Second Partial)

APPENDIX D

RECORDS TOTALLY WITHHELD - EXEMPTION (5)

1.	Undated	Chairman's Vote Sheet on SECY-87-202. (1 page)
2.	Undated	Commissioner Roberts' Vote Sheet on SECY-87-202. (1 page)
3.	8/11/87	Internal note from P. Gwynn to Chairman Zech re Vote on Beaver Valley Unit 2. (1 page)
4.	8/13/87	Commissioner Bernthal's Vote on SECY-87-202, subject: Beaver Valley Power Station, Unit 2, Full-Power License. (1 page)

August 17, 1987
Washington, D.C.

Mr. Donnie Grimsley
Director, Division of Rules & Records
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

FREEDOM OF INFORMATION ACT REQUEST
FOIA-87-540
Rec'd 8-20-87

Dear Mr. Grimsley:

Pursuant to the Freedom of Information Act, 5 USC 552 et seq., as amended, or any other applicable laws, I hereby request the following material.

1) NRC Commissioners' notation vote sheet regarding the full-power licensing of Duquesne Light Co.'s Beaver Valley-2.

2) All NRC staff or Duquesne Light Co. staff memoranda, notes, recommendations or correspondence with NRC commissioners or their staffs, or other NRC personnel concerning the low-power testing and full-power operation of Beaver Valley-2.

3) Information released under a FOIA filed by Office of Inspector & Auditor Director Sharon Connelly NRC investigation concerning manner in which she and other OIA personnel handled an internal personnel matter (Lisa Shea, EEOC complaint).

If you have any questions or require additional information, please contact me at 463-1659.

Sincerely,

Dave Airozo

Dave Airozo
Assistant Editor
McGraw-Hill
Nuclear Publications
1120 Vermont Ave.
Suite 1200
Washington, D.C. 20005
(202) 463-1659

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

MAR 4 1987

MEMORANDUM FOR: George Felgate
Assistant to Commissioner Carr

FROM: E. William Brach, Executive Coordinator
for Regional Operations
DEDROGR

SUBJECT: BACKGROUND INFORMATION FOR COMMISSIONER CARR'S VISIT TO BEAVER VALLEY

Enclosed is general background information on Beaver Valley Units 1 and 2 for your use in preparing for Commissioner Carr's visit to the site on March 10-11, 1987. The background papers include copies of the most recent SALP reports for both units (Unit 1 - operating, Unit 2 - construction) and a list of open SER issues for Unit 2. If you need any additional information, please contact Bill Kane (Region I, FTS 488-1229) or me.

E. William Brach
Executive Coordinator for
Regional Operations
DEDROGR

Enclosure: Background Information
on Beaver Valley

cc: M. Clausen
C. Ader
J. Austin
J. Meyer
W. Kane, RI

8703120299XA

C-1

BACKGROUND INFORMATION

ON

BEAVER VALLEY NUCLEAR POWER STATION

Utility: Duquesne Light Company
Location: Shippingport, Pennsylvania (5 mi E of East Liverpool, Ohio)
22 Mi NW of Pittsburgh, Pennsylvania
Beaver County, Pennsylvania

	Unit 1	Unit 2
Docket No.	50-334	50-412
CP Issued:	6/26/70	5/3/74
Operating Lic Issued:	7/2/76	Expected 8/87
Initial Criticality:	5/10/76	*
Elec. Ener. 1st Gener:	6/14/76	---
Commercial Operation	10/1/76	---
Reactor Type:	PWR 3-loop	Same
Power Level:	835 MWe (DER): 2652 MWt (LTP)	Same
Architect/Engineer:	Stone & Webster	Same
NSSS Vendor:	Westinghouse	Same
Constructor:	Stone & Webster	Same
Turbine Supplier:	Westinghouse	Same
Condenser Cooling Method:	Natural Draft Cooling Tower	Same
Condenser Cooling Water:	Ohio River	Same

Licensing Project Manager: Peter Tam, NRR (Tel: 492-4409)

NRC Responsible Region: Region I, King of Prussia, Pennsylvania
Thomas E. Murley, Regional Administrator

Div. of Reactor Projects: (Region 1)
William F. Kane, Div. Dir (Tel: 8-488-1229)
Edward C. Wenzinger, Branch Chief
(Tel: 8-488-1224)
Lowell E. Tripp, Section Chief
(Tel: 8-488-1227)
David F. Limroth, Project Engineer
(Tel: 8-488-1121)

Senior Resident Inspector (Unit 1): William M. Troskoski (Tel: 8-412-643-9200)
Senior Resident Inspector (Unit 2): James E. Beall (Tel: 8-412-643-5274)
Resident Inspector (Unit 1): Andra A. Asars (Tel: 8-412-643-9201)
Resident Inspector (Unit 2): Leonard J. Prividy (Tel: 8-412-643-5320)

Report Coordinated by: Andra A. Asars, Resident Inspector, Beaver Valley

*Fuel load date estimated to be 4/30/87.

BEAVER VALLEY NUCLEAR POWER STATION

Duquesne Light - Site Management Personnel

Jack Carey, Senior Vice President, Nuclear Group
Jack Sieber, Vice President, Nuclear Group
James Crockett, Senior Manager, Nuclear Operations

Unit 1

Steve Lacey, Plant Manager
Gene Ewing, Manager, Quality Assurance

Unit 2

Jack Kline, Manager, Engineering and Construction
Rich Swiderski, Project Manager
Gene Ewing, Manager, Quality Assurance

Workforce

Staffing level at the plant:
Unit 1 = 600, plus corporate personnel also located on site.
Unit 2 = 5900

Workshifts

Unit 1 - Five rotating shifts (3 working shifts, 1 off-shift and 1 training).

Unit 2 - Three working shifts with 4000 on daylight shift, 1200 on evening shift and 700 on night shift. On weekends, there are two shifts, daylight and evening with approximately 900 and 200, respectively.

