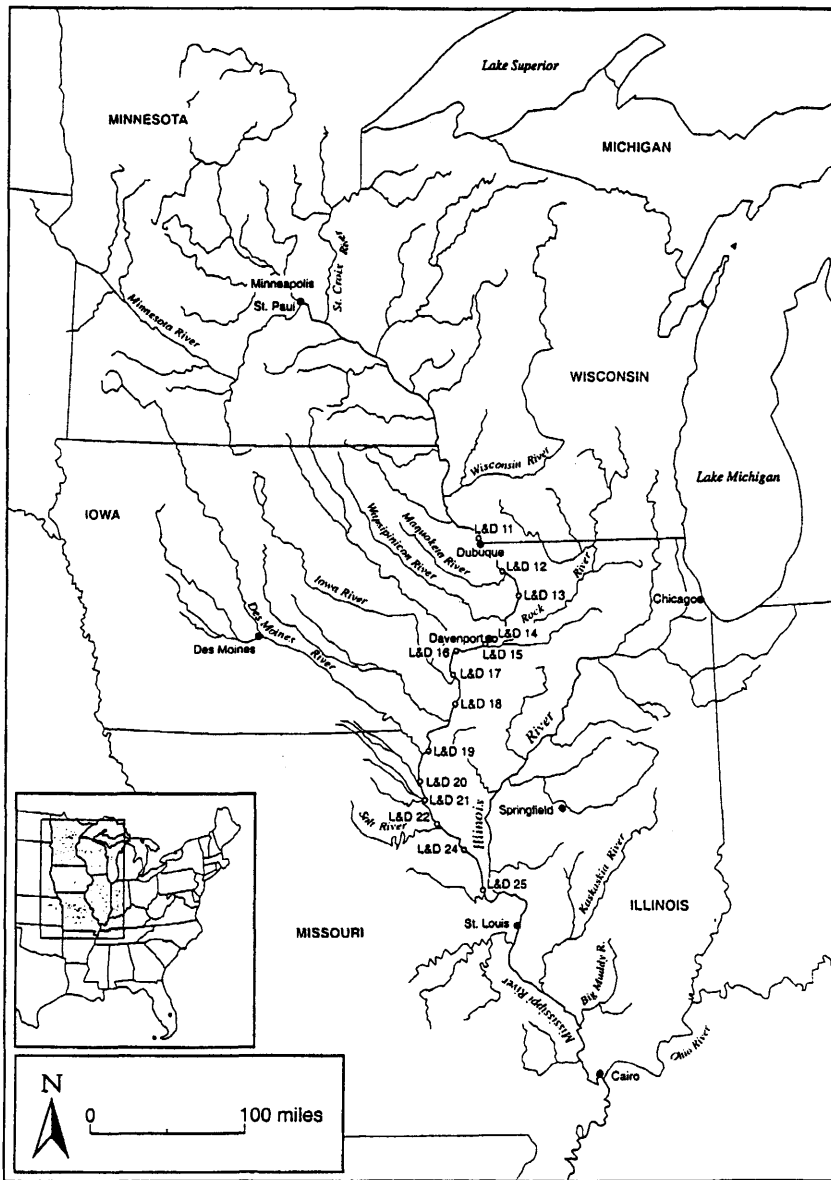


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LOCK AND DAM NO. 11 HISTORIC DISTRICT



General Project Location.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

1. Name of Property

historic name Lock and Dam No. 11 Historic District

other names/site number _____ N/A

2. Location

street & number 11 Lime Street _____ not for publication _____ N/A

city or town Dubuque vicinity _____ N/A

state Iowa code IA county Dubuque code 061

zip code 52001

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination _____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets _____ does not meet the National Register Criteria. I recommend that this property be considered significant _____ nationally statewide _____ locally. * (See continuation sheet for additional comments.)

(See § 15)

Paul J. Rubenstein, Deputy FPO, USACE
Signature of Certifying Official

3 DEC 2003

Date

Howell G. Soike

Iowa State Agency or Society Official

June 12, 2003

Date

Alicia L. Cooney
Wisconsin State Agency or Society Official

June 3, 2003

Date

4. National Park Service Certification

I hereby certify that this property is:

- entered in the National Register _____ See continuation sheet.
- determined eligible for the National Register _____ See continuation sheet.
- determined not eligible for the National Register
- removed from the National Register
- other (explain) _____

Jon Edson Beall
Signature of the Keeper

MAR 10 2004

Date

Lock and Dam No. 11 Historic District
name of property
Dubuque County, IA
county and state
Upper Mississippi River 9-Foot Navigation Project, 1931-1948
name of multiple property listing

=====
5. Classification
=====

Ownership of Property (Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property (Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

Contributing	Noncontributing
<u> 1 </u>	<u> 8 </u> buildings
<u> 0 </u>	<u> 0 </u> sites
<u> 8 </u>	<u> 9 </u> structures
<u> 4 </u>	<u> 9 </u> objects
<u> 13 </u>	<u> 26 </u> Total

Number of contributing resources previously listed in the National Register 0

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.) Upper Mississippi River 9-Foot Navigation Project, 1931-1948

=====
6. Function or Use
=====

Cat: TRANSPORTATION Sub: water-related

Current Functions (Enter categories from instructions)

Cat: TRANSPORTATION Sub: water-related

=====
7. Description
=====

Architectural Classification (Enter categories from instructions)

OTHER: lock and dam
NO STYLE: control station
OTHER: machinery

Materials (Enter categories from instructions)

foundation OTHER: timber pile
roof ASPHALT
walls CONCRETE
BRICK
other gates STEEL
machinery STEEL

Narrative Description (Complete text printed on the following seven continuation sheets.)

