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December 14, 1999

Mr. Richard Benas
Project Manager
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Of Environmental Conservation
50 Wolf Road
Albany, NY 12233

Re: SPDES Permit Renewal Applications, Permit Nos.
NY 0008231 (Roseton)
NY 0004472 (Indian Point)
NY 0005711 (Bowline Point)

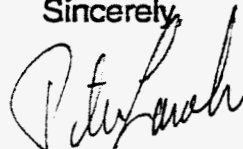
Dear Mr. Benas:

On behalf of Central Hudson Gas & Electric Corp., Consolidated Edison Company of New York, Inc., New York Power Authority, and Southern Energy New York, I am submitting 8 copies of a Draft Environmental Impact Statement (DEIS) for the renewal of SPDES permits for Roseton Units 1 & 2, Indian Point Units 2 & 3, and Bowline Point Units 1 & 2. This DEIS is forwarded in support of the Utilities' applications for SPDES permit renewals submitted to the Department on April 3, 1992. A preliminary DEIS was submitted to the Department in July, 1993. The enclosed DEIS has been updated to address completeness items from the 1993 draft as requested by the Department.

A complete set (both volumes) of the DEIS is also being sent simultaneously to each of the names on the enclosed cc: list.

Please call me at 212 460-4733 if you have any questions about the submittal.

Sincerely,

A handwritten signature in dark ink, appearing to read "Peter Lanahan", written over the word "Sincerely,".

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DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITS
FOR BOWLINE POINT, INDIAN POINT 2& 3, AND ROSETON STEAM
ELECTRIC GENERATING STATIONS

CENTRAL HUDSON GAS & ELECTRIC CORP.
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
NEW YORK POWER AUTHORITY
SOUTHERN ENERGY NEW YORK

DECEMBER 1999

Project Locations: Town of Newburgh, Orange County, New York
Town of Buchanan, Westchester County, New York
Town of Haverstraw, Rockland County, New York

Lead Agency: New York State Department of Environmental Conservation
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Prepared by: © Central Hudson Gas & Electric Corp.
Consolidated Edison Company of New York, Inc.
New York Power Authority
Southern Energy New York

Date of Acceptance of Draft EIS:

Date and Location of SEQRA Hearing:

Public Comment Period:

I. Table of Contents

I. TABLE OF CONTENTS

I TABLE OF CONTENTS

List of Tables
List of Figures

II ACRONYMS

III EXECUTIVE SUMMARY

IV PROPOSED ACTION

A. Description of the Proposed Action

1. The Action
2. Proposed Operations as They Pertain to Discharge Permit Renewal

B. Description of Cooling Systems in Place at Each Station

1. Roseton
2. Indian Point
3. Bowline Point

C. Operational Practices

1. Overview of New York Power Pool System
2. Hudson River Utilities Systems

D. Schedule for Issuance of Modified SPDES Permits

E. Regulatory Setting

1. NPDES/SPDES Permitting
2. New York State Coastal Management Program
3. Hudson River Valley Greenway Program

F. Historical Setting of SPDES Permits

V. ENVIRONMENTAL SETTING

A. General Overview

1. Geography
2. Physiography
3. Climate
4. Vegetation
5. Wildlife
6. History of Human Settlement and Land Use
7. Cultural and Aesthetic Resources
8. Recreational Resources
9. Commercial and Industrial Use

B. Physical Characteristics of the Estuary

1. Basin Morphometry
2. Freshwater Flow
3. Tides
4. Water Temperature
5. Sediment Relationships

C. Chemical Characteristics of the Estuary

1. Salinity
2. Nutrients
3. Toxics
4. Dissolved Oxygen

D. Biological Resources of the Estuary

1. Hudson River Aquatic Ecosystem
2. Life History and Abundance of Selected Species
3. Fish Community
4. Summary

VI. ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION

A. Introduction

B. Aquatic Impacts

1. Entrainment Effects
2. Impingement Effects
3. Combined Effects of Entrainment and Impingement
4. Effects of Thermal Discharges
5. Water Quality Effects
6. Summary of Aquatic Impacts

C. Other Impacts

1. Wildlife Impacts
2. Air Effects

VII. MITIGATION ASSOCIATED WITH THE PROPOSED ACTION

A. Introduction

B. Entrainment

1. Background
2. Mitigation

C. Impingement

1. Roseton
2. Indian Point
3. Bowline Point

D. New Technologies

1. Roseton
2. Bowline Point

VIII. ALTERNATIVES

A. Introduction

B. Alternatives That Reduce Cooling Water Use

1. Prescribed Outages
2. Efficient Cooling Water Flow Rates

- 3. Closed Cooling Water Systems
- C. Alternatives That Exclude or Deter Fish From Entering the Intakes
 - 1. Ristroph Modified Vertical Travelling Water Screens
 - 2. Cylindrical Wedge-Wire (Johnson) Screens
 - 3. Fine-Mesh Screens
 - 4. Barrier Nets
 - 5. Fine Mesh Barrier Systems
 - 6. Behavioral Systems
- D. Other Technology Alternatives
 - 1. District Heating and Cooling
 - 2. Importation of Power
 - 3. Multiple Choice Alternative
- E. No Action
- F. Permit Denial
- G. Other Actions
 - 1. Resource-Directed Activities
 - 2. Habitat Directed Activities
 - 3. Costs and Benefits
- IX. ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED
- X. IRREVERSIBLE AND IRRETRIEVABLE COMITMENTS OF RESOURCES
 - A. Biological Resources
 - B. Water Resources
 - C. Air Resources
 - D. Energy
 - E. Construction Materials

- F. Cultural Resources
- XI. EFFECTS OF THE PROPOSED ACTION ON USE AND CONSERVATION OF ENERGY RESOURCES
 - A. Efficiency
 - B. Relationship with the New York State Energy Plan
- XII. References
- XIII. List of Preparers

APPENDICES (Separate Volume)

Appendix IV

- IV-1 Index of Fish Protection for Five Taxa of Fish Based on the 1981 and 1987 SPDES Permits for the Bowline, Indian Point, and Roseton Power Plants
- IV-2 Maps
- IV-3 Correspondence
- IV-4 Waste Streams
- IV-5 Coastal Assessment Forms