Personnel on Each Shift

Unit 1 (Operations):
2 Senior Reactor Operators (SROs)
2 Reactor Operators (ROs)
1 Shift Technical Advisor
2 Auxiliary Operators

Licensed Reactor Operators

Total Licensed Reactor Operators: 61 (Unit 1)
23 SROs (which includes 17 in plant management)
38 ROs

BEAVER VALLEY NUCLEAR POWER STATION

Reactor Operator Exams

Unit 1

Date Of Exam	Number Of Applicants	Passed	Failed
10/84	12 SROs	11 SROs	1 SRO
	3 ROs	2 ROs	1 RO
2/85	6 ROs	3 ROs	3 ROs
4/85	11 ROs	11 ROs	--
2/86	11 SROs	4 SROs	7 SROs
	5 ROs	5 ROs	--
7/86	5 SROs	3 SROs	2 SROs
	12 ROs	7 ROs	5 ROs

Unit 2

1/87	12 SROs	(Results not yet available)
	8 ROs	

Next Exam Scheduled: 5/87 (Expected to have 12 SROs and 7 ROs).

Plant Simulator

A Unit 1 plant-specific simulator is located onsite in the training center. The simulator was made operational in March 1985.

Control Room

Currently, there is a temporary wall separating the Unit 1 and Unit 2 control rooms. The licensee plans to remove this wall in March-April 1987.

Systematic Assessment of Licensee Performance (SALP)

A Unit 1 SALP review was completed for the period April 1, 1984 through September 30, 1985, and a report issued on May 23, 1986. A copy of this report is attached (Attachment 1). The next SALP review period for Unit 1 covers October 1, 1985 through March 15, 1987. The Region I SALP board is scheduled to meet the week of May 4, 1987. A SALP report is expected to be issued approximately May 29, 1987. A meeting with the licensee is scheduled for early June 1987.

A Unit 2 SALP review was completed for the period April 1, 1985 through March 31, 1986. This report was issued on July 2, 1986; a copy is also attached (Attachment 2). The next SALP review period for Unit 2 covers April 1, 1986 through February 28, 1987. The Region I SALP board is scheduled to meet the week of April 20, 1987. A SALP report is expected to be issued approximately May 10, 1987. A meeting with the licensee is scheduled for mid-May 1987.

BEAVER VALLEY NUCLEAR POWER STATION

The current Beaver Valley Unit 2 SALP is likely to assess the licensee's performance as generally satisfactory (or higher). The licensee has shown improvement in the areas of implementation of design changes and managing and meeting test milestone dates. The licensee has been particularly effective in coordinating schedule adjustments during major preoperational tests. However, continued management attention will be necessary to ensure that the Quality Assurance Program is implemented effectively.

Escalated Enforcement Action

The Unit 1 resident inspectors received an allegation on May 27, 1986, from a contractor radiation technician as he was escorted offsite after having his employment terminated. The alleger expressed several concerns in the areas of radiation control practices and industrial safety. These allegations were investigated by a Region I Health Physics specialist during a subsequent inspection; the allegations were not substantiated and no violations were identified. The alleger filed a complaint with the Department of Labor claiming unfair job termination. A DOL field investigation determined that he was wrongfully fired by the utility and its subcontractor. The licensee has settled this matter out of court. As a result of this allegation, and in accordance with 10 CFR 50.54(f), Region I requested that the licensee provide assurance that this matter has not had a "chilling" effect in discouraging contractor or DLC personnel from bringing safety concerns to NRC's attention. The licensee's response is currently being evaluated.

In September 1986, an inspector identified a violation of NRC reporting requirements at Unit 2. In 1983 and 1984, DLC and Stone & Webster Engineering had identified deficiencies with some Westinghouse 7300 Process Protection System circuit cards. However, the inspector determined that the Construction Deficiency Report filed in accordance with 10 CFR 50.55(e) did not contain an adequate description of corrective actions and was not reported in a timely manner. This violation is currently under consideration for escalated enforcement action.

Emergency Preparedness

An emergency preparedness exercise for Unit 1 was conducted successfully in November 1986. The licensee has been rated as Category I in emergency preparedness in the past several SALPs.

A Unit 2 emergency preparedness exercise is scheduled for October 1987.

Emergency Response Facilities (ERF)

The Emergency Operations Facility (EOF), Technical Support Center (TSC), and Operational Support Center (OSC) became operational in the summer of 1985. The licensee's actions with respect to Supplement 1 to NUREG-0737 cannot be closed until an Emergency Response Appraisal is conducted by the NRC.

BEAVER VALLEY NUCLEAR POWER STATION

Plant Status - Unit 1

Unit 1 was shutdown for a refueling outage May 16, 1986 through August 8, 1986. The next refueling outage is scheduled for November 1987.

Unit 1 is operating at 100% licensed rated power.

Cumulative capacity factor is low, approximately 50.4%. This is primarily due to a 12-month major shutdown imposed by the Commission to backfit seismic requirements. Refueling outages also tend to be long due to numerous modifications. More recently the yearly capacity factor has been on par with other reactors; e.g., 67.3% for 1986, 83.2% for 1985, 66% for 1984, and 66% for 1983.

Plant Status - Unit 2

Applicant's percent construction completed: 98.7% as of January 1987.

Current work activities include: completion of preoperational testing including the loss of offsite power tests, and installation of cable wraps and tray covers.

An as-built team inspection is scheduled for the weeks of March 16 and 23, 1987. A Technical Specification verification team inspection is scheduled for the weeks of March 30 and April 6, 1987. These teams will review as-built safety-related systems, structures and components to verify compatibility with the Unit 2 Technical Specifications, FSAR, and supporting safety analyses.

The SER was issued October 1985 (3 supplements have been issued, 2 more are expected).

Fuel load is scheduled for April 30, 1987.

Significant Open Issues in the SER

There are no significant open issues in the SER. However, the list of open issues and confirmatory issues are attached. (Attachement 3). All open issues can be closed prior to licensing.

Attachments:

1. Unit 1 SALP report dated May 23, 1986.
2. Unit 2 SALP report dated July 2, 1986.
3. SER Open Issues and Confirmatory Issues
4. Site Location and Area Maps

Attachment 4

BEAVER VALLEY NUCLEAR POWER STATION

Location and Description

The Beaver Valley Power Station is located in Shippingport Borough, Beaver County, Pennsylvania, on the south bank of the Ohio River. The site is approximately one mile from Midland, Pennsylvania, five miles from East Liverpool, Ohio, and approximately 25 miles from Pittsburgh, Pennsylvania.