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Upper Mississippi River 9-Foot Navigation Project, 1931-1948
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Description

The 114.24-acre Lock and Dam No. 11 Historic District is made up of a navigation lift lock, a nonnavigable dam, and 37 associated resources. Two general contractors and numerous subcontractors, all employing the maximum number of people possible for a relief work project, built most of the main features of this district between 1934 and 1937. Eagle Point Bridge was already in place when this work began. Between 1940 and 1948, other contractors built the rest of the district's main features as part of an effort to control outdraft problems which made entrance and exit from the upstream end of the lock very difficult. Once these elements were in place, the district arrived at its mature configuration. Since September 14, 1937, the district has been in continuous use as a part of the Upper Mississippi River 9-Foot Navigation Project. Although significant features associated with the operation of the navigation system have, by necessity, been subjected to continuing maintenance, upkeep, or replacement throughout these 61 years, the district has looked the same for 22 years (1948-1970). The esplanade area of the district has changed some in the 28 years since 1970, but the river, the bluff that forms the Iowa shore, the city park atop the bluff, and the wildlife refuge on the Wisconsin side of the river have conspired to keep the district's overall setting the same as it was in 1948, with the exception of the 1982 demolition of the pre-1934 Eagle Point Bridge. The bridge approach levee remains part of the bank-to-bank structure that creates the navigation pool. Although the absence of the bridge is noticeable to those familiar with the site, its absence does not alter the basic character of the setting. The district, situated less than a quarter of a mile upstream from Dubuque, Iowa, still retains integrity of location, design, setting, materials, workmanship, feeling, and association. Even though this complex has not received its 50-year major rehabilitation, its components are in good condition.¹

General Description

The Lock and Dam No. 11 Historic District extends across the Upper Mississippi River just north of Dubuque, Iowa. The urbanized area of the city fills the flat bottomland on the Iowa shore to about 1,200 feet south of the lock. There, the bottomland west of the river ends. North of there, the river runs right beside a steep wooded bluff. This bluff, known as Eagle Point, and the city park, which occupies the high ground on its top, cut off further northward expansion of the city.

Because the district lies "around the corner" of the bluff, a visitor is unaware of the existence of the city so close at hand. The bluff dominates the site. Railroad tracks hug the base of the bluff. A roughly triangular, 5-acre lawn extends from the tracks about 300 feet into the river. This esplanade is about 100 feet wide at its southern end. Other than its unusual shape, it is a standard park/service area and access road lock and dam complex component (see Section F, Multiple Property Documentation Form).

North of the esplanade, water is confined by the esplanade, the tracks to the west, a deflecting dike on the north, and two successive guide wall

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extensions of the main lock on the east (see outdraft problems below). This roughly rectangular pool, approximately 2,000 feet by 400 feet, is known as the slough impoundment.

The main lock adjoins the east side of the esplanade. A standard Upper Mississippi River style lock (as defined in Section F, Multiple Property Documentation Form), it has an 11-foot lift. The style 1b central control station (as also defined in Section F of that same form) is the most prominent building in the complex and the only one contributing to its historical character. The central control station sits on the land wall of the main lock. The riverward wall of the main lock is also the landward wall of an incomplete auxiliary lock. This incomplete lock is also a standard feature of Upper Mississippi River 9-Foot Channel Project lock and dam complexes (see Section F, Multiple Property Documentation Form).

The moveable portion of the dam consists of 13, 60-foot-wide by 20-foot-high type 2b Tainter gates (as defined in Section F, Multiple Property Documentation Form, also see below Section 8 in this form) and three, 109-foot-wide by 20-foot-high, 8-foot submersible roller gates (see below Section 8 and Sections E and F, Multiple Property Documentation Form) with four style 2a pier houses (see Section F, Multiple Property Documentation Form). This portion of the dam extends 1,478 feet northeast in a straight line from the riverward wall of the auxiliary lock. A 3,340-foot-long, nonoverflow earth and sand-filled dike curves southeast from the east end of this pier dam to the old Eagle Point Highway Bridge approach levee. The levee constitutes approximately 2,500 feet of the easternmost bank-to-bank structure, extending from the end of the dam to the Wisconsin shore.

The Upper Mississippi River Wildlife and Fish Refuge occupies the complex of islands and sloughs that extend three-quarters of the way across the river from the Wisconsin shore, both upstream and downstream from the dam. This federal ownership along with the river, the bluff, and the city park atop it has preserved the district's integrity of setting and feeling. A visitor is primarily aware of openness bounded by water, the high wooded bluff, and the green islands. The broad expanse of unobstructed sky is also striking.

