

PSEG Site

Early Site Permit Application

Part 3

Environmental Report

Revision 1

**PSEG Site
ESP Application
Part 3, Environmental Report**

MASTER TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
CHAPTER 1 INTRODUCTION		
1.0	INTRODUCTION.....	1.1-1
1.1	PROPOSED ACTION	1.1-1
1.2	THE PROPOSED PROJECT	1.2-1
1.3	STATUS OF REVIEWS, APPROVALS, AND CONSULTATIONS.....	1.3-1
1.4	METHODOLOGY	1.4-1
CHAPTER 2 ENVIRONMENTAL DESCRIPTION		
2.1	SITE LOCATION	2.1-1
2.2	LAND.....	2.2-1
2.3	WATER	2.3-1
2.4	ECOLOGY	2.4-1
2.5	SOCIOECONOMICS.....	2.5-1
2.6	GEOLOGY	2.6-1
2.7	METEOROLOGY AND AIR QUALITY	2.7-1
2.8	RELATED FEDERAL AND OTHER PROJECT ACTIVITIES.....	2.8-1
CHAPTER 3 PLANT DESCRIPTION		
3.0	INTRODUCTION.....	3.0-1
3.1	EXTERNAL APPEARANCE AND PLANT LAYOUT	3.1-1
3.2	REACTOR POWER CONVERSION SYSTEM	3.2-1
3.3	PLANT WATER USE	3.3-1
3.4	COOLING SYSTEM.....	3.4-1
3.5	RADIOACTIVE WASTE MANAGEMENT SYSTEM.....	3.5-1
3.6	NON-RADIOACTIVE WASTE SYSTEMS.....	3.6-1
3.7	POWER TRANSMISSION SYSTEM.....	3.7-1
3.8	TRANSPORTATION OF RADIOACTIVE MATERIALS	3.8-1

**PSEG Site
ESP Application
Part 3, Environmental Report**

MASTER TABLE OF CONTENTS (CONTINUED)

<u>Section</u>	<u>Title</u>	<u>Page</u>
CHAPTER 4		
ENVIRONMENTAL IMPACTS OF CONSTRUCTION		
4.0	INTRODUCTION.....	4.0-1
4.1	LAND USE IMPACTS	4.1-1
4.2	WATER-RELATED IMPACTS.....	4.2-1
4.3	ECOLOGICAL IMPACTS	4.3-1
4.4	SOCIOECONOMIC IMPACTS	4.4-1
4.5	RADIATION EXPOSURE TO CONSTRUCTION WORKERS	4.5-1
4.6	MEASURES AND CONTROLS TO LIMIT ADVERSE IMPACTS DURING CONSTRUCTION	4.6-1
CHAPTER 5		
ENVIRONMENTAL IMPACTS OF OPERATION		
5.0	INTRODUCTION.....	5.0-1
5.1	LAND USE IMPACTS	5.1-1
5.2	WATER RELATED IMPACTS.....	5.2-1
5.3	COOLING SYSTEM IMPACTS	5.3-1
5.4	RADIOLOGICAL IMPACTS OF NORMAL OPERATION.....	5.4-1
5.5	ENVIRONMENTAL IMPACT OF WASTE	5.5-1
5.6	TRANSMISSION SYSTEM IMPACTS	5.6-1
5.7	URANIUM FUEL CYCLE AND TRANSPORTATION IMPACTS.....	5.7-1
5.8	SOCIOECONOMIC IMPACTS	5.8-1
CHAPTER 6		
ENVIRONMENTAL MEASUREMENTS AND MONITORING PROGRAMS		
6.1	THERMAL MONITORING.....	6.1-1
6.2	RADIOLOGICAL ENVIRONMENTAL MONITORING	6.2-1
6.3	HYDROLOGICAL MONITORING	6.3-1
6.4	METEOROLOGICAL MONITORING	6.4-1
6.5	ECOLOGICAL MONITORING.....	6.5-1
6.6	CHEMICAL MONITORING	6.6-1
6.7	SUMMARY OF MONITORING PROGRAMS.....	6.7-1

**PSEG Site
ESP Application
Part 3, Environmental Report**

MASTER TABLE OF CONTENTS (CONTINUED)

<u>Section</u>	<u>Title</u>	<u>Page</u>
----------------	--------------	-------------

**CHAPTER 7
ENVIRONMENTAL IMPACTS OF POSTULATED ACCIDENTS INVOLVING RADIOACTIVE
MATERIALS**

7.1	DESIGN BASIS ACCIDENTS	7.1-1
7.2	SEVERE ACCIDENTS	7.2-1
7.3	SEVERE ACCIDENT MITIGATION ALTERNATIVES	7.3-1
7.4	TRANSPORTATION ACCIDENTS	7.4-1
7A	TRAGIS AND RADTRAN INPUT AND OUTPUT	7A-1

**CHAPTER 8
NEED FOR POWER**

8.0	NEED FOR POWER	8.0-1
8.1	DESCRIPTION OF POWER SYSTEM	8.1-1
8.2	POWER DEMAND	8.2-1
8.3	ASSESSMENT OF NEED FOR POWER.....	8.3-1
8.4	POWER SUPPLY.....	8.4-1
8A	NEW JERSEY UNIT LEVEL BREAKDOWN.....	8A-1

**CHAPTER 9
ALTERNATIVES**

9.1	NO-ACTION ALTERNATIVE.....	9.1-1
9.2	ENERGY ALTERNATIVES	9.2-1
9.3	ALTERNATIVE SITES	9.3-1
9.4	ALTERNATIVE PLANT AND TRANSMISSION SYSTEMS	9.4-1

**CHAPTER 10
ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION**

10.0	INTRODUCTION.....	10.0-1
10.1	UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS.....	10.1-1
10.2	IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES ...	10.2-1
10.3	RELATIONSHIP BETWEEN SHORT-TERM USE AND LONG TERM PRODUCTIVITY OF THE HUMAN ENVIRONMENT.....	10.3-1
10.4	BENEFIT-COST BALANCE	10.4-1
10.5	CUMULATIVE IMPACTS	10.5-1