The site comprises approximately 501 acres. Also on the site and immediately to the west of the reactor location is the Shippingport Atomic Power Station (SAPS) managed by Duquesne Light Company for the Department of Energy. The SAPS terminated operations October 1, 1982. Local site topography, site boundary and exclusion radii are shown in Figure 1.0.

Phillis Island lies approximately 400 feet off the shoreline of the site. This island is being excavated as a borrow source for aggregate.

Population

The distance and direction to population centers that have more than approximately 25,000 inhabitants and are located within 50 miles of the site and listed in Table 1.0. The location of these population centers is shown in Figure 2.0.

The approximate distribution of the 1985 population based on census reports, topographic maps, aerial photographs, and field observation is shown in Figure 3.0 when combined with Table 2.0 for 16 directional sectors and radial distances in on-half mile increments out to a distance of 10 miles from the station. Incremental and cumulative populations at these distances are listed in Table 2.0.

Major public facilities in the vicinity of the site are presented in Table 3.0.

Industry

The general area in which the site is located is part of the large Pittsburgh industrial complex, which is centered about the City of Pittsburgh. Table 4.0 lists the major employers in the area surrounding the site.

Transportation

The region is served by five transportation systems; railroads, highways, air, pipelines and waterways.

One of the first rail lines in the region ran from Pittsburgh up the eastern bank of the Beaver River to the Great Lakes region. That line is one of the main Penn Central lines. The world's largest electrically controlled railroad switching yards, capable of handling 10,000 cars per day, is located on this line at Conway about ten miles east of the site.

State Highway 68 provides the main access from the residential areas east of the site to the industrial complexes along the north bank of the Ohio River. State Highway 168 from the south follows roughly along the northeast and east corner of the site and, crossing the Shippingport Bridge, joins Highway 68 immediately across the river from the site. State Highway 18 provides additional access to the east of the site which U.S. Route 30 passes by three miles southwest of the site.

The nearest interstate highway to the site is the Pennsylvania Turnpike (I-76) which runs through the northeastern section of Beaver County about 15 miles northeast of the site. Interstate 79 is located about 18 miles east of the site while Interstate 70 which goes through Wheeling, West Virginia, is about 30 miles to the south. Figure 4.0 shows the local area highway map.

The most important airport in the region for passenger and freight service is the Greater Pittsburgh International Airport, located about 15 miles southeast of the site.

The areas is also served by pipelines carrying natural gas and petroleum products. There are six pipelines crossing the site.

The Ohio River is a major natural resource in this region. In addition to supplying water to industry and towns in the valley and transportation for bulk freight in and out of the region, it serves as a source of recreation for fishermen and boaters alike.

Attachments:

Figure 1.0	(Local Site Topography)
Figure 2.0	(Counties and Towns within 50 Miles)
Figure 3.0	(Population - Distribution)
Figure 4.0	(Site Location)
Table 1.0	(Population Centers with over 25,000 People)
Table 2.0	(Population Distribution for 1985)
Table 3.0	(Public Facilities)
Table 4.0	(Major Employers)

Attachment 3

Table 1.2 Open issues

Issue	Status	SER section
(1) Preservice/inservice testing program		
(a) PST	Deleted in SSER 3	3.9.6
(b) IST	Under review	3.9.6
(2) Pump and valve leak testing	Closed in SSER 3	3.9.6
(3) Inadequate core cooling instrumentation (Item II.F.2 of NUREG-0737)	Closed in SSER 2	4.4.7
(4) Preservice/inservice inspection program		
(a) PSI	Under review	5.2.4.3, 5.4.2.2,
(b) ISI	Updated in SSER 1, remains open	6.6
(5) Safe and alternate shutdown	Unchanged from SER	9.5.1
(6) Management and organization	Under review	13.1
(7) Cross-training program	Closed in SSER 1	13.2.1.2
(8) Emergency preparedness plan	Under review	13.3.3
(9) Initial test program	Closed in SSER 3	14
(10) Control room design review	Updated in SSER 1, remains open	18.1
(11) Safety parameter display system	Updated in SSER 1, remains open	18.2

Table 1.3 Backfit issues

Issue	Status*	SER section
(1) Snow and ice load	C	2.3.1
(2) Underestimation of atmospheric dispersion conditions (χ/Q) at exclusion area boundary and consequences of radioactive release	C	2.3.4, 15.4.8
(3) Potential for flooding from probable maximum precipitation and Peggs Run	C	2.4.2, 2.4.10
(4) Steam generator level control and protection	C2	7.3.3.12
(5) Motor-operated accumulator isolation valve	C	8.3.1.12
(6) Spent fuel pool maximum heat load	C	9.1.3
(7) Fire suppression in the cable spreading room	A	9.5.1.6
(8) Class 1E power for lighting and communication systems	C	9.5.2.1
(9) Application of GDC 5 to communication systems	C	9.5.2.1
(10) Application of GDC 2 and 4 to communication systems	C	9.5.2
(11) Application of GDC 4 to lighting systems	C	9.5.3
(12) Illumination levels in excess of SRP criteria	C	9.5.3
(13) Application of RG 1.26 to areas excluded by RG 1.26	C	9.5.4-9.5.8
(14) Air dryers for emergency diesel generator	C	9.5.6
(15) Alarm for rocker arm lube oil reserve	C	9.5.7
(16) Diesel lube oil fill procedure	C	9.5.7

*A - Issue was discussed in appeal meeting, and partial resolution was addressed in the SER (October 1985). Status updated in SSER 3.

C - Closed in SER (October 1985).

C2 - Closed in SSER 2, confirmatory issue 49 opened.