The district includes both individually undistinguished features and individual distinctive features that serve as focal points. The distinctive focal points are the lock, dam, control station, esplanade, and slough impoundment. All five, plus the auxiliary lock, the guard wall extending upstream from the river wall of the auxiliary lock (see outdraft problems below), the two freestanding control stands on the locks intermediate wall (see Section F, Multiple Property Documentation Form), the two stage recorders (also discussed in Section F of that same form) at the far ends of the main locks upstream and downstream land wall extensions, the individual components which create the slough impoundment, and the bridge approach levee contribute to the historic character of the district.

The relationships among all of these features is unaltered and all possess integrity. Because this complex has not yet received its 50-year major rehabilitation (see Section E, Multiple Property Documentation Form), its lock, dam, and slough components still retain integrity of materials and workmanship. The esplanade's

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integrity of materials and workmanship will not be affected by the rehabilitation. The central control station did undergo a major rehabilitation in 1985. However, this work, done in keeping with the Rock Island District-wide lockhouse rehabilitation project (see Section E, Multiple Property Documentation Form), left it with integrity of location, setting, feeling, and association.

Although the district contains 26 intrusions, none are focal points for the district. Some, such as the new haulage units or new moveable crane on the dam, are simply replacements in kind. Most are very small compared to the focal points. Even the visitors center and the workshop, the two largest new buildings, are unobtrusive because the focal points and the setting so dominate this district. Although noncontributing resources outnumber contributing, the district still conveys the sense of the historic environment.

The general physical relationship of the larger scale resources to each other and to the environment is shown on the accompanying map entitled "Lock and Dam No. 11 Historic District based on April 1, 1987 map by Rock Island District: Sheet 17, Mississippi River, River and Harbor Project, Lock & Dam No. 11" and in accompanying photo number 1 entitled "Aerial photo of Lock and Dam No. 11." The physical relationship of the smaller resources (including the buildings) to each other and to the environment, the road plan, and open spaces, is shown on the accompanying map entitled "Detail of Iowa end of the Lock and Dam No. 11 Historic District based on April 1, 1987 map by Rock Island District: Sheet 17, Mississippi River, River and Harbor Project, Lock & Dam No. 11."

Relocation Consequences

The Special Board of Engineers who, between May 29, 1929, and February 15, 1930, designed the overall 9 foot channel slackwater navigation system and planned to have this complex built just upstream from the village of Sprecht's Ferry, Iowa. However, in September 1933 the government moved the complex to the north edge of Dubuque (see below Section 8). Naturally, this move necessitated a redesign of the complex. The specifics of this new site forced the engineers to redesign the complex one more time beginning in October 1933.²

The September 1933 plans for the Dubuque site called for locating the land wall of the lock near the Iowa shore. Due to rock outcroppings discovered by the Pennsylvania Drilling Company of Pittsburgh during test borings in October 1933, the Rock Island District engineers moved the lock into the river approximately 28 feet and then revolved the axis of the lock and the dam downstream 2 degrees 11 minutes, pivoting on the lower end of the downstream guide wall. This moved the upper end of the upstream guide wall about 100 feet into the river from its first location. This explains the atypical size and shape of the esplanade.³

This pivoting brought the moveable gate section of the dam even closer to the Eagle Point Bridge than originally planned. In 1940, after the complex was completed, the St. Paul District staff of the hydraulic laboratory at the University of Iowa in Iowa City, Iowa, built a model of the complex as constructed and conducted tests on

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how best to distribute the flows going through the dam gates to minimize damage to the western portion of the Eagle Point Highway Bridge approach dike. The initial 1934-1937 construction project included alterations to the bridge.⁴

Outdraft Problems

As soon as the complex opened for navigation on September 14, 1937, the Corps learned that strong outdrafts made navigation into and out of the upstream end of the lock very difficult. This turned out to be a common problem at the locks in this system (see Section E, Multiple Property Documentation Form). In 1940, as part of a system-wide solution, the Corps added a 500-foot cell foundation guard wall to the riverward wall of the auxiliary lock at Lock and Dam No. 11.⁵

This solution was not enough for the situation at three complexes which still had the worst outdraft problems: Lock Nos. 11, 22, and 24. In 1941, the Corps built approximately 500, 1-foot-long, upper approach flow deflecting dikes extending out from the lockward shore approximately 2,000 feet upstream from the upstream ends of the lock and esplanade at all three of these complexes.⁶

However, the problem was still not solved. In 1942, the Corps decided to try applying knowledge gained from experiences at Lock Nos. 13 and 15 toward the three complexes which still had outdraft problems: Lock Nos. 11, 22, and 24. They built approximately 400, 1-foot-long extensions to the upstream guide walls of these three locks. Here, where the whole structure is founded on sand, the Corps built this first guide wall extension on timber cribbing partially filled with riprap. The concrete of the wall is supported by battered timber pilings driven to refusal. This design eliminated the necessity of building an expensive cofferdam for this addition.⁷

Unfortunately, there was still an outdraft problem at Lock No. 11. In 1947 and 1948, the Corps added 500, 1-foot-long earthen dogleg additions to the upstream guide wall addition it had built in 1942.⁸ With the completion of this structure, not only was the outdraft problem solved insofar as was possible, but the slough impoundment took on its mature form.

The Mature Complex

Once this dogleg addition to the upstream guide wall was completed in 1948, the slough impoundment, as well as the overall complex, arrived at a mature configuration which it maintained with virtually no change for the next 22 years.⁹

When changes began to be made around 1970, they were at first, very minimal and gradual. Then the site staff altered the central control station. Just as the staff at every other 1930-1940 vintage lock and dam in the system had, they (see Section E, Multiple Property Documentation Form) built a frame air-lock vestibule to shelter the office door. This door opened directly to the outside on the building's upstream, north, end.