Appendix V

- V-1 List of Utility Sponsored Studies
- V-2 Indices of Abundance Based on Data from the Utilities Longitudinal River Survey, Fall Shoals Survey, and Beach Seine Survey
- V-3 Sampling Programs and Data Evaluations

Appendix VI

- VI-1-A Entrainment Process and Sampling
- VI-1-B Methods Used to Estimate Entrainment Effects
- VI-1-C Sensitivity Analysis Regarding the Effect of Morone
 PYSL Identification on the Assessment of Effects of Power
 Plant Entrainment of Striped Bass and White perch
 Populations in the Hudson River
- VI-1-D-1 Estimated Number of Fish Killed Due to Entrainment
- VI-1-D-2 Estimated Number of Fish Entrained
- VI-2-A Impingement Process and Sampling
- VI-2-B Methods for Estimating Conditional Impingement Mortality Rates
- VI-2-C Mark-recapture Methods
- VI-2-D Additional Impingement Estimates
- VI-3-A Thermal Modeling of Ebb and Flood Tide Thermal Plumes
- VI-3-B Thermal Modeling of Near Slackwater Tide Thermal Plumes
- VI-4-A Striped Bass Population Modeling
- VI-4-B Atlantic Tomcod Population Modeling
- VI-4-C American Shad Population Modeling
- VI-4-D Bay Anchovy Population Modeling
- VI-5-A The Pricing of Striped Bass: Wholesale and Retail Mark-ups,
 Fall 1997
- VI-5-B Striped Bass Benefits Assessment
- VI-6 American Shad Benefits Assessment

Appendix VIII

VIII-1-A Evaluation of Alternative Outage Schedules Based on a
Multi-Species Approach

VIII-1-B Response to Question 341a

VIII-2-A Roseton Flow Reduction Report

VIII-2-B Bowline Flow Reduction Report

VIII-3-A Cooling Tower Evaluation

VIII-4 District Heating

LIST OF FIGURES

Figure No.	Title
IV-1	Water Flow Through a Power Plant Using Once-Through Cooling
IV-2	Location of the Roseton, Indian Point, and Bowline Point Generating Stations on the Hudson River Estuary
IV-3	Property line designations for the Roseton Generating Station
IV-4	Schematic of Roseton Generating Station Intake and Discharge
IV-5	Plan View of Roseton Generating Station Cooling Water System
IV-6	Roseton Generating Station Cooling Water System
IV-7	Cross Section of Roseton Generating Station Cooling Water System
IV-8	Diagram of Dual-Flow Screen Unit
IV-9	Diagram of Dual-Flow Screen Basket
IV-10	Plan Schematic of Dual-Flow Screen Well Showing Curved Corner Additions
IV-11	Schematic Diagram of Indian Point Cooling Water System
IV-12	Indian Point Unit 2 Cooling Water System
IV-13	Cross Section of Unit 2 Cooling Water System at Indian Point Generating Station
IV-14	Indian Point Unit 3 Cooling Water System

LIST OF FIGURES
(Continued)

Figure No.	Title
IV-15	Cross Section of Unit 3 Cooling Water System at Indian Point Generating Station
IV-16	Predicted Condenser Cooling Water Flow Rate Schedules to Achieve Efficient Operation
IV-17	Indian Point Discharge Canal
IV-18	Diagrammatic Sketch of Indian Point Discharge Structure
IV-19	Schematic of Bowling Point
IV-20	Plan and Elevations of Cooling Water System of Bowline Point Generating Station Units 1 and 2
IV-21	Sections and Profiles of Bowline Point Generating Station Cooling Water System
V-1	Hudson River Basin
V-2	Seasonal Variation in Monthly Mean Temperature at Selected Stations Within the Hudson River Drainage
V-3	Seasonal Variation in Monthly Mean Precipitation at Selected Stations Within the Hudson River Drainage
V-4	Mean Annual Air Temperature for the Hudson Valley Region (Division 05) for 1931-1990
V-5	Mean Annual Precipitation for the Hudson Valley Region (Division 05) for 1931-1990
V-6	The Lower Hudson River Estuary
V-7	Annual Mean Hudson River Flow at Green Island, 1945-1998

LIST OF FIGURES

(Continued)

Figure No.	Title
V-8	Hudson River Tidal Flow and Current Velocity
V-9	Mean, Minimum, and Maximum Daily Hudson River Water Temperature at Poughkeepsie Water Works, 1951-1992
V-10	Annual Mean Hudson River Water Temperature Measured at Poughkeepsie Water Works, 1981-1997
V-11	Hudson River Temperature Readings in August and September 1929
V-12	1988 Longitudinal Variation in Temperature
V-13	1991 Longitudinal Variation in Temperature
V-14	Relationship Between Flow at Green Island and Location at the Salt Front
V-15	Seasonal Variations in Salinity Based on the 1991 Longitudinal River Ichthyoplankton and Fall Juvenile Surveys
V-16	Seasonal Variations in Salinity Based on the 1988 Longitudinal River Ichthyoplankton and Fall Juvenile Surveys
V-17	Ammonia, Nitrate, Nitrite, and Total Nitrogen (unfiltered) Concentrations in Hudson River Water During August 1974
V-18	Nitrogen Concentration in the Hudson River, Yonkers to Troy, Average Values for Each Station, 1975-1992
V-19	Average Nitrogen Concentrations in the Hudson River at Glenmont and Poughkeepsie-Chelesea, 1975-1992
V-20	Total Phosphorous Concentration in Hudson River Water During August 1974

LIST OF FIGURES
(Continued)

Figure No.	Title
V-21	Phosphorous Concentrations in the Hudson River, Yonkers to Troy, Average Values for Each Station, 1975-1992
V-22	Average Ortho-Phosphate Concentrations in the Hudson River at Glenmont and Poughkeepsie-Chelesea, 1975-1992
V-23	Metals Concentrations in the Hudson River at Poughkeepsie, 1983-1992
V-24	Hudson River Estuary Dissolved Oxygen Profile, 1967
V-25	Average Weekly Dissolved Oxygen vs Time
V-26	Average Weekly Dissolved Oxygen vs Time
V-27	1988 Longitudinal Variation in Dissolved Oxygen
V-28	1991 Longitudinal Variation in Dissolved Oxygen
V-29	The Lower Hudson River Estuary
V-30	Cross Sections of the Hudson River Showing Locations and Typical Proportional Relationships of Shoal, Bottom, and Channel Strata
V-31	Natural Distribution of Striped Bass of North America
V-32	Temporal Distribution Indices for Striped Bass Eggs, Yolk Sac and Post Yolk Sac Larvae Collected During Long River Surveys and Young-of-Year Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-33	Spatial Distribution Indices for Striped Bass, Eggs, Yolk Sac and Post Yolk Sac Larvae Collected During Long River Surveys and Young-of-Year Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997

