

Industrial Historic American Engineering Record (HAER) Documentation: Cabot Station Gantry Crane Turner Falls (Montague), Massachusetts

Working with professional photographer Wayne Fleming, AHS Senior Historian Bruce Clouette, Ph.D., prepared Historic American Engineering Record (HAER) documentation for the gantry crane at the Cabot Station hydroelectric generating plant (HAER No. MA-79); the documentation is part of a permanent archive of historic dams, bridges, and other historic engineering structures maintained by the Library of Congress in Washington, D.C. In addition to large-format photography, the project required documentary research in company archives, a review of historical technical literature, a complete description of the crane, and an assessment of how the crane contributed to the overall significance of the plant. When it was built in 1915, Cabot Station was the largest hydroelectric facility in New England. The crane was a special feature of the original design and illustrated the close functional integration of the plant's components. Its purpose was twofold: 1) to raise and lower the heavy intake gates for the plant's



six turbines (the crane with its 20-ton hoist was more cost-effective than individual lifter mechanisms for each gate), and 2) to provide an efficient method of protecting the turbines from debris; traveling on rails, the electrically-powered crane moved across the upstream face of the dam's 225'-long intake structure, scooping up brush and other waterborne matter and depositing it in a flume that led back to the Connecticut River below the plant. Later, the crane was adapted to sweep floating ice away from the intakes.

The overall design of Cabot Station, including the crane, appeared in the leading technical periodicals of the period and also was featured in engineering textbooks.

The HAER documentation was undertaken at the suggestion of the Massachusetts Historical Commission as part of its comments on the utility company's proposal to replace the 70-year-old crane with a more modern version.