ORIGINAL

040582-EI

STEEL HECTOR & DAVIS INTERNATIONAL℠

Steel Hector & Davis LLP
200 South Biscayne Boulevard
Suite 4000
Miami, FL 33131-2398
305.577.7000
305.577.7001 Fax
www.steelhector.com

John T. Butler
305.577.2939
jbutler@steelhector.com

June 18, 2004

VIA OVERNIGHT DELIVERY

Blanca S. Bayó
Director, Commission Clerk and Administrative Services
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Dear Ms. Bayó:

Enclosed for filing are the original and seven (7) copies of Florida Power & Light Company's Petition for Approval of Environmental Cost Recovery for CWA §316(b) Phase II Project, with accompanying affidavit of Randall R. LaBauve. Also enclosed is a diskette containing the electronic version of the petition. The enclosed diskette is HD density, the operating system is Windows XP, and the word processing software in which the petition appears is Word 2000.

Exhibit 1 to Mr. LaBauve's affidavit (the CWA §316(b) Phase II Rule) is not attached at this time. This is because, while the Administrator for the United States Environmental Protection Agency ("EPA") has signed the final rule, it has not yet been published in the Federal Register and copies of it have not been made available otherwise. I will file eight (8) copies of Exhibit 1 with your office as soon as the final rule is published. In the meantime, please note that a pre-publication notice for the final rule is attached as Exhibit A to Progress Energy Florida's petition for approval of a similar project (Docket No. 040472); the notice also may be accessed on the EPA's website at http://www.epa.gov/waterscience/316b/ph2.htm.

Sincerely,

Damaris Rodriguez for John T. Butler

John T. Butler

MIA2001 290337v1

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Florida Power & Light Company for approval of CWA §316(b) Phase II Rule Project for cost recovery through the Environmental Cost Recovery Clause.	Docket No. _____ Filed: June 21, 2004

PETITION FOR APPROVAL OF ENVIRONMENTAL COST RECOVERY OF CWA §316(b) PHASE II PROJECT

Florida Power & Light Company ("FPL"), pursuant to Section 366.8255, Florida Statutes, and Order No. PSC-94-0044-FOF-EI, hereby petitions this Commission for approval of recovery through the Environmental Cost Recovery Clause ("ECRC") of costs associated with FPL's CWA §316(b) Phase II Rule Project (the "Project"). The justification for approval of the Project is addressed in the Affidavit of Randall R. LaBauve, which is attached as Exhibit A and made part of this Petition. In support of this Petition, FPL states as follows:

1. Order No. PSC-94-0044-FOF-EI provides that, upon petition, the Commission will allow the recovery of costs associated with a utility's environmental compliance activity through the ECRC if the costs were prudently incurred after April 13, 1993; the activity is legally required to comply with a governmentally imposed environmental regulation enacted after the utility's last test year upon which rates are based; and the costs are not recovered through any other cost recovery mechanism or base rates.

2. On May 28, 2004, the Administrator of the United States Environmental Protection Agency (the "EPA") signed a final rule implementing the requirements of section 316(b) of the Clean Water Act concerning the impingement and entrainment of fish and shellfish in cooling water intake structures of certain existing facilities, including power plants (the "Phase II Rule"). The Phase II Rule is a "governmentally imposed environmental regulation enacted

after the utility's last test year upon which rates are based," as contemplated by Order No. PSC-94-0044-FOF-EI.

3. The Phase II Rule requires that plants meeting certain threshold criteria comply with national performance standards for impingement and entrainment of fish and shellfish by implementing one of five "compliance alternatives." FPL will have to demonstrate to the Florida Department of Environmental Protection (the "FDEP"), acting under authority delegated by the EPA, that the compliance alternative it chooses for each such plant will meet those standards by preparing and submitting a "Comprehensive Demonstration Study." At the current time it appears that, due to their capacity factors and locations, the Cutler, Sanford Unit 3, Port Everglades, Ft. Lauderdale, Riviera, Cape Canaveral, Ft. Myers, and St. Lucie plants will have to meet both the impingement mortality and entrainment performance standards of the Phase II Rule. And for the Martin, Manatee and Sanford Units 4 and 5 plants, it appears that FPL will have to demonstrate that each plant has reduced water flow commensurate with a closed-cycle recirculating system.