LIST OF FIGURES
(Continued)

Figure No.	Title
V-34	Striped Bass Annual Abundance Indices for Yolk-Sac Larvae (YSL) and Post Yolk-Sac Larvae (PYSL), 1974-1997
V-35	Striped Bass: Annual Abundance Indices for Young-of-the-Year (YOY) generated from the NYSDEC Juvenile Striped Bass Survey (JSB), 1976-1997
V-36	Striped Bass: Normalized Annual Abundance Indices for Young-of-the-Year (YOY) Generated from the NYSDEC Juvenile Striped Bass Survey (JSB) and Age 1+, 1984-1995. The Indices were Normalized by Dividing Each Annual Index by the Maximum Value for the Index
V-37	Striped Bass Normalized Annual Abundance Indices for Ages 1+ and 2+ 1984-1995. The Indices were Normalized by Dividing Each Annual Index by the Maximum Value for the Index
V-38	Striped Bass Annual Abundance Indices for Eggs, 1974-1997
V-39	Striped Bass Annual Abundance Indices for Eggs and Post Yolk-Sac Larvae (PYSL), 1992-1997
V-40	Striped Bass: Normalized Annual Abundance Indices for Post Yolk-Sac Larvae (PYSL) and the by-catch of Striped Bass in the Commercial Gill Net Fishery for American Shad (CFM), 1992-1997
V-41	Striped Bass: Annual Abundance Indices for Young-of-Year (YOY) from Regions 6 through 12 in the Hudson River, 1974 through 1997

LIST OF FIGURES

(Continued)

Figure No.	Title
V-42	Striped Bass: Normalized Annual Abundance Indices for Young-of-the-Year (YOY) from the Primary Nursery Area (JSB) and from Outside of the Primary Nursing Area (Reg. 6-12) During the Period When Emigration of PYSL and YOY from the River was Low 1976-1990. The Indices were Normalized by Dividing Each Annual Index by the Maximum Value for that Index
V-43	Striped Bass: Normalized Annual Abundance Indices for Post Yolk-Sac Larvae (PYSL) and Age 1+ During the Period When Emigration of PYSL and YOY from the River was High, 1991- The Indices were Normalized by Dividing Each Annual Index by the Maximum Value for that Index
V-44	White Perch: Normalized Annual Abundance Indices for Yearling from Regions 1-5 and Regions 6-12, 1974-1997. The Indices were Normalized by Dividing Each Annual Index by the Maximum Value for that Index
V-45	Native Distribution of White Perch in North America
V-46	Temporal Distribution Indices for White Perch Eggs, Yolk Sac and Post Yolk Sac Larvae Collected During Long River Surveys and Young-of-Year Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-47	Spatial Distribution Indices for White Perch Eggs, Yolk Sac and Post Yolk Sac and Post Yolk Sac Larvae Collected During Long River Surveys and Young-of-Year Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-48	White Perch: Annual Abundance Indices for Post Yolk-Sac Larvae (PYSL), 1974-1997
V-49	White Perch Annual Indices of Abundance for Young-of-Year (YOY), 1974-1997

LIST OF FIGURES
(Continued)

Figure No.	Title
V-50	White Perch Annual Indices of Abundance for Yearlings, 1974-1997
V-51	White Perch Cumulative Conditional Entrainment Mortality (CEMR) from all the Power Plants on the Hudson River and Annual Abundance Indices for Young-of-Year (YOY), 1974 through 1997
V-52	White Perch Annual Indices of Abundance for Young-of-the-Year (YOY) from Regions 1-5 and Regions 6-12, 1974-1997
V-53	Annual Abundance Indices for Post Yolk-Sac Larvae (PYSL) White Perch and Striped Bass, 1974-1997
V-54	White Perch Annual Indices of Abundance for Yearlings from Regions 1-5 and Regions 6-12, 1974-1997
V-55	Distribution of Atlantic Tomcod in North America
V-56	Temporal Distribution Indices for Atlantic Tomcod Collected During Long River Surveys of the Hudson River Estuary, 1991-1997
V-57	Spatial Distribution Indices for Atlantic Tomcod Collected During Long River Surveys of the Hudson River Estuary, 1991-1997
V-58	Atlantic Tomcod: Normalized Annual Abundance Indices for Combined Post Yolk-Sac and Juveniles from Long River Survey (LRS) and for Spawning Adults Producing the LRS Index in a Given Year (Spawners), 1974-1997
V-59	Atlantic Tomcod: Normalized Annual Abundance Indices for Age 1 Tomcod and Cumulative Conditional Entrainment Mortality (CEMR), 1988-1997

LIST OF FIGURES
(Continued)

Figure No.	Title
V-60	Atlantic Tomcod: Normalized Annual Abundance Indices for Age 1 Tomcod and Young-of-Year (YOY) Bluefish, 1987-1997, The Indices were Normalized by Dividing Each Annual Index by the Maximum Value for that Index
V-61	Atlantic Tomcod: Normalized Annual Abundance Indices for Age 1 Tomcod and the Striped Bass by-catch in the Commercial Gill Net for American Shad (CFM), 1987-1997, the Indices were Normalized by Dividing each Annual Index by the Maximum Value for that Index
V-62	Atlantic Tomcod: Normalized Annual Abundance Indices for Age 1 and Yearling Striped Bass, 1987-1996, the Indices were Normalized by Dividing each Annual Index by the Maximum Value for that Index
V-63	Atlantic Tomcod: Normalized Annual Abundance Indices for Age 1 and 2, 1987-1997, the Indices were Normalized by Dividing each Annual Index by the Maximum Value for that Index
V-64	Atlantic Tomcod: Normalized Annual Abundance Indices for Age 1 Tomcod and Average Weekly Average Fecal Coliform Counts for June, July, and August from the Normalized by Dividing each Annual Index by the Maximum Value for that Index
V-65	Atlantic Tomcod Normalized Annual Abundance Indices for Eggs and Age 1, 1988-1997, the Indices were Normalized by Dividing each Annual Index by the Maximum Value for that Index
V-66	Distribution of American Shad in North America