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At the same time, the Rock Island District began making identical changes at all the lock and dam complexes under its stewardship on the Upper Mississippi (see Section E, Multiple Property Documentation Form). As part of this initiative the Rock Island District installed four boat davits (see Section F, Multiple Property Documentation Form) on the walls of Lock No. 11: three smaller ones on the intermediate wall and one larger one on the land wall. These 1970s units were replaced with new jib cranes (also discussed in Section F) around 1995.¹⁰

In about 1971, the Corps began replacing equipment in-kind throughout the system beginning with the haulage units (see both Sections E and F, Multiple Property Documentation Form). In 1995, in a similar system-wide replacement in-kind, the two 1971 haulage units at Lock No. 11 were removed and two new haulage engines put in their place. At the same time, flat-roofed, open shelters (see Section F in that form) were built over the new haulage units.

Around 1972, site staff at this complex did some more force-account construction. They built two control stand shelters (see Sections E and F, Multiple Property Documentation Form). In 1995, contractors replaced these crude structures with larger brick and glass shelters which serve the same purpose. At most of the locks and dams in the Rock Island District, the 1970s vintage control stand shelters were replaced with new brick and block buildings as part of an installation's overall, 50-year major rehabilitation. The fact that Lock and Dam No. 11 has not yet had the rehabilitation perhaps accounts for that fact the 1990s vintage control stand shelters in this complex do not exactly match either of the two styles typical of new control stand shelters in the Rock Island District (see Section F and photos 33 and 24 in accompanying material, Multiple Property Documentation Form).

In approximately 1975, the Corps had contractors remove the standby generator which dominated the machinery room of the central control station, build a Style 1 emergency generator building (as defined in Section F, Multiple Property Documentation Form), and install a new generator in this building. The construction of this new building along with the simultaneous removal of the lockmaster's and assistant lockmaster's residences from the esplanade, dramatically altered that area. These removals were part of another system-wide initiative (see Section E, Multiple Property Documentation Form).

In 1980, Lock No. 11 got both upstream and downstream traveling mooring keels (see Sections E and F, Multiple Property Documentation Form) installed at the same time. In a more visibly dramatic change that year, the Corps erected a Style 1 workshop (as defined in Section F, Multiple Property Documentation Form) where the shared garage for the two houses had been located. When the lean-to addition was added to the workshop sometime between 1988 and 1998, a new pitched roof replaced the building's original flat roof. The line on this roof is so similar to that on style 2 workshops that, without the before photographs, it would be hard to tell that this was not a Style 2 workshop with an addition.

In 1983, the site staff built eight concrete, metal, and fiberglass covers over the machine pits in the main lock walls. These are very low structures intended to

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shelter the machinery, not human beings. This site crew was not alone in building such machinery housings during the 1980s. The crews at almost every complex in the Rock Island and St. Louis Districts built shelters for their operating machinery (see Section E, Multiple Property Documentation Form). However, only two locks in the Rock Island District still have them: Lock Nos. 11 and 12. As part of the 50-year, major rehabilitation at all the other complexes in the district, replacement of the operating machinery has made operating machinery shelters superfluous so crews have demolished them (also described in Section E).

In 1983-4, in another system-wide initiative, the Corps replaced the 30 ton vertical lift electric crane boom on the top of Dam No. 11. Similarly in 1984, the Corps had contractors install new light posts and light fixtures around Lock No. 11 (see Section E, Multiple Property Documentation Form, for information on both of these changes common to a number of the historic districts eligible under the context detailed in that form).

That same year, a hip-roofed scooter shed was built just south of the remodeled central control station (see Section F, Multiple Property Documentation Form).¹¹

In 1987-88, the lockward portion of the esplanade was further altered with the construction of a two story brick visitors center, apparently designed especially for this site. Unlike many of the new buildings in the Upper Mississippi River 9-Foot Navigation Project lock and dam historic districts, this building is not a standardized unit.¹²

In 1995, in a return to standardization (see Section E, Multiple Property Documentation Form), the district got a new incoming power transformer.¹³

Contributing Resources with date completed or placed in operation and keyed to photographs

Building

Central Control Station	1935	PHOTO 6 in this form and PHOTOS 4 and 5 in Multiple Property Documentation Form
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Structures

Lock	1935	PHOTOS 2 and 6 in this form
Auxiliary Lock	1935	PHOTO 1 in this form and PHOTO 12 in Multiple Property Documentation Form
Dam	1937	PHOTO 3 in this form
Eagle Point Bridge Approach		
Levee	1937 ¹⁴	PHOTO 1 in this form
Guard Wall	1940	PHOTOS 13 and 14 in Multiple Property Documentation Form
Deflecting Dike	1941	PHOTO 4 in this form
First Upstream Guide Wall		
Extension	1942	PHOTO 4 in this form
Second Upstream Guide Wall		
Extension	1948	PHOTO 4 in this form

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Objects

2 Intermediate Wall Control Stands	1935	PHOTO 18 in Multiple Property Documentation Form
2 Stage Recorders	1935	PHOTO 19 in Multiple Property Documentation Form