4. In order to meet the 2007-2008 deadline for submitting Comprehensive Demonstration Studies, FPL must begin work now. FPL expects to begin incurring expenses for the Project in July 2004. O&M costs for the Project for July through December 2004 are estimated to be $500,000. Those costs are for outside contractors and consultants, which will be selected by competitive bidding. The costs relate to the development of Proposals for Information Collection, which is the first step in the Comprehensive Demonstration Studies for the Cutler, Sanford Unit 3 and St. Lucie Plants. FPL proposes to include the estimated Project costs for 2004 in the August 2004 estimated/actual true-up filing that it will make in Docket No. 040007-EI. FPL does not seek to change the ECRC factors currently in effect for 2004. As contemplated by Order No. PSC-94-0044-FOF-EI, FPL's 2004 Project costs are prudently

incurred after April 13, 1993, and FPL is not currently recovering the costs through any other cost recovery mechanism or base rates.

5. Due to the need for additional information collection and assessment in order to estimate expenses for 2005 and beyond, FPL can provide Project cost estimates only for 2004 at this time. FPL will provide cost estimates for 2005 in its September 3, 2004 ECRC projection filing. As information is collected and becomes available, FPL will provide cost estimates for years beyond 2005 in future ECRC filings. In all cases, FPL's cost estimates will exclude any costs that are included in base rates or that are recovered through another cost-recovery mechanism.

6. Further detail about the Phase II Rule and the Project is provided in the LaBauve Affidavit attached hereto,

WHEREFORE, Florida Power & Light Company respectfully requests the Commission to approve recovery of CWA §316(b) Phase II Rule Project costs incurred after the date of this petition through the Environmental Cost Recovery Clause.

Respectfully submitted,

R. Wade Litchfield, Esq.
Senior Attorney
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408-0420
Telephone: 561-691-7101

Steel Hector & Davis LLP
Attorneys for Florida Power & Light Company
200 South Biscayne Boulevard
Suite 4000
Miami, Florida 33131-2398
Telephone: 305-577-2939

By: Damaris Rodriguez for John T Butler
John T. Butler
Fla. Bar No. 283479

AFFIDAVIT

STATE OF FLORIDA
COUNTY OF PALM BEACH

BEFORE ME, the undersigned authority, personally appeared Randall R. LaBauve, who being first duly sworn deposes and says:

1. My name is Randall R. LaBauve, and I occupy the position of Vice President of Environmental Services, Florida Power & Light Company, 700 Universe Boulevard, Juno, Florida. In this position I have knowledge of and have familiarity with the matters addressed in this affidavit.

2. I received a Bachelor of Arts degree in Psychology from Louisiana State University in 1983 and a Juris Doctor degree from Louisiana State University in 1986. I joined FPL in 1995 as an Environmental Lawyer and in 1996 assumed the responsibility of Director of Environmental Services. In July of 2002, I assumed the responsibility of Vice President of Environmental Services. Prior to joining FPL I was the Director of Environmental Affairs for Entergy Services, Incorporated located in Little Rock, Arkansas and prior to that practiced law with Milling, Benson, Woodward, Hilliard, Pierson and Miller in New Orleans, Louisiana.

3. I am responsible for directing the overall corporate environmental planning, programs, licensing, and permitting activities to ensure the basic objective of obtaining and maintaining the federal, state, regional and local government approvals necessary to site, construct and operate FPL's power plants, transmission lines, and fuel facilities and maintain compliance with environmental laws.