LIST OF FIGURES (Continued)

Figure No.	Title
V-67	Temporal Distribution Indices for American Shad, Yolk Sac and Post Yolk Sac Larvae Collected During Long River Surveys and Young-of-Year Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-68	Spatial Distribution Indices for American Shad Eggs, Yolk Sac and Post Yolk Sac and Post Yolk Sac Larvae Collected During Long River Surveys and Young-of-Year Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-69	American Shad BSS Juvenile Index
V-70	Distribution of Blueback Herring North America
V-71	Temporal Distribution of Blueback Herring by Life Stage
V-72	Spatial Distribution Indices for Alosa spp., Egg, Yolk Sac and Post Yolk Sac and Post Yolk Sac Larvae Collected During Long River Surveys and Young-of-Year Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-73	Distribution of Alewife in North America
V-74	Temporal Distribution Indices for Alosa spp., Yolk Sac and Post Yolk Sac Larvae Collected During Long River Surveys and Young-of-Year Alewife Collected During Fall Shoals Surveys of the Hudson River Estuary, 1991-1997
V-75	Temporal Distribution Indices for Alosa spp., Yolk Sac and Post Yolk Sac Larvae Collected During Long River Surveys and Young-of-Year Alewife Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-76	Alewife FSS Channel Juvenile Index
V-77	Distribution of Bay Anchovy in North America

LIST OF FIGURES

(Continued)

Figure No.	Title
V-78	Temporal Distribution Indices for Bay Anchovy., Yolk Sac and Post Yolk Sac Larvae Collected During Long River Surveys and Young-of-Year Alewife Collected During Fall Shoals Surveys of the Hudson River Estuary, 1991-1997
V-79	Hudson River Bay Anchovy Juvenile FSS Index
V-80	Native Distribution of Atlantic Sturgeon in North America
V-81	Native Distribution of Shortnose Sturgeon in North America
V-82	Longitudinal Distribution of Atlantic Sturgeon Life Stages In the Hudson River Estuary
V-83	Longitudinal Distribution of Shortnose Sturgeon Life Stages In the Hudson River Estuary
V-84	Relative Density of all Sturgeon Larvae Collected in the Utilities' Monitoring Program by River Mile and Week, 1974-1977
V-85	Mean Density of Atlantic and Shortnose Sturgeon YORL Collected in the Utilities Monitoring Program Using Beam Trawls, 1985-1997
V-86	Annual Catch of Atlantic and Shortnose Sturgeon Yearling in Beam Trawls in the Utilities' Monitoring Program
V-87	Temporal Distribution Indices for Bluefish During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-88	Spatial Distribution Indices for Bluefish During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-89	Distribution of Hogchoker in North America

LIST OF FIGURES

(Continued)

Figure No.	Title
V-90	Temporal Distribution Indices for Hogchoker Eggs, Yolk sac and Post yolk sac Larvae Collected During Long River Surveys and Young-of-year Collected During Fall Shoals Surveys of the Hudson River Estuary, 1991-1997
V-91	Spatial Distribution Indices for Hogchoker Eggs, Yolk sac and Post yolk sac Larvae Collected During Long River Surveys and Young-of-year Collected During Fall Shoals Surveys of the Hudson River Estuary, 1991-1997
V-92	Indices of Abundance for Young-of-the-Year and Yearling and Older Hogchoker Generated from the Bottom Trawl Used During the Fall Shoals Survey, 1974-1997
V-93	Temporal Distribution Indices for Weakfish Collected During Fall Shoals Surveys of the Hudson River Estuary, 1991-1997
V-94	Spatial Distribution Indices for Weakfish Collected During Fall Shoals Surveys of the Hudson River Estuary, 1991-1997
V-95	Normalized Indices of Abundance for Young-of-the-Year Weakfish and Striped bass post Yolk-sac Larvae, 1979-1997
V-96	Distribution of Rainbow Smelt in North America
V-97	Temporal Distribution Indices for Rainbow Smelt Eggs, Yolk sac and Post yolk sac Larvae Collected During Long River Surveys and Young-of-year Collected During Fall Shoals Surveys of the Hudson River Estuary, 1991-1997
V-98	Spatial Distribution Indices for Rainbow Smelt Eggs, Yolk sac and Post yolk sac Larvae Collected During Long River Surveys and Young-of-year Collected During Fall Shoals Surveys of the Hudson River Estuary, 1991-1997
V-99	Rainbow Smelt Juvenile Fall Shoals Survey Index

LIST OF FIGURES
(Continued)

Figure No.	Title
V-100	Monthly Estimated Impingement Rates for Rainbow Smelt in the Hudson River
V-101	Average Monthly Impingement Rates Over All Sampling Years for Rainbow Smelt in the Hudson River
V-102	Native Distribution of Gizzard Shad in North America
V-103	Average Annual Impingement of Gizzard Shad at Danskammer, Roseton, and Lovett Generating Stations
V-104	Average Monthly Impingement of Gizzard Shad at Danskammer, Roseton, and Lovett Generating Stations
V-105	Distribution of Spottail Shiner in North America
V-106	Temporal Distribution Indices for Spottail Shiner Post yolk sac Larvae Collected During Long River Surveys and Young-of-year and Older Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-107	Spatial Distribution Indices for Spottail Shiner Post yolk sac Larvae Collected During Long River Surveys and Young-of-year and Older Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-108	Spottail Shiner Juvenile Beach Seine Survey Index
V-109	Native Distribution of White Catfish in North America
V-110	Spatial Distribution Indices for White Catfish Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997
V-111	Temporal Distribution Indices for White Catfish Collected During Beach Seine Surveys of the Hudson River Estuary, 1991-1997

LIST OF FIGURES (Continued)

