CONNECTICUT RIVER DOWNSTREAM FISH PASSAGE

NEW ENGLAND POWER COMPANY

CONNECTICUT RIVER ATLANTIC SALMON COMMISSION

U.S. FISH AND WILDLIFE SERVICE

NATIONAL MARINE FISHERIES SERVICE

STATES OF CONNECTICUT, MASSACHUSETTS, NEW HAMPSHIRE, AND VERMONT

MEMORANDUM OF AGREEMENT

THIS AGREEMENT, is made and entered into this 26th day of July, among New England Power Company ("the Company"), a Massachusetts Corporation; the Connecticut River Atlantic Salmon Commission ("the Salmon Commission"), an interstate Commission chartered by and composed of the member States of New Hampshire, Vermont, Connecticut, and Massachusetts and the Congress of the United States (P.L. 98-138); the U.S. Fish and Wildlife Service (FWS), an agency of the Department of the Interior; the National Marine Fisheries Service (NMFS), an agency of the U.S. Department Commerce; the Connecticut Department Environmental of Protection; the Massachusetts Division of Fisheries and Wildlife; the New Hampshire Fish and Game Department; and the Vermont Fish and Wildlife Department. The FWS and NMFS are together herein "the The foregoing State fishery management agencies are together herein "the States".

WHEREAS, the Company holds licenses which shall expire on April 30, 2018, from the Federal Energy Regulatory Commission (hereinafter "FERC") for the following hydroelectric Projects

located on the Connecticut River: Vernon Project, L. P. No. 1904, Vernon, Vermont-Hinsdale, New Hampshire ("Vernon"); Bellows Falls Project, L. P. No. 1855, Rockingham, Vermont-Walpole, New Hampshire ("Bellows Falls"); and Wilder Project, L. P. No. 1892, Hartford, Vermont-Lebanon, New Hampshire ("Wilder"); (Vernon, Bellows Falls, and Wilder, collectively the "Projects"); and

WHEREAS, the Salmon Commission includes State appointed citizens, representatives of participating States' fishery management agencies, and representatives of the Services, and is charged with managing the Atlantic salmon resource in the Connecticut River; and

WHEREAS, the States, the Services, and the Salmon Commission have as a common goal to ensure that downstream fish passage systems are constructed at all barriers and hazards to migration of anadromous fishes in the Connecticut River Basin, and that such systems not cause mortality, injury, or delay to the anadromous fish using them, and further that such systems be monitored to assess the contribution made toward attainment of this common goal; and

WHEREAS, the Company wishes to cooperate with the States, the Services, and the Salmon Commission in ensuring downstream fish passage at the Projects; and

WHEREAS, the Company has in the past cooperated with the States, the Services, and the Salmon Commission in promoting the restoration of anadromous fishes to the Connecticut River, and has made significant expenditures to construct and operate upstream

fishway systems for anadromous fishes at the Projects; and

WHEREAS, the States, the Services, and the Salmon Commission have expended significant resources to restore anadromous fishes in the Connecticut River; and

WHEREAS, all parties wish to cooperate for the successful restoration of anadromous fishes to the Connecticut River by providing downstream fish passage systems for the out-migration of anadromous fishes from the River in accordance with the schedules set forth in Articles I and II below; and

NOW, THEREFORE, in consideration of the premises and mutual promises contained herein, the Parties agree to the following:

ARTICLE I

PASSAGE DATES

The Company agrees to provide downstream passage systems for Atlantic salmon and fish from the family clupeidae at Vernon, and for Atlantic salmon at Bellows Falls and Wilder by April 1994. Downstream passage systems may include physical facilities, spillage plans and reasonable operational modifications. The Salmon Commission, upon petition by the Company, may extend the dates for providing said passage systems at any or all of the Projects subject to the conditions of Article V herein.