4. In 1972, Congress enacted the Clean Water Act (CWA). Section 316 (b) of the CWA states, "Any standard established pursuant to Section 301[Effluent Limitations] or Section 306 [National Standards of Performance] of the Act and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact". In 1976, EPA proposed a rule to define "Best Technology Available" (BTA). This rule was successfully challenged. In 1977, EPA developed guidelines for compliance with Section 316 (b) that were implemented through the National Pollutant Discharge Elimination System (NPDES) permit programs. All NPDES permits for power plants issued since that time have required facilities to be in compliance with the Section 316 (b) guidelines. This compliance has been demonstrated on a case-by-case basis, using the "Best Professional Judgment" of permitting engineers. In 1993, the Hudson Riverkeeper (Riverkeeper), an environmental group headquartered in New York, sued to require the EPA to promulgate rules to implement Section 316 (b), instead of relying on case-by-case determinations under the guidelines. The EPA entered into a consent decree in the Riverkeeper litigation that required it to promulgate rules implementing Section 316(b). This rulemaking is being done in three phases. The Phase I rule became final on January 17, 2002 and applies to new facilities (i.e., those that began construction after that date). The final Phase II rule, which is the subject of this affidavit, was signed by the EPA Administrator on May 28 2004 (the "Phase II Rule"). It is scheduled to be published in the Federal Register in approximately mid-June and will become effective 60 days after publication. EPA is scheduled to publish a draft Phase III rule in November 2004, which will address facilities not covered by Phases I or II.

5. The Phase II Rule modifies 40 CFR Parts 9, 12, 122, 123, 124, and 125. The portions of those regulations modified by the Phase II Rule are provided as Exhibit 1 to my affidavit. The Phase II Rule implements Section 316 (b) for certain existing power producing facilities that employ cooling water intake structures (CWIS) and that withdraw 50 million gallons per day (MGD) or more of water from rivers, streams, lakes, reservoirs, estuaries, oceans or other waters of the United States for cooling purposes. The FPL power plants that are subject to the Phase II Rule and their associated MGD and waterbody types are provided as Exhibit 2 to my affidavit. The Florida Department of Environmental Protection (FDEP) will be promulgating its own rule for Phase II facilities within one year, but in the meantime, any NPDES permits issued must comply with the EPA's Phase II Rule.

6. For affected facilities, the Phase II Rule establishes national requirements applicable to, and that reflect the best technology available (BTA) for the location, design, construction and capacity of, existing CWIS to minimize adverse environmental impacts. These requirements, based on water body type and amount withdrawn by a facility, will be implemented through NPDES permits. The Phase II Rule is an "environmental law or regulation" within the meaning of Section 366.8255 of the Florida Statutes.

7. Affected facilities must meet "performance standards" prescribed under the Phase II Rule. First, they must reduce impingement mortality by 80-95% from a "calculation baseline." The calculation baseline is the amount of impingement mortality (those organisms that are impinged and not released to the environment live) and/or entrainment (those organisms that are carried into a cooling water system through a CWIS) that would occur assuming the plant is located on a shoreline with no measures being taken to reduce impingement mortality or entrainment. Second, if a plant has a capacity factor above 15%, and (1) withdraws cooling water from tidal river, estuary or ocean, or (2) is designed to withdraw more than 5% of the mean annual flow from a freshwater river or stream, entrainment must be reduced by 60-90% from the calculation baseline. At the current time it appears that, due to their capacity factors and locations, the Cutler, Sanford Unit 3, Port Everglades, Ft. Lauderdale, Riviera, Cape Canaveral, Ft. Myers, and St. Lucie plants will have to meet both the impingement mortality and entrainment performance standards of the Phase II Rule.

8. The Phase II Rule identifies five Compliance Alternatives that may be used by affected facilities to comply with BTA requirements for minimizing adverse environmental impacts associated with CWIS. Four of the compliance alternatives are based on meeting the applicable performance standards and the fifth allows for the request of a site-specific determination of BTA available for minimizing adverse environmental impacts under certain circumstances. The five Compliance Alternatives are:

a. Demonstrate that the facility has reduced flow commensurate with a closed-cycle recirculating system. This alternative is met if the facility has a closed-loop, recycled cooling system such as a cooling tower or cooling pond. No monitoring is required to demonstrate compliance. A subset of this requirement meets the impingement mortality standard if you reduce the through-screen velocity of the cooling water to less than 0.5 ft/sec.