Figure No.	Title
V-112	White Catfish FSS Bottom Juvenile Index
V-113	Middle Atlantic Fisheries Historical Catch Statistics, Blue Crabs 1970-1989
V-114	Seasonal Pattern In Species Richness and Overall Abundance of Post Yolk-sac Larval Fish in the Hudson River Estuary, 1974- 1997
V-115	Spatial Pattern in Species Richness, Diversity and Overall Abundance of Post Yolk-sac Larval Fish in the Hudson River Estuary During May and June, 1974-1997
V-116	Spatial pattern in the Abundance of Post Yolk-sac Larval fish of the Dominant Species in the Hudson River Estuary During May and June, 1974-1997
V-117	Comparison of the Mean Abundance of post Yolk-sac Larval fish of Selected Species Between Brackish and Freshwater Areas of the Hudson River Estuary During May and June, 1974-1997
V-118	Long-term Trends in Species Richness and Overall Abundance of Post Yolk-sac Larval Fish in Brackish Areas of the Hudson River Estuary During May and June, 1974-1997
V-119	Long-term Trends in Species Richness and Overall Abundance of Post Yolk-sac Larval Fish in Freshwater Areas of the Hudson River Estuary During May and June, 1974-1997
V-120	Long-term Trends in the Abundance of Post Yolk-sac Larval Fish of the Dominant Species in the Hudson River Estuary During May and June, 1974-1997
V-121	Comparison of the Mean Abundance of Post Yolk-sac Larval Fish of Selected Species in May and June Between Two Periods, 1974-1980 and 1991-1997, in the Hudson River Estuary

LIST OF FIGURES
(Continued)

Figure No.	Title
V-122	Seasonal Pattern in Species Richness, Diversity and Overall Abundance of Young-of-the-Year Fish in Littoral Areas of the Hudson River Estuary, 1974-1997
V-123	Spatial Patterns in Species Richness, Diversity and Overall Abundance of Young-of-the-Year Fish in Littoral Areas of the Hudson River Estuary During July and August, 1974-1980
V-124	Spatial pattern in the Abundance of young-of-the-year Fish of the Dominant Species in the Hudson River Estuary During July and August, 1974-1997
V-125	Comparison of the Mean Abundance of Young-of-the-Year Fish of Selected Species Between Brackish and Freshwater Littoral Areas of the Hudson River Estuary During July and August, 1974-1997
V-126	Long-term Trends in Species Richness and Overall Abundance of Young-of-the-Year Fish in Brackish Littoral Areas of the Hudson River Estuary During July and August, 1974-1997
V-127	Long-term Trends in Species Richness and Overall Abundance of Young-of-the-Year Fish in Freshwater Littoral Areas of the Hudson River Estuary During July and August, 1974-1997
V-128	Long-term Trends in the Abundance of Young-of-the-Year Fish of the Dominant Species in Littoral Areas of the Hudson River Estuary During May and June, 1974-1997
V-129	Comparison of the Mean Abundance of Young-of-the-Year Fish of Selected Species in July and August Between Two Periods, 1974-1980 and 1991-1997, in Littoral Areas of the Hudson River Estuary

LIST OF FIGURES

(Continued)

Figure No.	Title
V-130	Seasonal Pattern in Species Richness, Diversity and Overall Abundance of Yearling and Older Fish in Littoral Areas of the Hudson River Estuary, 1974-1980
V-131	Spatial pattern in the Abundance of Yearling and Older Fish in Littoral Areas of the Hudson River Estuary During July and August, 1974-1997
V-132	Spatial pattern in the Abundance of Yearling and Older Fish of the Dominant Species in the Hudson River Estuary During July and August, 1974-1997
V-133	Comparison of the Mean Abundance of Yearling and Older Fish of Selected Species Between Brackish and Freshwater Littoral Areas of the Hudson River Estuary During July and August, 1974-1997
V-134	Long-term Trends in Species Richness and Overall Abundance of Yearling and Older Fish in Brackish Littoral Areas of the Hudson River Estuary During July and August, 1974-1997
V-135	Long-term Trends in Species Richness and Overall Abundance of Yearling and Older Fish in Freshwater Littoral Areas of the Hudson River Estuary During July and August, 1974-1997
V-136	Long-term Trends in the Abundance of Yearling and Older Fish of the Dominant Species in Littoral Areas of the Hudson River Estuary During May and June, 1974-1997
V-137	Comparison of the Mean Abundance of Yearling and Older Fish of Selected Species in July and August Between Two Periods, 1974-1980 and 1991-1997, in Littoral Areas of the Hudson River Estuary

LIST OF FIGURES
(Continued)

Figure No.	Title
VI-1	Recruitment, Harvest, and Spawning Stock Size of the Hudson River Striped Bass Population Under Two Levels of Power Plant Entrainment Mortality and Fishing Mortality Ranging from $F=0$ to $F=1$
VI-2	Consumed Biomass of Young-of-the-Year Bay Anchovy Under Three Levels of Entrainment Mortality
VI-3	Interrelationship of Various Thermal Response Parameters and Acclimation Temperature
VI-4	Range of Short-term Thermal Tolerances of Macroinvertebrates and Fish Larvae/Early Juveniles Compared to Delta-T at and Shortly Following Discharge
VIII-1	Relationship Between River Temperature and Volume Required to Achieve Efficient Operation of Indian Point
VIII-2	Predicted Condenser Cooling Water Flow Rate Schedules to Achieve Efficient Operation of Indian Point Unit 2
VIII-3	Predicted Condenser Cooling Water Flow Rate Schedules to Achieve Efficient Operation of Indian Point Unit 3
VIII-4	Air and Water Flow in a Typical Mechanical Draft Cooling Tower
VIII-5	Schematic Diagram for wet-dry tower typical of the Designs considered for the Hudson River Stations
VIII-6	General Arrangement of Dual Flow and Through Flow Traveling Water Intake Screens Within Intake Bays

LIST OF FIGURES
(Continued)

Figure No.	Title
VIII-7	Preliminary Concept Design for a Bulkhead Mounted Wedgewire Screen Intake
VIII-8	Preliminary Concept Design for an Offshore Wedgewire Screen Intake Structure