ARTICLE II

SCHEDULE NECESSARY TO MEET PASSAGE DATES

A. Overall Schedule

The Company will foll s

The Company will foll outlined below: VERNON	ow the schedule of activities which is	
* Through Spring 1990	Physical model testing	
* Spring 1990	Study and identify alternative systems. Conduct radio-tagged fish studies.	
* Summer 1990	<pre>Install and operate Vernon "fish pipe"</pre>	
* 1991	Evaluate alternative systems with radio-tagged fish studies	
* 1992-1993	Engineer and design preferred system	
* Spring 1993	**Issue a notice to proceed with construction of preferred system	
* April 1994	Operate preferred system and monitor passage	
* 1994-1996	Evaluate effectiveness and modify facility as necessary	
BELLOWS FALLS * Through Spring 1990	Physical model testing	
* 1990 - 1992		
1990 - 1992	Evaluate alternative systems with radio-tagged fish studies	
* 1992 - 1993	Engineer and design preferred system	
* Spring 1993	**Issue a notice to proceed with construction of preferred system	
* April 1994	Operate preferred system and monitor passage	
* 1994-1996 WILDER	Evaluate effectiveness and modify facility as necessary	
* 1991 - 1993	Evaluate alternative spillage with	
* 1993	radio-tagged fish Develop spillage plan	
* April 1994	Implement spillage plan and monitor passage	
* 1994-1996	Evaluate effectiveness and modify	

Evaluate effectiveness and modify spillage plan as necessary

^{**} The issuance of a notice to proceed in this agreement means, notification of the selected contractor to proceed with construction as described and defined in the agreed on contract.

B. Construction at Vernon and Bellows Falls

The Company agrees to begin the physical construction of downstream fish passage systems at Vernon and Bellows Falls during the Spring of 1993. The Company agrees to complete construction of the fish passage systems in time for them to be operational during the Atlantic salmon downstream migration period beginning April 1994.

C. Wilder Operational Plan

The Company agrees to develop a spillage plan in time for it to be operational during the Atlantic salmon downstream migration period beginning April 1994.

ARTICLE III

COOPERATION AMONG THE PARTIES

A. General Considerations

The parties agree to cooperate in the implementation of the terms of this Agreement.

B. Review and Assistance

In order to ensure that downstream fish passage systems at the Projects are provided in accordance to the schedule contained in Article II.A., the Company agrees to provide requests for assistance and reviews in a timely manner. The primary obligation for obtaining applicable permits and licenses shall be the Company's responsibility. The States, the Services, and the Salmon Commission will cooperate with the Company in a manner consistent with applicable State and Federal laws and policies regarding the Company's application for any permit or license necessary to provide said fish passage systems, and agree to provide review, comments, or advice to the Company in a timely manner.

C. Agency Consultation and Review

Consultation and review reasonably requested by the Company according to the terms of this Article will be provided to the Company by the States, the Services, and the Salmon Commission at no cost to the Company.

D. Submittal to FERC

The parties shall submit this Agreement to the FERC upon its execution.

E. Anti-Deficiency Provision

This Agreement does not bind the Services and the States to expend funds in any fiscal year in excess of appropriations made by their respective legislative bodies or administratively allocated for the purpose of this Agreement.

ARTICLE IV

REPORTS BY THE COMPANY

Upon execution of this Agreement the Company shall submit written quarterly progress reports to the Salmon Commission, the States and the Services, with particular reference to whether the work is on schedule.

ARTICLE V

MODIFICATION OF TIME LIMITS

The parties may, by mutual written agreement, modify any time limit in this Agreement. Approval of such modifications shall not be withheld by any party in the event of: (1) floods, war, acts of God, natural disasters, fires, environmental orders, equipment failure, strikes, shortages of fuel and materials, and similar events beyond the control of the Company, or (2) the need for construction of a separate downstream fish passage facility at

Wilder; provided that the time which the Company would otherwise be required to complete construction of any of the downstream fish passage systems shall be extended for a reasonable period of time relevant to the facts and circumstances on a case-by-case basis. Additionally, approval of such modification of time limits shall not be withheld whenever all of the parties are in agreement that all downstream fish passage systems under consideration cannot achieve the expected results at any of the Projects based upon testing and study conducted according to the terms of this Agreement.

ARTICLE VI

OPERATION AND MAINTENANCE

A. Responsibility for Operation and Maintenance

To ensure the successful operation of downstream fish passage systems provided pursuant to this Agreement, the Company shall be responsible for the effective operation and maintenance of those facilities.