b. Demonstrate that existing design and construction technologies, operational measures, and/or restoration measures meet the performance standards. This alternative is satisfied if monitoring is conducted and the performance standards for impingement mortality and entrainment are met without further effort (i.e.; installing additional technologies, restoration, etc.)

c. Demonstrate that the facility has selected design and construction technologies, operational measures, and/or restoration measures that will, in combination with any existing design and construction technologies, operational measures, and/or restoration measures, meet the performance standards. For this alternative, the facility installs technologies, uses operational measures and/or restoration measures and then samples to demonstrate compliance with the performance standards.

d. Demonstrate that the facility has installed and properly operates and maintains an approved technology. Currently there is only one "approved technology" that can be used to demonstrate compliance under very prescribed circumstances. This technology, called a "wedge-wire screen" must be installed in a fresh-water river or stream with a minimum stream velocity. Other technologies may be approved at the discretion of the EPA.

e. Demonstrate that a site-specific determination of BTA is appropriate. This alternative is also known as the "cost-cost" or "cost-benefit" test. If a permittee can demonstrate that the cost of compliance for the rule is significantly greater than the cost that EPA considered in the rule making, or that the cost of compliance is significantly greater than the benefit that will be derived from compliance, he can request that a less stringent "Site-Specific Alternative" BTA be approved. Nuclear facilities that can demonstrate, based on a consultation with the Nuclear Regulatory Commission (NRC), that compliance would result in a conflict with a safety requirement established by the NRC, must make a site-specific determination of BTA for minimizing adverse environmental impact that will not conflict with the NRC's safety requirement.

9. Each affected facility must prepare and submit a Compliance Demonstration Study (CDS) to show that it will comply with one of the Compliance Alternatives. The Phase II Compliance Alternatives, corresponding CDS requirements, and impacted FPL facilities are provided as Exhibit 3 to my affidavit. Additionally, Exhibit 4 to my affidavit provides a detailed description of each CDS requirement.

10. The CDS for each affected facility must be submitted within 3 ¼ years of the effective date of the Phase II Rule. Preparation of a CDS entails a great deal of work, which FPL estimates will require most, if not all, of the available 3 ½ years to complete. Therefore, FPL will need to begin its CDS work promptly after the Phase II Rule becomes effective. FPL plans to complete a CDS for each affected plant in 2007-2008. Assuming that the FDEP adopts a Phase II rule that is satisfactory to the EPA, the CDS's will be submitted to the FDEP for review. The FDEP would then conduct its review in 2008-2009, and in 2010-2011 FPL would begin to implement the technology and/or restoration measures required by the FDEP review. During 2011-2014, FPL would perform verification monitoring studies required to ensure compliance with the FDEP's Phase II rule.

11. FPL costs associated with its CWA Section 316 (b) Phase II Rule Project ("the Project") will be "environmental compliance costs" within the meaning of Section 366.8255 of the Florida Statutes.

12. FPL expects to begin incurring expenses for the Project in July 2004. O&M costs for the Project for July through December 2004 are estimated to be $500,000. Those costs are for outside contractors and consultants, which will be selected by competitive bidding. The costs relate to the development of Proposals for Information Collection, which is the first step in the CDS's for the Cutler, Sanford Unit 3 and St. Lucie Plants. FPL is not currently recovering these costs through base rates or any other cost recovery mechanism.

12. Due to the need for additional information collection and assessment in order to estimate expenses for 2005 and beyond, FPL can provide Project cost estimates only for 2004 at this time. FPL will provide cost estimates for 2005 in its September 3, 2004 ECRC projection filing. As information is collected and becomes available, FPL will provide cost estimates for years beyond 2005 in future ECRC filings. In all cases, FPL's cost estimates will exclude any costs that are included in base rates or that are recovered through another cost-recovery mechanism.

13. FPL does not seek to change the ECRC factors currently in effect for 2004. If approved, FPL will include program costs incurred in 2004 in its 2004 Estimated/Actual True-Up filing.