LIST OF TABLES

Table No.	Title
IV-1	Weekly Efficient Flows and Fish Protection Points (FPPS) For Roseton, Indian Point, and Bowline Point Generating Station
IV-2	Maximum Scheduled Cooling Water Flow Rates Stipulated in the 1981 and 1987 SPDES Permits, and the Equivalent Fish Protection
IV-3	Outage Requirements of the 1981 and 1987 SPDES Permits for the 10-Year Period Starting in May 1981, and the Equivalent Fish Protection Points Based on Five Taxa of Fish (Striped Bass, White Perch, Atlantic Tomcod, Bay Anchovy, and River Herring) for Renewed Permits
IV-4	Summary of Thermal Limitations on Cooling Water Discharges in 1981 and 1987 SPDES Permits that are to be Continued in the Renewed Permits
IV-5	Roseton Generating Station Effluent Limitations (SPDES Permit Requirements)
IV-6	Component Characteristics of Cooling Water System – Roseton Generating Station
IV-7	Roseton Cooling Water Pump Flow Characteristics
IV-8	Non-Cooling Water Waste Discharges at Roseton
IV-9	Component Characteristics of Cooling Water System
IV-10	Discharge and Waste Stream Flow – Indian Point Generating Station
IV-11	Component Characteristics of Cooling Water System
IV-12	Bowline Point Cooling Water Pump Flow Characteristics
IV-13	Non-Cooling Water Waste Discharges at Bowline Point

LIST OF TABLES
(Continued)

Table No.	Title
IV-14	Summary of CHG&E Generating Capacity
IV-15	Summary of Con Edison's Generating Capacity
IV-16	Summary of NYPA's Summer Capacity
IV-17	Summary of Southern Energy and New York's Generating Capacity
V-1	Drainage Areas of Hudson-Mohawk River System
V-2	Mean Annual Temperature and Precipitation at Selected Climate Monitoring Stations in the Hudson River Drainage Area
V-3	Population Sizes (1000s) and Percent Increase (%) for Lower Hudson Basins
V-4	Permitted Maximum Discharges of 50 mgd or Greater to Lower Hudson River
V-5	Habitat at River Reach Volumes and Number of Tributaries Entering Each Reach
V-6	Major Freshwater Tributaries to Hudson River Below Troy, New York
V-7	Mean and Range of Monthly Average Freshwater Flow (cfs) at Green Island, New York, for Period 1947-1997
V-8	Time Lag (hrs) Between Battery and Troy
V-9	Estuarine Salinity Zones
V-10	Estimated Pesticide Loading Into the Hudson-Raritan Basin
V-11	Concentrations of Chemicals in Hudson River Surface Water

LIST OF TABLES
(Continued)

Table No.	Title
V-12	Average Total Metals Concentrations by Station in Hudson River, 1980-1981
V-13	Concentrations of Chemicals in Hudson River Sediment
V-14	The Distribution of Submergent Aquatic Plants in the Hudson River
V-15	Estimate of Relative and Absolute Abundance of Different Life Stages of Striped Bass (Standard Errors, Where Available, are Given after"/")
V-16	Maximum Weekly Average Dissolved Oxygen In The Bottom Stratum During July And August For Seven Sampling Stations Located East Of Hell Gate In The East River And 4 Sampling Stations Located In Western Long Island Sound
V-17	Maximum Weekly Average Dissolved Oxygen In The Bottom Stratum During July And August For Seven Sampling Stations Located East Of Hell Gate In The East River And 4 Sampling Stations Located In Western Long Island Sound
V-18	Entrainment (E), Impingement (I), and Cumulative Total (T) Effects of Withdrawal Facilities on Striped Bass, Tabled Values Represent Conditional Mortality Rates Expressed in %
V-19	Estimates of Relative and Absolute Abundance of Different Life Stages of White Perch (Standard Errors, where Available are given after "/")
V-20	Entrainment (E), Impingement (I), and Cumulative Total (T) Effects of Withdrawal Facilities on White Perch, Tabled Values Represent Conditional Mortality Rates Expressed in %

LIST OF TABLES
(Continued)

Table No.	Title
V-21	Estimate of Relative and Absolute Abundance of Different Life Stages of Atlantic Tomcod (Standard Errors, Where Available, are Given after"/")
V-22	Entrainment (E), Impingement (I), and Cumulative Total (T) Effects of Withdrawal Facilities on Atlantic Tomcod, Tabled Values Represent Conditional Mortality Rates Expressed in %
V-23	Incidence of Abnormal Livers in Atlantic Tomcod Adults During the 1995-1996 Spawning Season
V-24	The Average Daily Water Temperature During the Months of July and August at the Intake to Poughkeepsie Waterworks (Poughkeepsie, NY): 1975 through 1997
V-25	Estimates of Relative Abundance of American Shad at Different Ages
V-26	Entrainment (E), Impingement (I), and Cumulative Total (T) Effects of Withdrawal Facilities on American Shad, Tabled Values Represent Conditional Mortality Rates Expressed in %
V-27	Estimates of Relative and Absolute Abundance of Young-of-Year (YOY) Blueback Herring
V-28	Entrainment (E), Impingement (I), and Cumulative Total (T) Effects of Withdrawal Facilities on Blueback Herring, Tabled Values Represent Conditional Mortality Rates Expressed in %
V-29	Estimates of Relative Abundance of Young-of-Year (YOY) Alewives Ages
V-30	Entrainment (E), Impingement (I), and Cumulative Total (T) Effects of Withdrawal Facilities on Alewife, Tabled Values Represent Conditional Mortality Rates Expressed in %

LIST OF TABLES (Continued)

Table No.	Title
V-31	Estimates of Relative and Absolute Abundance of Different Life Stages of Bay Anchovy (Standard Errors, where Available are given after “/”)
V-32	Entrainment (E), Impingement (I), and Cumulative Total (T) Effects of Withdrawal Facilities on Bay Anchovy, Tabled Values Represent Conditional Mortality Rates Expressed in %
V-33	Total Catch of Atlantic and Shortnose Sturgeon in the Hudson River Monitoring Programs
V-34	Actual Number of Shortnose Sturgeon, Atlantic Sturgeon, and Acipenseridae Collected During Entrainment Sampling at Each Power Plant, 1972-1998
V-35	Actual Number of Atlantic Sturgeon Collected During Impingement Sampling at Each Power Plant, 1972-1998
V-36	Actual Number of Shortnose Sturgeon Collected During Impingement Sampling at Each Power Plant, 1972-1998
V-37	Estimates of Relative and Absolute Abundance of Young-of-the-Year Bluefish
V-38	Estimates of Relative and Absolute Abundance of Hogchoker
V-39	Estimates of Relative and Absolute Abundance for Young-of-Year Weakfish
V-40	Estimates of Relative Abundance for Young-of-the-Year Rainbow Smelt
V-41	Estimates of Relative and Absolute Abundance of Spottail Shiner
V-42	Entrainment, Impingement, and Cumulative total Effects of Withdrawal Facilities on Spottail Shiner