Noncontributing Resources with date completed or placed in operation and keyed to photographs

Buildings

Emergency Generator Bldg.	c.1975	PHOTOS 25 and 26 in Multiple Property Documentation Form
Workshop	1981	PHOTO 5 in this form and PHOTO 28 in Multiple Property Documentation Form
Scooter Shed	c.1985	PHOTO 6 in this form
Visitors Center	1988	PHOTO 6 in this form
2 Land Wall Control Stand Shelters	c.1995	PHOTO 7 in this form
2 Haulage Unit Shelters	c.1995	PHOTO 21 in Multiple Property Documentation Form

Structures

4 Lock Valve Operating Machinery Shelters	1983	PHOTO 8 in this form
4 Lock Gate Operating Machinery Shelters	1983	PHOTO 9 in this form
Moveable Crane on Dam	1984	PHOTO 24 in Multiple Property Documentation Form

Objects

2 Traveling Mooring Kevels	1980	PHOTO 22 in Multiple Property Documentation Form
2 Haulage Units	c.1995	PHOTO 20 in Multiple Property Documentation Form
4 Jib Cranes	c.1995	PHOTO 23 in Multiple Property Documentation Form
Incoming Power Transformer	c.1995	not pictured

SECTION 7 NOTES

1. Current condition ratings are in accord with definitions supplied by Ann Swallow, Illinois Historic Preservation Agency National Register Coordinator, on Aug. 19, 1992. By these definitions, good means almost all original architectural details are apparently intact and major elements (foundations, walls, windows, and roof) are in repair, but some original details are missing and major elements require some work but no stabilization. Although the lock chamber walls need resurfacing, they are not structurally deteriorated. The concrete wall surface is a sacrificial finish, much like paint on a wall of a building.

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2. U.S. Congress, House, *Survey of Mississippi River Between the Mouth of the Missouri River and Minneapolis*, H. Doc. 137, 72nd Cong., 1 sess., 1932 (hereinafter cited as H. Doc. 137); and U.S. Army Corps of Engineers, Rock Island District, "Mississippi River Lock and Dam No. 11, Final Report Construction," Vol. I: "Introduction, Lock, Roadway, and Temporary Buildings" (Nov. 1938), (hereinafter cited as "Final Report-Lock 11"), pp. 2-4, Record Group 77 (hereinafter cited as RG77), Entry 81, Box 667, National Archives and Record Center, Chicago, IL (hereinafter cited as NACB).

3. R.A. Wheeler to Div. Engineer, Oct. 5, 1933, RG77, Entry 111, Box 974, file 3408, Washington National Records Center, Suitland MD (hereinafter cited as WNRC); R.A. Wheeler to Div. Engineer, Jan. 16, 1934, RG77, Entry 111, file 3524-part 1, WNRC; and "Final Report-Lock 11", pp. 6 and 91.

4. "Laboratory Test on Hydraulic Model of Lock and Dam No. 11, Mississippi River, Dubuque, Iowa, by St. Paul District Engineer sub office, Hydraulic Laboratory, University of Iowa, Iowa City, Iowa: Hydraulic Report No. 40, April 1940," RG77, entry 111, box 178, envelope 7245; U.S. Army Corps of Engineers, "Drawings: Upper Mississippi River Lock and Dam 9-Foot Channel Project" (hereinafter referred to as Drawings), number M-L 11 10/48A; and U.S. Army Corps of Engineers, Rock Island District, "Mississippi River Lock and Dam No. 11, Final Report Construction," Vol. III: "Eagle Point Bridge Alterations" (May, 1938).

5. U.S. Army Corps of Engineers, *Annual Report of the Chief of Engineers United States Army, to the Secretary of War for the year 1940*, (Washington, D.C. Government Printing Office, 1940), (The government has printed the *Annual Report of the Chief of Engineers* and bound it as a separate volume every year since 1867. Published at the end of the fiscal year, the exact title and format have varied slightly from time to time. Hereinafter, all reports from this series will be referred to as *Annual Report* followed by the fiscal year which the report covers.), p. 1160.

6. *Annual Report, 1942*, p. 1025.

7. Interoffice memo April 27, 1942, RG77, Entry 111, Box 975, file 3524, WNRC; *Annual Report, 1942*, p. 1028; *Annual Report, 1951*, p. 1237; and Rathbun Associates, "Upper Mississippi River 9-Foot Channel Project Locks and Dams 11-22, An Inventory for the U.S. Army Corps of Engineers, Rock Island District" (Historic American Engineering Record Documentation, Lakewood, CO: Rocky Mountain Regional Office, National Park Service, 1988), (hereinafter cited as HAER), p. 74.

8. *Annual Report, 1947*, p. 1400; and *Annual Report, 1948*, p. 1563.