I hereby certify that on this 17th day of June, 2004 before me, an officer duly authorized in the State and County aforesaid to take acknowledgements, personally appeared Randall R. LaBauve who is personally known to me, and he acknowledged before me that he executed this certification of signature as his free act and deed.

In witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as this 17th day of June, 2004.

Randall R. LaBauve

Notary Public
State of Florida
My Commission Expires:

HOLLY M. ALTMAN
Notary Public - State of Florida
My Commission Expires Apr 29, 2008
Commission # DD315156

EXHIBIT 1

SECTION 40 CFR PARTS 9, 12, 122, 123, 124, 125

"NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM - FINAL REGULATIONS TO ESTABLISH REQUIREMENTS FOR COOLING WATER INTAKE STRUCTURES AT PHASE II EXISTING FACILITIES"

TO BE PROVIDED UPON PUBLICATIOIN

EXHIBIT 2

FPL'S IMPACTED FACILITES – MGD WITHDRAWALS AND WATERBODY TYPE

FPL'S IMPACTED FACILITIES
MGD WITHDRAWALS AND WATERBODY TYPE

Facility	Design Intake Capacity (MGD)	Waterbody Type
Cape Canaveral –Unit 1	392	Estuary
Cape Canaveral - Unit 2	392	Estuary
Cutler - Unit 5	75	Estuary
Cutler – Unit 6	128	Estuary
Fort Myers – Unit 1	167	Estuary
Fort Myers – Unit 2	396	Estuary
Ft. Lauderdale – Unit 4	181	Estuary
Ft. Lauderdale – Unit 5	181	Estuary
Port Everglades – Unit 1	231	Estuary
Port Everglades – Unit 2	231	Estuary
Port Everglades – Unit 3	396	Estuary
Port Everglades – Unit 4	396	Estuary
Riviera – Unit 3	282	Estuary
Riviera – Unit 4	282	Estuary
Sanford – Unit 3	167	Freshwater River
St. Lucie – Unit 1	695	Ocean
St. Lucie - Unit 2	695	Ocean

EXHIBIT 3

PHASE II COMPLIANCE ALTERNATIVES, REQUIREMENTS, AND IMPACTED FPL FACILITIES

PHASE II COMPLIANCE ALTERNATIVES, REQUIREMENTS, AND IMPACTED FPL FACILITIES

Compliance Alternative	Comprehensive Demonstration Study Requirements	Impacted FPL Facility [1]
1. – Demonstrate facility has reduced flow commensurate with closed-cycle recirculating system	With next application, facilities must submit: • Source water physical data • Cooling water intake structure data • Cooling water system data	Martin, Manatee, and Sanford Units 4 and 5 Plants
1a – Demonstrate facility has reduced design intake velocity to ≤ 0.5 ft/s	No requirements relative to impingement mortality reduction. If subject to entrainment performance standard, the facility must only address entrainment in the applicable components of its Comprehensive Demonstration Study, based on the compliance option selected for entrainment reduction.	
2 – Demonstrate that existing design and construction technologies, operational measures, and/or restoration measures meet the performance standards	Proposal for Information Collection Source Waterbody Flow Information Impingement Mortality and/or Entrainment Characterization Study (as appropriate) Technology and Compliance Assessment Information ▪ Design and Construction Technology Plan ▪ Technology Installation and Operation Plan Restoration Plan (if appropriate) Verification Monitoring Plan	St. Lucie Plant
3 – Demonstrate that facility has selected design and construction technologies, operational measures, and/or restoration measures that will, in combination with any existing design and construction technologies, operational measures, and/or restoration measures, meet the performance standards	Proposal for Information Collection Source Waterbody Flow Information Impingement Mortality and/or Entrainment Characterization Study (as appropriate) Technology and Compliance Assessment Information • Design and Construction Technology Plan ▪ Technology Installation and Operation Plan Restoration Plan (if appropriate) Verification Monitoring Plan	Cutler, Sanford Unit 3, Port Everglades, Ft. Lauderdale, Riviera, Cape Canaveral, Ft. Myers, and St. Lucie Plants
4 – Demonstrate that facility has installed and properly operates and maintains an approved technology	Technology Installation and Operation Plan Verification Monitoring Plan	Sanford Unit 3, St. Lucie Plants
5 – Demonstrate that site-specific determination of BTA is appropriate	Proposal for Information Collection Source Waterbody Flow Information Impingement Mortality and/or Entrainment Characterization Study (as appropriate) Technology Installation and Operation Plan Information to Support Site Specific Determination of BTA including: ▪ Comprehensive Cost Evaluation Study (cost-cost test and cost-benefit test); ▪ Valuation of Monetized Benefits of Reducing IM&E (cost-benefit test only); ▪ Site-Specific Technology Plan (cost-cost test and cost-benefit test); Verification Monitoring Plan	Cutler, Sanford Unit 3, Port Everglades, Ft. Lauderdale, Riviera, Cape Canaveral, Ft. Myers, and St. Lucie Plants