LIST OF TABLES
(Continued)

Table No.	Title
V-43	Estimates of Relative Abundance of White Catfish
V-44	Estimated Blue Crab Impingement Rates at Roseton, Indian Point, and Bowline Point Generating Stations
V-45	Overall Species Composition of Post Yolk-sac Larvae Collected by Ichthyoplankton Sampling in the Hudson River Estuary During may and June, 1974-1997
V-46	Overall Species Composition of Young-of-the-year Fish Collected By Beach Seine Sampling In the Hudson River Estuary During July and August, 1974-1997
V-47	Overall Species Composition of Yearling and Older Fish Collected By Beach Seine Sampling In the Hudson River Estuary During July and August, 1974-1997
VI-1	Entrainment Conditional Mortality rates for Seven Taxa Under Four Scenarios for Meeting the Guaranteed level of Fish Protection Points. Outages Are Limited to the Minimum Necessary to meet the Guarantee. Conditional Mortality Rates are Based on Estimated Through-plant Mortality Rates
VI-2	Impingement Conditional Mortality Rates for Eight Taxa. Average of Historical Estimates are Used to Estimate Expected Values Under the Proposed Action
VI-3	Annual combined Conditional Entrainment and Impingement Mortality Rates Under the Proposed Action
VI-4	Model Predictions for Monthly Average Summer Temperature Behavior at Roseton
VI-5	Model Prediction s for Monthly Average Summer Temperature Behavior at Bowline Point

LIST OF TABLES
(Continued)

Table No.	Title
VI-6	Model Predictions for Monthly Average Summer Temperature Behavior at Indian Point
VI-7	Predicted Excess Temperatures that Would be Avoided by Migrating Fish
VII-1	Percent Reduction in the Entrainment Conditional Mortality Rate (CMR) for Seven Taxa of Fish Under Four Hypothetical Operating Scenarios at the Bowline, Indian Point, and Roseton Power Plants Assuming Maximum Flows Stipulated in the 1981 and 1987 SPDES Permits Are Followed
VIII-1	Entrainment Conditional Mortality Rate for all Plants based on, Efficient Flows, and estimated through-plant Mortality Rates
VIII-2	Absolute Reduction in the Entrainment Conditional Mortality Rate for all Plants from the Maximum Based, Efficient Flows, and Estimated Through-plant Mortality Rates
VIII-3	Comparison of Annual Entrainment Conditional Mortality rates for the Proposed Action and the Alternative Actions (Scenarios A, B, C and D)
VIII-4	Potential Annual Increase in Statewide Air Emissions Expected as a Result of Prescribed Outages for Alternative Scenarios A, B, C and D
VIII-5	Potential Annual Increase in Statewide Electrical Production Costs of Prescribed Outages for Alternative Scenarios A, B, C and D
VIII-6	Potential Increase in Entrainment Conditional Mortality Due to Use of Efficient Cooling Water Flow Rates at Indian Point Units 2 and 3 Combined

LIST OF TABLES
(Continued)

Table No.	Title
VIII-7	Predicted Monthly Increase in Electric Power Output and Total Cost Reductions Due to Use of Efficient Cooling Water Flow Rates at Indian Point Units 2 and 3
VIII-8	Costs (Million of 1999 Dollars) of Wet/Dry Cooling Towers Considered for the Hudson River Plants
VIII-9	Estimated Entrainment Conditional Mortality Rates with Wet/Dry Cooling Towers Installed at the Roseton, Indian Point, and Bowline Point Generating Stations
VIII-10	Additional Air Emissions Associated with Electric Power Generation to Replace Generation Lost to Inefficiencies at the Hudson River stations Caused By Cooling Tower Operation
VIII-11	Survival of Fish 8 Hours After collection from Fletcher-Modified Conventional Travelling Screens at the Indian Point Unit 2 Station and Fletcher-Modified Dual Flow Screens at the Arthur Kill Station
VIII-12	Summary of Alternative for Renewal SPDES Permits for Roseton Units 1 and 2
VIII-13	Summary of Alternative for Renewal SPDES Permits for Indian Point Units 2 and 3
VIII-14	Summary of Alternative for Renewal SPDES Permits for Bowline Point Units 1 and 2

II. Acronyms

II. ACRONYMS

APAC	all plants at capacity
ASMFC	Atlantic States Marine Fisheries Commission
AUTOSAM	automated abundance sampler
BCF	bioconcentration factor
BOD	biochemical oxygen demand
BSS	Beach Seine Survey
BTIPR	Boyce Thompson Institute for Plant Research
CEMR	conditional entrainment mortality rate
CES	Coastal Environmental Services, Inc.
CFM	Commercial Fishery Monitoring
cfs	cubic feet per second
CHG&E	Central Hudson Gas & Electric Corp.
CIMR	conditional impingement mortality rate
cm	centimeter
CMR	Conditional Mortality Rate
COE	Corps of Engineers
CORMIX	Cornell University Mixing Zone Model
CPUE	catch per unit of effort
C.V.	coefficient of variation
CWA	Clean Water Act
CWS	Cooling Water System

dBa	adjusted decibel
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane (insecticide)
DEC	Department of Environmental Conservation (New York State)
DEIS	draft environmental impact statement
DFW	Division of Fish and Wildlife
DGPS	Differential Global Positioning System
DHC	District Heating and Cooling
DMR	Division of Marine Resources
DNR	Department of Natural Resources
DO	dissolved oxygen
DOC	Dissolved Organic Carbon
DOS	Department of State (New York State)
DOT	Department of Transportation (New York State)
dw	Dry weight
EA	EA Engineering Science and Technology, Inc., formerly known as Ecological Analysts, Inc.
EAF	environmental assessment form
EAS	environmental assessment study
ECL	Envionmental Conservation Law
EEA	Energy and Environmental Analysts, Inc.
EEI	Edison Electric Institute