Table 1.4 Confirmatory issues

Issue	Status	SER section
(1) Operating procedures for continuous communication links	Closed in SSER 3	2.2.2
(2) Differential settlements of buried pipes	Under review	2.5.4.5
(3) Internally generated missiles (outside containment)	Unchanged from SER	3.5.1.1
(4) Internally generated missiles (inside containment)	Unchanged from SER	3.5.1.2
(5) Turbine missiles	Unchanged from SER	3.5.1.3
(6) Analysis of pipe-break protection outside containment	Unchanged from SER	3.6.1
(7) FSAR drawings of break locations	Unchanged from SER	3.6.2
(8) Results of jet impingement effects	Unchanged from SER	3.6.2
(9) Soil-structure interaction analysis	Closed in SSER 1	3.7.3
(10) Design documentation of ASME Code components	Closed in SSER 2	3.9.3.1
(11) Item II.D.1 of NUREG-0737, pressure/ relief valves	Under review	3.9.3.2
(12) Seismic and dynamic qualification of mechanical and electrical equipment (SQRT)	Under review	3.10.1
(13) Pump and valve operability assurance (PVORT)	Under review	3.10.2
(14) Environmental qualification of mechanical and electrical equipment (EQRT)	Under review	3.11
(15) Peak pellet design basis	Closed in SSER 1	4.2.1
(16) Discrepancies in the FSAR	Closed in SSER 1	4.2.2
(17) Rod bowing analysis	Closed in SSER 1	4.2.3.1(6)
(18) Fuel rod internal pressure	Closed in SSER 1	4.2.3.1(8)
(19) Predicted cladding collapse time	Closed in SSER 1	4.2.3.2(2)

Table 1.4 (Continued)

Issue	Status	SER section
(20) Use of the square-root-of-the-sum-of-the-squares method for seismic and loss-of-coolant-accident load calculation	Closed in SSER 1	4.2.3.3(4)
(21) Analysis of combined loss-of-coolant-accident and seismic loads (MULTIFLEX)	Under review	4.2.3.3(4)
(22) Natural circulation test	Updated in SSER 1; remains open	5.4.7.5
(23) Reactor coolant system high point vents	Closed in SSER 3	5.4.12
(24) Blowdown mass and energy release analysis methodology	Under review	6.2.1.3
(25) Containment sump 50% blockage assumption	Updated in SSER 2; remains open	6.2.2
(26) Design modification of automatic reactor trip using shunt coil trip attachment	Under review	7.2.2.3
(27) Automatic opening of service water system valves MOV113C and 113D	Closed in SSER 1	7.3.3.10
(28) IE Bulletin 80-06 concerns	Unchanged from SER	7.3.3.13
(29) NUREG-0737, Item II.F.1, accident monitoring instrumentation positions	Closed in SSER 1	7.5.2.2
(30) Bypass and inoperative status panel	Under review	7.5.2.4.
(31) Revision of the FSAR--cold leg accumulator motor-operated valve position indication	Closed in SSER 3	7.6.2.4
(32) Control system failure caused by malfunctions of common power source or instrument line	Under review	7.7.2.3
(33) Confirmatory site visit		
(a) Independence of offsite power between the switchyard and Class 1E system	Closed in SSER 1	8.2.2.3
(b) Confirmation of the protective bypass	Closed in SSER 1	8.3.1.2

Table 1.4 (Continued)

Issue	Status	SER section
(33) Confirmatory site visit (Continued)		
(c) Verification of DG start and load bypass	Closed in SSER 1	8.3.1.8
(d) DG load capability qualification test	Closed in SSER 1	8.3.1.9
(e) Margin qualification test	Closed in SSER 1	8.3.1.10
(f) Electrical interconnection between redundant Class 1E buses	Closed in SSER 1	8.3.1.13
(g) Verification of electrical independence between power supplies to controls in control room and remote locations	Closed in SSER 1	8.3.3.5
(34) Voltage analysis--verification of test results	Unchanged from SER	8.3.1.1
(35) Documentation of description and analysis of compliance with GDC 50	Unchanged from SER	8.3.3.7.1
(36) Completion of plant-specific core damage estimate procedure before fuel load	Unchanged from SER	9.3.2.2
(37) Training program for the operation and maintenance of the diesel generators	Unchanged from SER	9.5.4.1
(38) Vibration of instruments and controls on diesel generator	Unchanged from SER	9.5.4.1
(39) Surveillance of lube oil level in the diesel generator rocker arm lube oil reservoir	Closed in SSER 2	9.5.7
(40) Solid waste process control program	Unchanged from SER	11.4.2
(41) TMI Action Plan items		
(a) III.D.1.1, postaccident reactor coolant leakage outside containment	Under review	13.5.2
(b) II.K.1.5 and II.K.1.10, IE Bulletins on measures to mitigate small-break LOCAs and loss of feedwater	Under review	15.9.2, 15.9.3
(c) II.K.3.5, automatic reactor coolant pump trip during LOCA	Under review	15.9.9

Table 1.4 (Continued)

Issue	Status	SER section
(41) TMI Action Plan items (Continued)		
(d) II.K.3.17, report on ECCS outage	Under review	15.9.11
(e) II.K.3.31, compliance with 10 CFR 50.46	Closed in SSER 3	15.9.14
(42) Plant-specific dropped rod analysis	Closed in SSER 2	15.4.2
(43) Steam generator tube rupture	Under review	15.6.3
(44) Quality assurance program	Closed in SSER 1	17.4
(45) Cross-training of Unit 1 & 2 operators	Under review	13.2.1.1
(46) Control room isolation on high radiation signal	Under review	7.3.3.9
(47) Review of procedures generation package	Unchanged from SSER 1	13.5.2
(48) Fire protection: Amendment 12 review and site visit		
(a) Amendment 12 review	Closed in SSER 3	9.5.1
(b) Site visit	Unchanged from SSER 2	9.5.1
(c) Safety-related system fire-barrier deviations	Opened in SSER 3	9.5.1
(49) Steam generator high-level trip as non-protection system	Unchanged from SSER 2	7.3, 15.1.2
(50) Implementation letter of ICCI system	Unchanged from SSER 2	4.4.7
(51) Supperheated steam in valve house due to steamline break	Opened in SSER 3; under review	3.6.1
(52) Initial testing		
(a) Accumulator isolation valves	Opened in SSER 3	14.0
(b) SOV, PO, IS tests	Opened in SSER 3	14.0

Table 1.4 (Continued)