9. Arturo Ayala, Lockmaster (retired) of Lock and Dam No. 11, interviewed by Mary Rathbun, June 25, 1984, (hereinafter referred to as Ayala Interview) and Wayne Currier, Lockmaster of Lock and Dam No. 11, interviewed by Mary Rathbun, June 25, 1984, (hereinafter referred to as Currier Interview, June 25, 1984), tapes and notes for both interviews in permanent files, Environmental Impact Section, Planning Division, Rock Island District, U.S. Army Corps of Engineers, Rock Island, IL. Ayala

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had been on the crew which constructed this lock and dam and remained on its staff until his retirement from government service. Currier had come to work at the complex under Ayala's command and then succeeded him as lockmaster. Consequently, the two men, but most particularly Ayala, gave first hand accounts of events spanning 50 years. The information in this paragraph and that on the pre-1984 period in the following seven paragraphs is drawn from these interviews unless otherwise noted.

10. *Ibid* for the 1970s and Keith Wenst, Equipment Mechanic at Lock and Dam No. 11, interviewed by Mary Rathbun, Feb. 2, 1998. Notes archived at American Resources Group, Ltd., Carbondale, IL. (hereinafter referred to as Wenst interview) for the 1990s. This pattern is true for subsequent paragraphs referring to both decades unless otherwise noted.

11. Currier Interviews 1988.

12. *Ibid*.

13. Wenst Interview.

14. Although the bridge to which this levee served as the approach predated 1937 the levee did not begin to function as a part of the bank to bank structure which is significant to the historic context detailed in the multiple property documentation form under which this district is being nominated until 1937. Therefore, the structure's significance dates from 1937. The survey work underlying this nomination and that multiple property documentation form did not include research on the Eagle Point Bridge. Consequently, more exact information on the bridge is not available at this time.

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8. Statement of Significance
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Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.)

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or a grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions)

- Transportation** _____
- Engineering** _____
- Maritime History** _____
- Social History** _____
- Commerce** _____
- Conservation** _____
- Politics/Government** _____
- Military** _____
- Economics** _____

Period of Significance **1934-1948** _____

Significant Dates **1937** _____
1935-1937 _____

Significant Person (Complete if Criterion B is marked above)
N/A _____

Cultural Affiliation **N/A** _____

Architect/Builder U.S. Army Corps of Eng., R. I. Dist.
Abbott, Edwin E.

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Architect/Builder

McCormick, Herbert G.
Reeves, James
Franzen, Edwin
Ashton, Frank W.
Turner, W. A.
Warner Const. Co., Chicago IL
Maxon Const. Co., Inc., Dayton OH
Sterling Electric Co., Minneapolis
Elia Alexoff, Davenport IA
J.P. Hurley Const. Co., Dubuque IA
Chicago Fence & Equip. Co., IL
Lakeside Bridge & Steel Co., WI
Henry Knudson & Co., Chicago IL
Dubuque Electric Const. Co.
Mullen Bros. & Co., Dubuque IA
Geisler Bros., Dubuque IA
Merrill Chapman, Dubuque IA
Max Mueller, Dubuque IA
Drake Marble Co., St. Paul MN
R.C. Mahon Co., Detroit MI
E.C. Schroeder, McGregor IA
Iowa Machine Works & Foundry, Clinton
Murray Iron Works Co., Burlington IA¹

Statement of Significance

The Lock and Dam No. 11 Historic District is nationally significant under Criterion A in the areas of transportation, maritime history, commerce, conservation, military, economics, politics, and social history because it is part of the Upper Mississippi River 9-foot navigation system. It is also nationally significant under Criterion A in the areas of economics, military, politics/government, and social history because its history clearly exemplifies the role the Upper Mississippi River 9-Foot Channel Project had in the 1933-1940 national relief work effort and the effect that status had on the construction work. The Lock and Dam No. 11 Historic District also has national significance under Criterion C in the area of engineering because the dam includes both the first truss-framed submersible elliptical Tainter gates and the first 100, 9-foot-long, 8-foot submersible roller gates employed in the project as well as innovations in gate operating machinery and emergency bulkheads. The dam is also one of the first two representations of the mature configuration of combination roller-Tainter gate dams in the Upper Mississippi River 9-Foot Navigation Project.

For a detailed discussion of the Upper Mississippi River 9-foot navigation system's significance in transportation, maritime, engineering, commerce, conservation, military, economics, politics, and social history, see Section E, Multiple Property Documentation Form. Because one of the major purposes of a Multiple Property Submission is to avoid needless repetition of information and keep the individual registration forms for related significant properties briefer than they would be if

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the resources were being nominated individually, only those aspects of these stories which are entirely specific to this historic district are included here.

The Period of Significance for the Lock and Dam No. 11 Historic District begins on January 31, 1934, when Warner Construction of Chicago, Illinois, signed a contract with the Rock Island District of the Corps of Engineers for the construction of the lock and central control station. Warner began actual work on February 5, 1934, completing both within 18 months, by August 22, 1935.² The Period of Significance ends in 1948-50 years ago--the recommended closing date for Periods of Significance where activities began to historically have continued importance and no more specific date can be defined to end the historic period. The post-1948 commerce and transportation activities of the Lock and Dam No. 11 Historic District do not meet Criterion Consideration G. The district's significance in conservation, military, politics/government, economics, maritime, social history, and engineering falls within the 1934-1948 Period of Significance.