EIS	environmental impact statement
EMF	electromagnetic field
EPA	U.S. Environmental Protection Agency
EPRI	Electric Power Research Institute
EOP	emergency operating procedure
ESCO	Energy Service Companies
ETM	Empirical Transport Model (entrainment)
FDA	Food and Drug Administration
FEIS	final environmental impact statement
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FFTM	far-field thermal model
FMP	Fishery Management Plan
ftm	feet per minute
FPP	Fish Protection Points
fps	feet per second
FSS	Fall Shoals Survey
gpd	gallons per day
gpm	gallons per minute
HREMP	Hudson River Estuary Management Program
HRSC	Hudson River Sloop Clearwater
HRVGC	Hudson River Valley Greenway Council

HTF	Heritage Task Force
HW	head width
I.D.	inside diameter
in. Hg	atmospheric pressure in inches of mercury
IP2	Indian Point Unit 2
IP 3	Indian Point Unit 3
ISO	Independent System Operator
JAS	Juvenile American shad
JSB	Juvenile Striped Bass
LBMP	Locational Based Marginal Pricing
LMS	Lawler, Matusky & Skelly Engineers LLP
ln	natural logarithm
LRIS	Longitudinal River Ichthyoplankton Survey
LRS	Longitudinal River Survey
LSE	Load serving entities
LWRP	Local Waterfront Revitalization Program
m²/S	square meters per second
mcm	million cubic meters
mgd	million gallons per day
mg/l	milligrams per liter
MAFMC	Mid-Atlantic Fishery Management Council
MIT	Mass. Institute of Technology
mlw	mean low water

MMES	Martin Marietta Environmental Systems
MP	mile point
MRFSS	Marine Recreational Fisheries Statistics Survey
MRI	magnetic resonance imagery
msl	mean sea level
mw	megawatt
MWe	megawatt, electric
MWh	megawatt hours
MWt	megawatt, thermal
m/yr	meters per year
NAERC	North American Electric Rehabilitation Council
NAI	Normandeau Associates, Inc.
NAS	National Academy of Sciences
NEPA	National Environmental Policy Act
NERC	Nuclear Energy Regulatory Commission
NFTM	near-field thermal model
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPCC	Northeast Power Coordinating Council
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
NS&T	National Status and Trends Program

NTAC	National Technical Advisory Committee
NWI	National Wetlands Inventory
NYCA	New York Control Area
NYCRR	New York Code of Rules and Regulations
NYDOH	New York Department of Health
NYPA	New York Power Authority
NYPP	New York Power Pool
NYSDEC	New York State Department of Environmental Conservation
NYSERDA	New York State Energy Research and Development Authority
NYSR	New York State Register
NYU	New York University
O&R	Orange and Rockland Utilities, Inc.
O.D.	outside diameter
OPRHP	Office of Parks, Recreation and Historic Preservation
PAH	polynuclear aromatic hydrocarbon
PCB	polychlorinated biphenyl
POC	Particulate Organic Carbon
POTW	publicly owned treatment works
ppt	parts per thousand
PSE&G	Public Service Electric and Gas
psi	pounds per square inch

PVC	polyvinyl chloride
PYSL	post-yolk-sac larvae
QLM	Quirk, Lawler & Matusky
QA/QC	Quality Assurance/Quality Control
R&D	research and development
R-EMAP	Regional Environmental Monitoring and Assessment Program
REP	Restoration, Enhancement and Protection
RESCO	Westchester Resource Recovery Plant
RIBS	Rotating Intensive Basin Studies
RM	river mile
REP	restoration, enhancement, and protection
SANS	Stream Augmentation Needs Study
SAPA	State Administrative Procedure Act
SAV	submerged aquatic vegetation
SAV	Submerged Aquatic Vegetation
SBMR	Striped bass mark recapture program
SEP	State Energy Plan
SENY	Southern Energy New York
SEQRA	State Environmental Quality Review Act
SL	standard length
SPDES	State Pollutant Discharge Elimination System

STORET	Water Data Storage & Retrieval Database
T&D	Transmission and Distribution
TDS	total dissolved solids
TI	Texas Instruments, Inc.
TL	total length
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWAG	Utility Water Act Group
IYBP	years before present
μ	micron, micro
YBP	Years Before Present
YOY	young-of-year
YSL	yolk-sac larvae
ZIM	Zone of Initial Mixing

Flow Conversions

1 gpm	=1440 gpd
1 gpm	=0.002228 cfs
1440 gpd	= 3.20832 cfs

III. Executive Summary

III. EXECUTIVE SUMMARY

On April 29, 1992, Central Hudson Gas and Electric Corp., Consolidated Edison Company of New York, Inc., the New York Power Authority, and Orange and Rockland Utilities submitted applications to renew the 1987 State Pollution Discharge Elimination System (SPDES) permits for the Bowline Point Units 1 & 2, Indian Point Units 2 & 3, and Roseton Units 1 & 2 power plants to the New York State Department of Environmental Conservation (the Department) in accordance with the requirements of 6 NYCRR 755.2 (Section IV.F). After reviewing the applications, the Department directed the utilities to jointly prepare an environmental impact statement (EIS) pursuant to the State Environmental Quality Review Act (SEQRA). This draft EIS (DEIS) incorporates revisions requested by the Department for completeness, defines a Proposed Action, and presents an assessment of environmental, economic and other factors related to the Proposed Action.

The Proposed Action is renewal of the SPDES permits for the Bowline Point Units 1 & 2 [now owned by Southern Energy New York], Indian Point Units 2 and 3, and Roseton Units 1 & 2 power plants with provisions for protection of Hudson River fishes described in Section IV.A.2. These provisions include limiting the use of cooling water flow (particularly during times when fish eggs and larvae are relatively abundant near the plant intakes), using cooling water intake technologies that prevent fish from entering the plant intakes or that return fish to the Hudson River from the intakes, and operating with thermal and chemical discharge limits that ensure protection of a balanced indigenous population of fish in the Hudson River. The provisions will provide levels of fish protection, during the 10-year period from 2001 through 2010, at least equal to those ensured, on average across years, by the 1981 and 1987 SPDES permits for representative taxa of fish (striped bass, white perch, Atlantic tomcod, bay anchovy, and river herring).

The information in this DEIS, based on 24 years of biological data from the Hudson River, demonstrates that the Proposed Action would not adversely affect species diversity or species abundance within the fish communities in the Hudson River. The Proposed Action complies with the State Environmental Quality Review Act, which requires a suitable balance of economic, social, and environmental interests. Under the Proposed Action, balanced indigenous populations can be maintained, without compromising the ability of the plant operators to provide reliable and lower-cost power.