Issue	Status	SER section
(52) Initial testing (Continued)		
(c) Plant performance after MSIV closure	Opened in SSER 3	14.0
(d) Steam extraction system and process computer	Opened in SSER 3	14.0

Table 1.5 License condition issues

License condition	Status	SER section
(1) Emergency response capability, RG 1.97, Rev. 2	Specifics provided in SSER 1; under additional generic review	7.5.2.1
(2) Fire protection	Opened in SSER 3	9.5.1

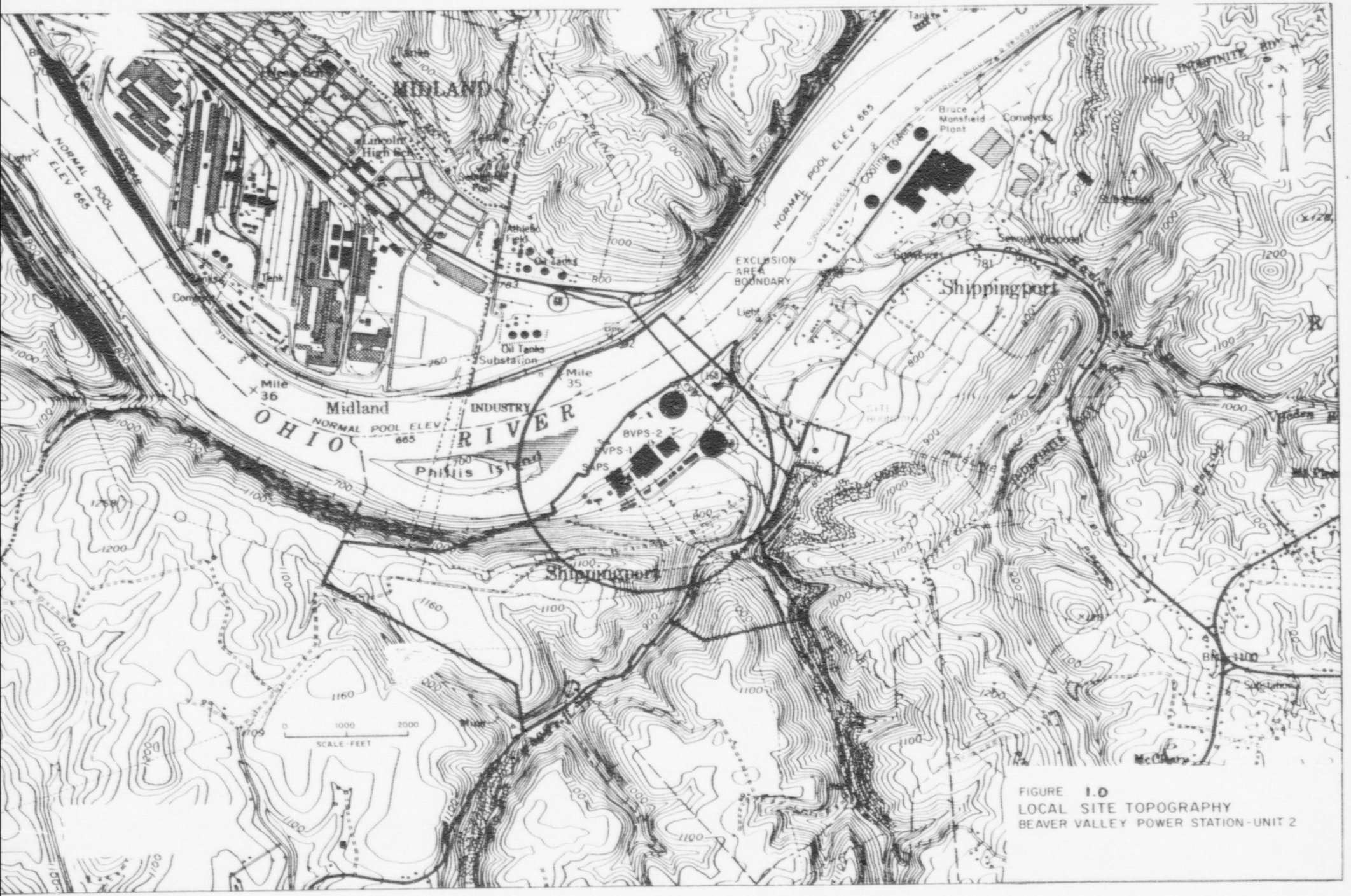


FIGURE 1.0
LOCAL SITE TOPOGRAPHY
BEAVER VALLEY POWER STATION - UNIT 2

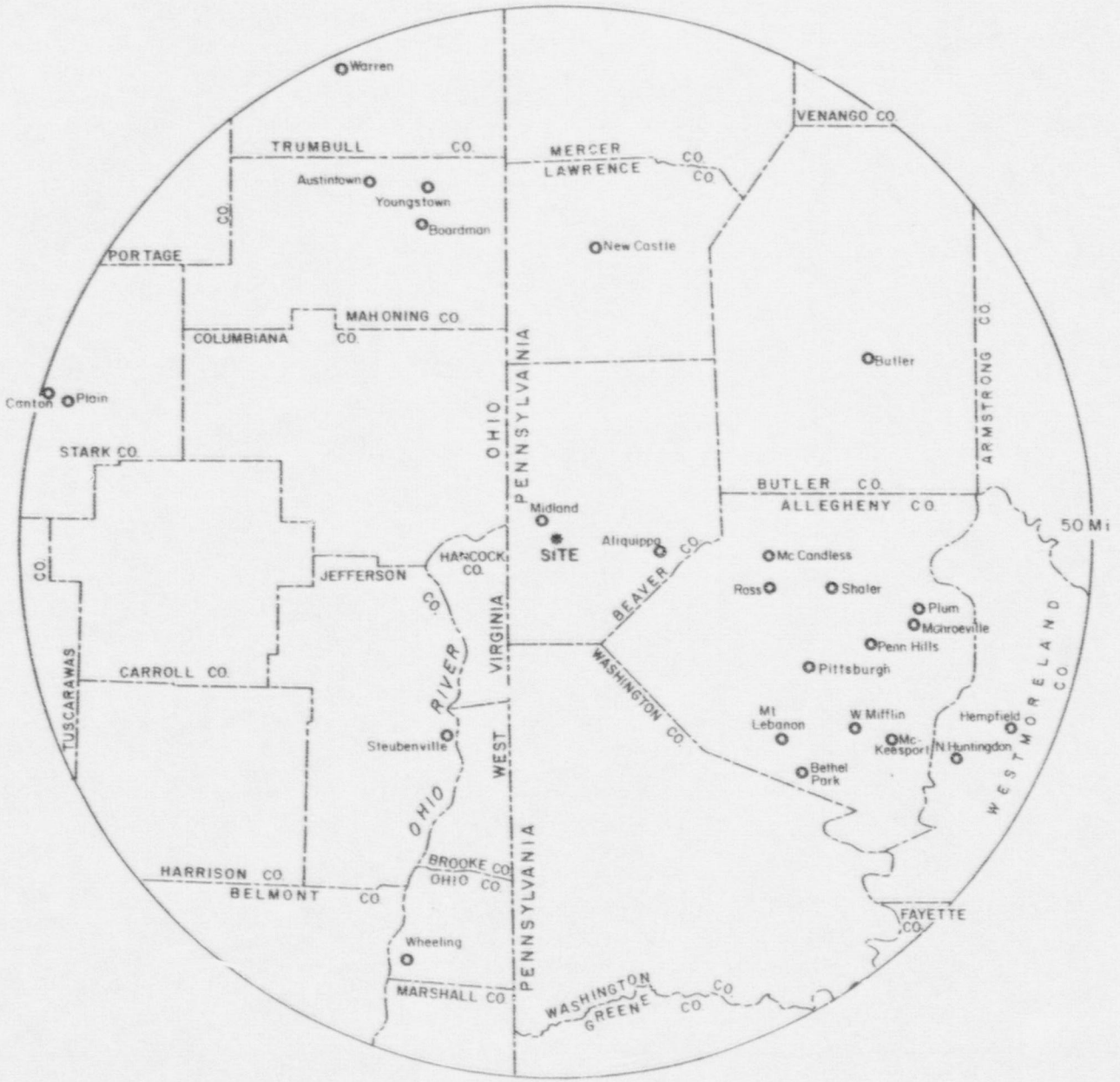


FIGURE 2.0
COUNTIES AND TOWNS WITHIN
50 MILE REGION OF BVPS-2
BEAVER VALLEY POWER STATION - UNIT 2

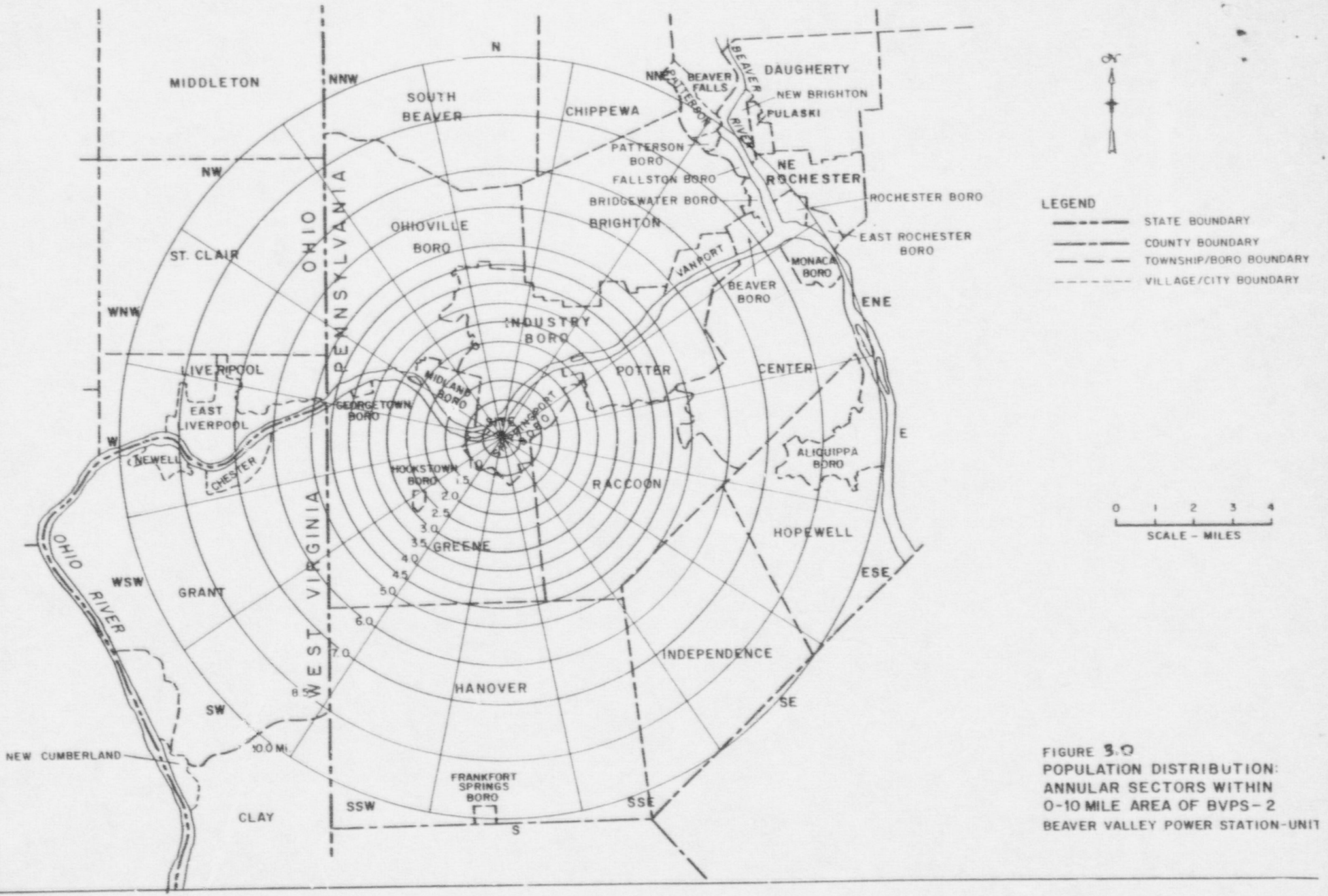
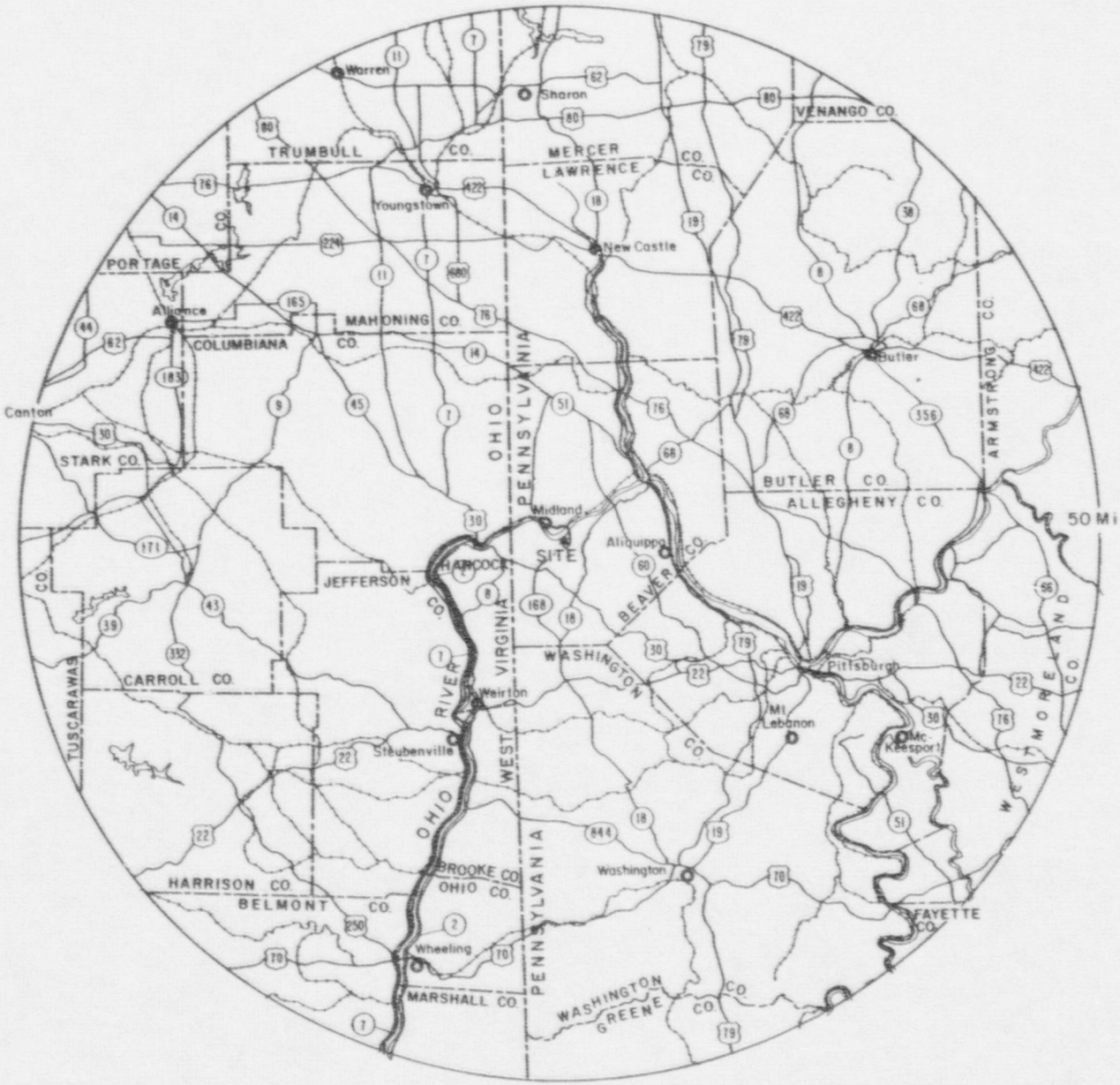


FIGURE 3.0
POPULATION DISTRIBUTION:
ANNULAR SECTORS WITHIN
0-10 MILE AREA OF BVPS-2