B. <u>Periods of Operation</u>

The downstream fish passage systems provided at Vernon pursuant to this Agreement will be operated throughout the periods of downstream migration for Atlantic salmon and clupeids. The downstream passage systems provided at Bellows Falls and Wilder pursuant to this Agreement will be operated throughout the periods of Atlantic salmon downstream migration. The operating schedules shall be determined annually by the Salmon Commission after consultation with the Company. The Company may petition the Salmon Commission in writing for changes to the operations schedule based on operations experience or other related data.

ARTICLE VII

ADDITIONAL CONSTRUCTION

The downstream fish passage systems at the Projects will be designed in accordance with design plans developed by the Company in cooperation with the States, the Services, and the Salmon Commission, and it is the expectation of all parties that such systems will accommodate the downstream passage at the Projects of the fish species for which they were designed. The States, the Services, and the Salmon Commission agree they will not seek construction of different or additional downstream fish passage at the Projects for a ten year period following systems commencement of system operation, except that said parties retain such rights during said period and thereafter for replacement of systems destroyed or damaged by acts of God or similar events and for reasonable minor modifications. However, any party may initiate negotiations to seek modification of the fish passage facilities at these projects when new technology has been developed which allows for a cost effective and significant improvement in fish passage capabilities at these projects.

ARTICLE VIII

NOTICES

All notices relating to this Agreement (including all reports) shall be in writing and shall be deemed to have been properly given if mailed by first class mail addressed in the following manner:

If to the Company:

New England Power Company

25 Research Drive

Westborough, Massachusetts 01582 Attention: Director, Environmental

Affairs

If to the Services:

Regional Director

United States Department of Interior

Fish and Wildlife Service One Gateway Center, Suite 700

Newton Corner, Massachusetts 02158

and:

Director, Northeast Region

National Marine Fisheries Service

One Blackburn Drive

Gloucester, Massachusetts 01930

If to New Hampshire:

Executive Director

New Hampshire Fish and Game Dept.

2 Hazen Drive

Concord, New Hampshire 03301

If to Vermont:

Director of Fisheries

Vermont Dept. of Fish and Wildlife

103 South Main Street

Center Building

Waterbury, Vermont 05676

If to Massachusetts:

Director

MA Division of Fisheries & Wildlife

100 Cambridge Street

Boston, Massachusetts 02202

If to Connecticut:

Chief, Bureau of Fisheries & Wildlife

CT Dept. of Envt. Protection

State Office Building

Hartford, Connecticut 06115

If to Salmon Commission: Executive Assistant

Connecticut River Atlantic Salmon

Commission

P. O. Box 71

Turners Falls, Massachusetts 01376

Or such other address as any party may from time to time designate by notice in writing to the other parties.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives and officers all as of the date set forth above.

NEW ENGLAND POWER COMPANY BY:	
Lydia mPastussele_	July 26, 1990
LYDIA/M. PASTUSZEK // Vice-President	Date
CONNECTICUT RIVER ATLANTIC SALMON COMMISSION BY:	
Day Gay	July 26, 1990
DAVID F. EGAN Chairman	
THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTE BY:	CTION
2 Colutations	July 26, 1990
ROBERT A. JONES Chief, Bureau of Fisheries and Wildlife	
MASSACHUSETTS DIVISION OF FISHERIES AND WILDLIFE BY:	
Muye I. Mr. Oelling	July 26, 1990
WAYNE F. MacCALLUM Director	
NEW HAMPSHIRE FISH AND GAME DEPARTMENT	
Langle kormendean	July 30, 1990
DONALD A. NORMANDEAU, Ph.D Executive Director	
VERMONT FISH AND WILDLIFE DEPARTMENT BY;	
I smoth langon	August 6, 1990
TIMOTHY VAN ZANDT Commissioner	

U. S. FISH AND WILDLIFE SERVICE

BY:

RONALD E. LAMBERTSON Regional Director

July 26, 1990

July 26, 1990

Date

NATIONAL MARINE FISHERIES SERVICE

BY:

RICHARD G. SEAMANS, JR.

Acting Management Division Chief for Regional Director

cc: L. M. Pastuszek, Concord

G. P. Sasdi

M. E. Slade

H. W. Sullivan, Lebanon