

UNITED STATES OF AMERICA 83 FERC 62,099  
FEDERAL ENERGY REGULATORY COMMISSION

Western Massachusetts )                    Project No. 2334-011  
Electric Company        )

ORDER APPROVING AND MODIFYING REVISED FISH PASSAGE PLAN  
(ISSUED MAY 4, 1998)

On March 31, 1998, Western Massachusetts Electric Company (licensee), filed a revised downstream fish passage plan for the Gardners Falls Project. The revised plan was filed pursuant to paragraph (B) of the Commission order issued November 12, 1997. The purpose of the plan is to ensure protection of fish and other aquatic resources during construction and operation of the downstream fish passage facilities. The Gardners Falls Hydroelectric Project is located on the Deerfield River in Franklin County, Massachusetts.

LICENSE REQUIREMENTS

Paragraph (B) of the order issued November 12, 1997, requires the licensee to file a revised plan for downstream fish passage facilities. The revised plan is required to include design drawings of the plunge pool to prevent injury to fish passing downstream. Further, the revised plan requires the design and location of a turbidity curtain to control dispersal of sediments during construction of the jetty extension. The jetty extension is needed to anchor one end of the louver guidance structure. These revisions to the downstream fish passage plan are required to be developed after consultation with the U.S. Fish and Wildlife Service (FWS) and the Massachusetts Division of Fisheries and Wildlife (MDFW). Documentation of consultation with these agencies is required with the filing of the revised plan.

LICENSEE'S PLAN

Reservoir Drawdown

The licensee conducted an underwater inspection of the area of the proposed jetty extension and found no accumulation of silt and sediments but that the substrate is exposed bedrock. Based on these findings the licensee states a turbidity curtain is unnecessary and now proposes to draw down the reservoir during the construction of the jetty extension and the new minimum flow release gate and replacement of the stoplogs. The licensee

proposes to implement erosion control measures during regrading adjacent to the jetty. The licensee estimates that the proposed construction activities would require about 4 weeks to complete.

The licensee proposes to conduct the reservoir drawdown as rapidly as possible to reduce the time the bypassed reach would be dewatered. As soon as drawdown is complete and flow to the

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bypassed reach has stopped the licensee would conduct a survey of the bypassed reach for any stranded fish. Stranded fish would be captured and placed back into the Deerfield River downstream of the bypassed reach. After completion of construction activities and the installation of the new stoplogs, the bypassed reach would again be surveyed for any stranded fish during refilling of the reservoir. During refilling of the reservoir the new minimum flow release gate would be set to the full open position to allow the passage of the required 150 cfs once the reservoir reaches the elevation to pass this flow.

#### Plunge Pool

The licensee filed a preliminary sketch of the location of the plunge pool instead of design drawings as required in the November 12, 1997 Commission order. The licensee proposes to delay final design until after the minimum flow gate is operational so that flow patterns of the discharge can be evaluated. The licensee anticipates that the minimum flow gate would be operational by the fall of 1998. The licensee proposes to fabricate a temporary plunge pool that would be reviewed with the agencies to help determine the design of a permanent facility. The licensee plans on having the plunge pool operational along with the other downstream passage facilities by April 1, 1999.

#### RESOURCE AGENCY CONSULTATION

The licensee met with the FWS and MDFW on January 9, 1998. Items discussed included licensee's plans to construct the jetty extension and the fish passage/minimum flow gate in the dry and to delay final design of the plunge pool until after the minimum flow gate is operational. The agencies agreed with the licensee's proposal to conduct the construction work in the dry provided that: reservoir drawdown and refill occur as rapidly as possible to minimize the time the bypass reach is dewatered; during drawdown and refill of the reservoir the bypassed reach should be checked for any stranded fish; any stranded fish should be captured and moved downstream; and, the licensee obtain the

appropriate permits. In regard to licensee's proposal to delay final design of the plunge pool the agencies agreed, provided that the plunge pool or other protective measures are in place prior to startup of the fish passage facilities on April 1, 1999.

## DISCUSSION AND CONCLUSION

The licensee's revised fish passage plan provides for a reservoir drawdown during construction of the jetty extension and downstream fish passage facilities and delay in preparing the final design of the plunge pool until after the new minimum flow gate is operational. These changes in downstream fish passage plan from what was required in paragraph (B) of the November 12,

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1997, order are based on further site investigations and the need to determine flow release patterns prior to finalizing the design of the plunge pool. This revised plan has been discussed with the resource agencies and it incorporates the above conditions of these agencies to protect fish resources during the construction activities.

In regard to the final design of the plunge pool the licensee would consult with the resource agencies and would have the plunge pool in place by April 1, 1999--the startup date for the downstream fish passage facilities. Construction of the fish passage/minimum flow gate is scheduled to be completed and operational by the fall of 1998. Therefore, the licensee should file final design drawings of the plunge pool by December 1, 1998, to include documentation of consultation with the FWS and the MDFW.

The licensee's modifications to the revised downstream fish passage plan required in paragraph (B) of the November 12, 1997, order are acceptable and would contribute to meeting the fish resource management goals of the Deerfield River. The licensee's plan, as modified, should be approved.

The Director orders:

(A) The licensee's modifications to the revised fish passage plan, filed on March 31, 1998, pursuant to paragraph (B) of the November 12, 1997 order, and as modified by paragraph (B) herein, is approved.

(B) The licensee shall file with the Commission by December 1, 1998, for approval, final design drawings of the plunge pool. The filing shall include letters and comments documenting

consultation with the FWS and the MDFW.

(C) This order constitutes final agency action. Request for rehearing by the Commission may be filed within 30 days from the date of issuance of this order, pursuant to 18 CFR 385.713.

Carol L. Sampson  
Director  
Office of Hydropower Licensing