Significance in Transportation, Maritime History, Commerce, Conservation, Military, Economics, Politics, and Social History

The Rock Island District of the U.S. Army Corps of Engineers placed this complex in operation as a unit of the Upper Mississippi River 9-foot navigation system on September 14, 1937 (hence Significant Date No. 1). It was the twelfth of the 1931-1940 Upper Mississippi River 9-Foot Navigation Project complexes and the fifth in the Rock Island District to go on line.³

Significance in Economics, Military, Politics/Government and Social History

The Special Board of Engineers which, between May 29, 1929, and February 15, 1930, designed the overall 9-foot channel slackwater navigation system, planned to have this complex built just upstream from the village of Sprech's Ferry, Iowa, beginning in 1935 or 1936. In September 1933, however, during the nadir of the Great Depression and only 4 months after the Corps began reorganizing its administration of the overall project in order to facilitate the employment of the greatest number of people, the government moved the complex to the north edge of Dubuque. The acute unemployment in the Dubuque area led the Rock Island District to begin construction almost immediately, even though the complex was no more necessary to serve existing commerce at its new location than it had been at its original.

During the peak of construction, 901 people were employed building this complex. It was because of the district's public employment significance that President Franklin Roosevelt observed the construction of the lock from Eagle Point City Park atop the Iowa side bluff during his 1934 tour of the Upper Mississippi River 9-Foot Navigation Project.⁴

Significance in Engineering

The moveable portion of the dam is what gives the Lock and Dam No. 11 Historic District significance under Criterion C in engineering. Maxon Construction Company

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of Dayton, Ohio, began building the dam on October 10, 1935, and completed it just over 19 months later on May 16, 1937 (hence Significant Date No. 2).⁵

The Rock Island District designed the moveable portions of Dam Nos. 11 and 18 concurrently. Edwin E. Abbott signed the contract drawings for Dam No. 11 in July 1935 and those for Dam No. 18 in May 1935. These two dams were the first in the Rock Island District to employ Type 2b Tainter gates, that is, submersible, elliptical Tainter gates.⁶

However, the submersible, elliptical Tainter gates at Dam No. 11 are an advance over those at Dam No. 18. Manufacturers found the new, elliptical-shaped gates used at Dam No. 18 to be difficult and expensive to build. The truss framing required the distortion of certain angle connections. So, in the 2 months between the time the Tainter gates for Dam No. 18 went out for bid and the time Tainter gates for Dam No. 11 went out for bid, the district's designers revised the framing, substituting a girder frame for a truss frame. The Corps only finalized the revised design for this type Tainter gate on September 4, 1935—a mere 22 days before it awarded the contract for the construction of Dam No. 11 to Maxon Construction Company. Dam No. 11 was the first representation of this more sophisticated, elliptical Tainter gate design.⁷

Dam Nos. 11 and 18 were also the first two dams in the Rock Island District to utilize submersible roller gates. The three roller gates in the center of the moveable section of each dam submerge 8 feet. Submersible roller gates were the most significant innovation in roller gate design to emerge from the 9-Foot Channel Project. By the time that the Rock Island District engineers completed their designs for these two dams, the St. Paul District already had two dams, including submersible roller gates, virtually completed (Dam Nos. 4 and 5 which include, respectively, five and six submergible rollers). Two more were completely designed (Dam Nos. 5A and 6 which have five submergible rollers each), and two others (Dam Nos. 7 and 8, each also including five submergible rollers) at a parallel point in the design process as Dams Nos. 11 and 18. The gates in all six of the St. Paul District's dams were, however, significantly shorter (60 feet for Dam Nos. 4 and 5 and 80 feet for the other four) than those used in these two Rock Island District dams (approximately 100 feet) and were only submerged to depths of 3 to 5 feet. Moreover, and perhaps more significantly, Dam Nos. 11 and 18 were the first representations of the mature configuration of combination roller and Tainter gate dams. Dam Nos. 11 and 18 proved to the engineers involved that three 100-foot-long roller gates in the thread of the stream were all that were necessary to pass ice, drift, and flood water. Never again did the Corps design a combination roller-Tainter dam with the roller gates in any other position within the moveable portion of the dam.⁸

For detailed descriptions of these two types of gates, see Section F, Multiple Property Documentation Form.

As these two dams were being constructed, the Corps continued to improve the operating machinery for these two new types of gates. It was not until January 1937 that the designers decided to change to heavier gears with increased diametral pitch in the Tainter gate operating machinery. In April 1937, the Corps arranged for the

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R.W. Kaltenbach Corporation of Bedford, Ohio, to furnish and deliver new jack shaft gears and drive shaft pinions for the Tainter gate operating machinery. In June, after both dams were essentially complete, the Iowa Machine Works and Foundry of Clinton, Iowa, and the Murray Iron Works Company of Burlington, Iowa, actually replaced these parts on all 13 Tainter gates in each dam. Because these changes were made prior to the dams going on line as parts of the Upper Mississippi navigation system, they are design innovations added late in the construction project, not alterations to completed structures. Like the new kinds of gates used at these dams, this refined operating machinery reflects the engineering significance of these specific dams.⁹