BEAVER VALLEY POWER STATION-UNIT



LEGEND:

- INTERSTATE HIGHWAYS
- STATE HIGHWAYS
- RAILROADS
- STATE BOUNDARIES
- COUNTY BOUNDARIES

0 5 10 15 20

SCALE - MILES

FIGURE 4.0
SITE LOCATION
BEAVER VALLEY POWER STATION

TABLE 1.0

POPULATION CENTERS WITH OVER 25,000 PEOPLE IN 1980
WITHIN 50 MILES OF BVPS-2

City/Township/Borough	County	Distance* and Direction from Site	1980 Population
Pennsylvania**			
New Castle City	Lawrence	23.5 miles/N	33,621
Bethel Park Borough	Allegheny	28 miles/SE	34,755
McCandless Township	Allegheny	17 miles/E	26,250
McKeesport City	Allegheny	35 miles/ESE	31,012
Monroeville Borough	Allegheny	36 miles/ESE	30,977
Mt. Lebanon Borough	Allegheny	26 miles/SE	34,414
Penn Hills Township	Allegheny	31 miles/ESE	57,632
Pittsburgh City	Allegheny	22 miles/ESE & SE	423,938
Plum Borough	Allegheny	32 miles/ESE	25,390
Ross Township	Allegheny	21 miles/ESE	35,102
Shaler Township	Allegheny	24 miles/ESE	33,694
West Mifflin Borough	Allegheny	32 miles/SE	26,279
Hempfield Township	Westmoreland	45 miles/ESE	43,396
North Huntingdon Township	Westmoreland	39 miles/ESE	31,517
Ohio***			
Warren City	Trumbull	45 miles/NNW	56,629
Canton City	Stark	50 miles/WNW	110,053
Plain Township	Stark	48.5 miles/WNW	32,431
Steubenville City	Jefferson	23 miles/SSW	26,400
Austintown Township	Mahoning	34 miles/NNW	37,664
Boardman Township	Mahoning	33 miles/NNW	41,833
Youngstown City	Mahoning	32 miles/NNW	115,427
West Virginia****			
Wheeling City	Ohio	36.5 miles/SSW	42,874

NOTES:

*Distance to closest boundary
**U.S. Department of Commerce, Bureau of the Census, 1982a.
***U.S. Department of Commerce, Bureau of the Census, 1982b.
****U.S. Department of Commerce, Bureau of the Census, 1982c.