[1] Study requirements for each specific plant will depend on the results of the Proposal for Information Collection.

EXHIBIT 4

DESCRIPTION OF COMPREHENSIVE DEMONSTRATION STUDY REQUIREMENTS

DESCRIPTION OF COMPREHENSIVE DEMONSTRATION STUDY REQUIREMENTS

COMPREHENSIVE DEMONSTRATION STUDY REQUIREMENT	REQUIREMENT DESCRIPTION	IMPACTED COMPLIANCE ALTERNATIVE(S)
Proposal for information collection	Involves submitting to the FDEP for review and approval a description of the information that will support the comprehensive demonstration study. The proposal must include: (1) A description of the proposed and/or implemented technology (ies), operational measures and/or restoration measures to be evaluated in the study. (2) A list and description of any historical studies characterizing impingement and entrainment and/or the physical and biological conditions in the vicinity of the cooling water intake structures and their relevance to the proposed study. (3) A summary of past, ongoing or voluntary consultations with appropriate Federal and State fish and wildlife agencies relevant to the study and a copy of written comments received as a result of the consultation. (4) A sampling plan for any new field studies that are proposed in order to ensure there is sufficient data to develop a scientifically valid estimate of impingement mortality and entrainment (I&E).	2, 3, 5
Source Waterbody Flow Information	The annual stream flow must be provided and a determination made as to whether or not 5% or more of the flow is utilized by the facility. If not, the entrainment performance standard does not apply.	2,3,5
Impingement Mortality and/or Entrainment Characterization Study	An Impingement Mortality and Entrainment Characterization Study must be provided and include the following items: (1) Taxonomic identifications of all life stages of species of fish and shellfish in the vicinity of the CWIS and those most susceptible to I&E (2) Identification of their abundance and temporal/spatial characteristics in the vicinity of the CWIS. (3) Documentation of the current impingement mortality and entrainment of all life stages of fish and shellfish at the facility and an estimate of impingement mortality and entrainment under the calculation baseline.	2,3,5

COMPREHENSIVE DEMONSTRATION STUDY REQUIREMENT	REQUIREMENT DESCRIPTION	IMPACTED COMPLIANCE ALTERNATIVE(S)
	(4) Identification of species that are protected under Federal and State law (including threatened and endangered) that might be susceptible to I&E.	
Technology and Compliance Assessment Information	Design and Construction Technology Plan- A Design and Construction Technology Plan must be submitted if you choose to use design and construction technologies or operational measures in whole or in part to meet the performance standards. The plan must explain the technologies and/or operational measures you have in place or have selected to meet the performance standards. Examples of design and construction technologies are, but not limited to: wedgewire screens, fine mesh screens, fish handling and return systems, barrier nets, aquatic filter barrier systems, velocity caps, and enlargement of the intake structure opening to reduce velocity. Examples of operational measures are: seasonal shutdowns or reductions in flow and continuous operation of traveling screens. The plan must include: (1) A description of the design and operation of all technologies and/or operational measures, existing or proposed, required to reduce I&E. (2) Calculations of the reduction in I&E achieved by the technologies and operational measures. (3) Documentation, which demonstrates that the location, design, construction, and capacity of the CWIS selected, reflects BTA for minimizing adverse environmental impact. (4) Design calculations, drawings, and estimates to support (1) and (2) above.	2,3,5
Technology and Compliance Assessment Information	Technology Installation and Operation Plan- If you use design and construction technologies and/or operational measures in whole or in part to comply with the applicable requirements, you must submit the following information: (1) A schedule for the installation and maintenance of any new design and construction technologies. Any down time of units to accommodate installation and/or maintenance of these technologies should be scheduled to coincide with otherwise necessary downtime. If additional downtime is required, coordinate the scheduling to ensure that impacts to	2,3,4,5

COMPREHENSIVE DEMONSTRATION STUDY REQUIREMENT	REQUIREMENT DESCRIPTION	IMPACTED COMPLIANCE ALTERNATIVE(S)
	reliability and supply are minimized. (2) A list of operational and other parameters to be monitored, with location and frequency. (3) A list of activities to ensure to the degree practicable the efficacy of the installed design and construction technologies and operational measures and the schedule for implementing them. (4) A schedule and methodology for assessing the efficacy of any installed design and construction technologies and operational measures in meeting applicable performance standards or site-specific requirements, including an adaptive management plan for revising design and construction technologies, operational measures, operation and maintenance requirements, and/or monitoring requirements if the assessment indicates that applicable performance standards or site-specific standards are not being met. (5) If you choose the option to design and install an "approved technology", you must document that the appropriate site conditions are met.	
Restoration Plan	Information to Support Proposed Restoration Measures must be provided if restoration measures are chosen to meet the performance standards. The following must be submitted: (1) A demonstration that the use of design and construction technologies and/or operational measures were evaluated and an explanation of how it was determined that restoration would be more feasible, cost-effective or environmentally desirable. (2) A description of the design and operation of all restoration measures (existing or proposed) that are in place or will be used to produce fish and shellfish. (3) Quantification of the ecological benefits of the proposed restoration measures. Use information from the Impingement Mortality and/or Entrainment Characterization Study, any other available information to estimate the reduction in fish and shellfish impingement mortality and entrainment that is necessary to comply with the rule. You must calculate the production of fish and shellfish that will be achieved with restoration measures that are existing or will be installed.	2,3

COMPREHENSIVE DEMONSTRATION STUDY REQUIREMENT	REQUIREMENT DESCRIPTION	IMPACTED COMPLIANCE ALTERNATIVE(S)
	(4) Design calculations, drawings and estimates to document that the presented restoration measures in combination with design and construction technologies and/pr operational measures, or alone, will meet the performance standards. If restoration measures address the same fish and shellfish species identified in the Impingement Mortality and/or Entrainment Characterization Study (in-kind restoration), you must demonstrate that the reduction measures will produce a level of these fish and shellfish substantially similar to that which will result from the e applicable performance standards or that they will satisfy the site-specific requirements that were established. If restoration measures address fish and shellfish species different from those identified in the Impingement Mortality and/or Entrainment Characterization Study (out-of-kind restoration) you must demonstrate that the restoration measures produce ecological benefits substantially similar to or greater than those that would be realized through in-kind restoration. Such a demonstration should be a watershed approach to restoration planning and consider applicable multi-agency watershed restoration plans, site-specific peer-reviewed ecological studies, and/or consultation with appropriate Federal and State fish and wildlife management agencies. (5) A plan utilizing an adaptive management method for implementing, maintaining and demonstrating the efficacy of the restoration measures selected and for determining the extent to which restoration measures, or restoration measures in combination with design and construction technologies and operational measures, have met the applicable requirements. (6) A monitoring plan that includes a list of the restoration parameters to be monitored, the frequency of monitoring and success criteria for each parameter. (7) A list of activities that will be undertaken to ensure the efficacy of the restoration measures, a description of the linkages between these activities and the items selected and the implementation schedule. (8) A process for revising the Restoration Plan, as new information, including monitoring data, becomes	