TABLE 2.0

POPULATION DISTRIBUTION FOR 1985, 0-10 MILES

Distance from BVPS-2 (miles)

Direction	0.0-0.5	0.5-1.0	1.0-1.5	1.5-2.0	2.0-2.5	2.5-3.0	3.0-3.5	3.5-4.0	4.0-4.5	4.5-5.0	5.0-6.0	6.0-7.0	7.0-8.5	8.5-10.0	Total
N	0	0	0	37	37	47	220	138	158	230	472	284	535	969	3,127
NNE	0	0	7	314	27	41	82	62	101	132	2,620	599	705	3,851	8,541
NE	0	0	7	0	155	355	561	94	83	232	513	1,563	4,947	12,822	21,383
ENE	24	34	0	0	155	355	561	94	83	232	513	1,563	4,947	12,822	21,383
E	2	56	55	0	62	100	92	69	33	44	306	3,562	2,080	10,296	16,757
ESE	28	0	16	41	269	103	275	137	100	43	238	1,290	10,467	14,451	27,458
SE	6	29	3	137	53	78	122	175	144	169	365	398	1,221	7,662	10,562
SSE	11	2	19	134	66	131	84	25	0	0	353	88	617	660	2,190
S	0	2	11	7	49	20	61	29	69	346	180	71	264	396	1,505
SSW	0	0	11	14	126	69	22	83	139	182	479	45	525	434	2,129
SW	0	11	11	22	50	28	68	79	47	77	252	24	405	402	1,476
WSW	0	0	4	72	90	278	205	136	158	90	286	245	357	644	2,565
W	0	0	4	7	54	108	61	65	25	73	548	658	701	504	2,808
WNW	0	0	4	11	22	36	54	14	25	93	2,300	4,801	12,520	6,472	26,352
NW	0	5	0	11	0	6	23	280	162	426	549	380	3,319	2,280	7,441
NNW	0	287	1,051	948	559	1,680	230	439	325	138	390	85	305	243	6,690
	0	75	96	64	26	50	67	0	16	347	698	103	372	265	2,179
Total	71	501	1,302	1,819	1,645	3,150	2,227	1,825	1,585	2,622	10,549	14,196	39,340	62,351	143,163

TABLE 3.0

PARKS AND RECREATION FACILITIES WITHIN 10 MILES OF BVPS-2

Park/Recreation Area	Sponsorship	1981 Attendance (Visitor-days)	Approximate Distance from Station (Miles)	Direction from Station
Game Lands Number 189	Pennsylvania Game Commission	Not tabulated[1]	7	SSE
Game Lands Number 173	Pennsylvania Game Commission	Not tabulated[1]	3.5	NNW
Raccoon State Park	State of Pennsylvania	468,852[2]	6-9[3]	S-SSW[3]
Brady Run County Park	Beaver County, Pennsylvania	32,300[4]	8-9[5]	NNW
Tomlinson State Park	State of West Virginia	193,880[6]	10	SW-WSW[7]
Beaver Creek State Forest	State of Ohio	729,930[8]	10	WNW

NOTES:

1. Pennsylvania Department of Natural Resources, Game Commission 1982a.
2. Pennsylvania Department of Natural Resources, Bureau of State Parks 1982b.
3. Allocates visitors to south sector, 8 miles from station at park entrance and camping areas.
4. Beaver Valley Parks Department 1982.
5. West Virginia Department of Natural Resources 1982.
6. Operates May 21-September 30, allocates visitors 8 miles from station at park entrance.
7. Allocates visitors equally between SW and WSW sectors.
8. Ohio Department of Natural Resources, Division of Parks and Recreation 1982.

TABLE 4.0

MAJOR INDUSTRIAL EMPLOYERS WITHIN
10 MILES OF BVPS

No.*	Product Type	Name of Facility	Location	Approximate Distance & Direction from Site (miles)	Estimated Number of Employees** (1983)
1	Steel	Jones & Laughlin Steel Corporation - Midland Works	Midland, Pa.	1 NW	250
2	Steel	E.W. Bliss Co. - MacIntosh-Hemphill Division	Midland, Pa.	1 NW	290
3	Zinc	St. Joe Minerals Co., - Smelting Division	Potter Township, Pa.	6 NE	489
4	Electrical	Westinghouse Electric Corp.	Beaver, Pa.	8 NE	1,631
5	Chinaware	The Hall China Co.	East Liverpool, Ohio	7 W	283
6	Petroleum refining	Quaker State Oil Refining Corp.	Newell, W.Va.	10 W	188
7	Dinnerware	Homer Laughlin China Co.	Newell, W.Va.	9 W	855
8	Plastics	Arco-Polymers	Potter Township, Pa.	4.5 NE	600
9	Steel	PBI Industries	Rochester, Pa.	9.5 NE	125
10	Glassware	Anchor Hocking Corp. - Phoenix Glass	Monaca, Pa.	9 NE	600

TABLE 4.0 (cont'd)

No.*	Product Type	Name of Facility	Location	Approximate Distance & Direction from Site (miles)	Estimated Number of Employees** (1983)
11	Steel tubing	Pittsburgh Tube Co.	Monaca, Pa.	9 NE	239
12	Steel	Teledyne Vasco-Colonial	Monaca, Pa.	9 NE	105
13	Electricity	Pennsylvania Power Company, Bruce Mansfield Plant	Shippingport, Pa.	1 ENE	1,027
14	Steel	Jones & Laughlin Steel Corp. Aliquippa Works	Aliquippa, Pa.	9 E	7,500
15	Ladle Brick	Globe Refactories, Inc.	Newell, W.Va.	9.5 W	229
16	Elec. insulators	Ohio Brass Co.	Newell, W.Va.	9 W	150

NOTES:

*Refer to Figure 2.2-1 for industry locations.
**Stone & Webster Engineering Corporation 1983.