COMPREHENSIVE DEMONSTRATION STUDY REQUIREMENT	REQUIREMENT DESCRIPTION	IMPACTED COMPLIANCE ALTERNATIVE(S)
	available, if applicable requirements are not being met. (9) A summary of past, ongoing or voluntary consultation with federal or Sate agencies regarding the proposed restoration measures. (10) If requested by the director, a peer review of the items submitted for the Restoration Plan. Peer reviewers are chosen in consultation with the Director and must have appropriate qualifications. (11) A description of the information to be included in a bi-annual status report to the Director.	
Information to Support Site Specific Determination of BTA	Information on Site-specific Determination of BTA for Minimizing Adverse Environmental Impact must be provided if a site-specific determination of BTA for minimizing AEI is chosen because costs are significantly greater than those EPA considered in establishing the Phase II performance standards, or because costs are significantly greater than the benefits of complying with the otherwise applicable requirements. The following information must be provided: <u>Comprehensive Cost Evaluation Study –</u> (1) Engineering cost estimates in sufficient detail to document the costs of implementing design and construction technologies, operational measures, and/or restoration measures that would be needed to meet the applicable performance standards. (2) Demonstration that the costs documented significantly exceed either those considered by the Administrator for a facility like yours in establishing the applicable performance standard or the benefits of meeting the applicable performance standard. (3) Engineering cost estimates in sufficient detail to document the costs of implementing the design and construction technologies, operational measures, and/or restoration measures in your site-Specific Technology Plan. <u>Benefits Valuation Study-</u> If the Support Site Specific Determination of BTA is used, you must use a comprehensive methodology to fully value the impacts of impingement mortality and entrainment at the site and the benefits achievable by meeting the applicable performance standards. In addition to valuation benefits, the benefit study must	5

COMPREHENSIVE DEMONSTRATION STUDY REQUIREMENT	REQUIREMENT DESCRIPTION	IMPACTED COMPLIANCE ALTERNATIVE(S)
	include; (1) A description of the methodology used to value commercial, recreational and ecological benefits. (2) Documentation of the basis for any assumptions and quantitative estimates. If an entrainment survival rate other than zero is used, you must submit a determination of entrainment survival at the facility based on a study approved by the director. (3) An analysis of the effects of significant sources of uncertainty on the results of the study. (4) If requested by the Director, a peer review of the items submitted for the Benefits Valuation Study. (5) A description of any non-monetized benefits that would be realized if the applicable performance standards are met and qualitative assessment of their magnitude and significance. <u>Site-Specific Technology Plan –</u> Based on results of the Comprehensive Cost Evaluation Study and the Benefits Valuation Study, if applicable, a Site-Specific Technology Plan must be submitted for review. The plan must contain: (1) A description of the design and operation of all D&C technologies and operational measures, and restoration measures, along with information demonstrating the efficacy of the technology for species present. (2) An engineering estimate of the efficacy of the proposed and/or implemented technologies or operational measures for reducing I&E. (3) A demonstration that the proposed and/or implemented design and construction technologies, operational measures and/or restoration measures achieve an efficacy that is close as practicable to the applicable performance standard without resulting in costs significantly greater than either the costs considered by the administrator for a facility like yours in establishing the applicable performance standards, or, as appropriate, the benefits of complying with the applicable performance standards at the facility. (4) Design calculations, drawings and estimates to	

COMPREHENSIVE DEMONSTRATION STUDY REQUIREMENT	REQUIREMENT DESCRIPTION	IMPACTED COMPLIANCE ALTERNATIVE(S)
	support the information above.	
Verification Monitoring Plan	A Verification Monitoring Plan must be included to conduct, at a minimum, two years of monitoring to verify the full-scale performance of the proposed technologies, operational measures or restoration measures selected. The study begins when all of the measures are in place. The plan must describe: (1) The frequency and duration of monitoring and the parameters to be monitored, as well as the basis for both. The parameters selected and duration and frequency must be consistent with any methodology for success in meeting applicable performance standards In the Technology Installation and Operation Plan. (2) A proposal on how naturally moribund (already dead when they enter the intake) fish and shellfish would be identified and taken into account in assessing success in meeting the performance standards. (3) A description of the information to be included in a bi-annual status report to the Director.	2,3,4,5