Similarly, project designers continued to refine auxiliary parts of the gate systems as Dam Nos. 11 and 18 were being constructed. Corps employees had been using the emergency bulkheads for the roller gates at Dam No. 15 for over a year and a half by the time Maxon Construction began building Dam No. 11. The Corps had learned that considerable silt accumulated inside the Dam No. 15 bulkheads, which increased their weight and made them more expensive to clean. Therefore, Rock Island District engineers modified the design by adding end guide and reaction rollers, buffer blocks, molded rubber end seals, more efficient curb plate splices, a better pickup device, and projecting angles in the bulkhead recesses against which the end seal bears. The engineers improved the Tainter gate emergency bulkheads and replaced the welded units with riveted units as well. This reduced both cost and the hazards defective welding presented. The new Tainter gate bulkhead units were also stiffer and more stable. The Rock Island District first used these modified roller gate and Tainter gate bulkheads at Dam Nos. 11 and 18. Soon they became the standard units used in the rest of the district's dams.¹⁰

SECTION 8 NOTES

1. "Final Report-Lock 11" pp.24-25 and 82-82; U.S. Army Corps of Engineers, Rock Island District, "Mississippi River Lock and Dam No. 11, Final Report- Construction," Vol. II: "Dam", (hereinafter cited as "Final Report-Dam 11") pp. 2 and 4; U.S. Army Corps of Engineers, Rock Island District, "Mississippi River Lock and Dam No. 11, Final Report Construction," Vol. IV:"Power, Control and Lighting System" (July 1940), pp. 2-3, RG77, Entry 81, Box 667, NACB; C.W. Ball to Contract Section OCE, Jan. 5, 1942, RG77, Entry 111, Box 694, WNRC; and E.E. Gesler to R.W. Kaltenbach Corp., April 16, 1937, (hereinafter cited as Gesler to Kaltenbach) and E.E. Gelsler to Div. Engineer June 26, 1937, (hereinafter cited as Gesler to Div. Eng.) RG77, Entry 111, Box 975, file 3524, WNRC.
2. *Final Report-Lock 11*, pp. 6 and 91; *Annual Report*, 1934, p.791; and *Annual Report*, 1936, p. 888.
3. "Lock & Dam No. 11, HAER No. IA-23," in HAER, p.18; and *Annual Report*, 1938, p. 1049.
4. Ayala Interview.

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5. "Final Report-Dam 11", p. 16.

6. Drawings; "Lock & Dam No. 11, HAER No. IA-23," in HAER, p. 17 and "Final Report-Dam 11", pp. 10 and 52-53.

7. William Patrick O'Brien, Mary Yeater Rathbun, and Patrick O'Bannon, *Gateways to Commerce: The U.S. Army Corps of Engineers' 9-Foot Channel Project on the Upper Mississippi River* (Denver: National Park Service, Rocky Mountain Region, 1992), (hereinafter cited as *Gateways to Commerce*), p.77.

8. E.L. Daley, "Canalization of the Upper Mississippi," *Civil Engineering* 6(1936), 106; Malcolm Elliot, "The Upper Mississippi River Project With a Discussion of the Moveable Gates in the Dams," paper presented at the Western Society of Engineers, Chicago, Nov. 1, 1937, p.3; and *Gateways to Commerce*, p. 76.

9. E.E. Gesler to Chief of Engineers, Jan. 13, 1937, RG77, entry 111, box 975, file 3524, WNRC; Gesler to Kaltenbach and Gesler to Div. Eng.

10. *Gateways to Commerce*, p. 81; "Final Report-Dam 11," p. 51 & 56; and Drawings, Nos. M-L 58/1, 58/1A, 58/1A.1, & 58/1A.2, and M-L 18 58/2A.

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Lock and Dam #11
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Wisconsin SHPO comments:

Lock & Dam #11 is eligible under criterion C in the area of engineering. That case is well made in the nomination form and supported by a well developed historic context.

The nomination form claims nine different areas of significance, but does not provide a context or make a cogent argument for most of them. The statements of significance provided on page 8-11 demonstrate function, not significance. For example, the fact that the Army Corps placed the complex in operation in 1937 as the twelfth complex completed does not in any way document that the complex is significant in Transportation, Maritime History, Commerce, Conservation, Military, Economics, Politics, and Social History. All this demonstrates is that the complex was in existence. To develop a case for each, the nomination should provide a historic context for that area of significance and then explain how the Lock & Dam 11 played a significant role in that history. It is recommended that these areas of significance be deleted and the significance be based on engineering alone.

Claims for a national level of significance are also unsupported. While the nine-foot channel project was important to the country, there is nothing in the text that demonstrates why this particular nominated resource should be nationally significant in and of itself. If this case is to be made, Lock & Dam 11 must be compared to other resources that are of national importance in the same area of significance, but there is no comparison to other locks, dams, or navigation systems. A finding of state level of significance would be acceptable with this level of documentation, but if a case is to be made for national significance, more work is necessary.

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9. Major Bibliographical References
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(The books, articles, and other sources used in preparing this form are printed on the following two continuation sheets.)

Previous documentation on file (NPS)

- preliminary determination of individual listing (36 CFR 67) has been requested.
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # IA-23

Primary Location of Additional Data

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository: USACE, Rock Island District

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10. Geographical Data
=====

Acreage of Property _____

UTM References (Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing	Zone	Easting	Northing
1	___	_____	_____	3	___	_____
2	___	_____	_____	4	___	_____
	___	See continuation sheet.				

Verbal Boundary Description and Boundary Justification printed on the same continuation sheet.

=====
11. Form Prepared By
=====

name/title Mary Yeater Rathbun, Principal Historian

organization Rathbun Associates date June 1998

street & number 1792 Sandy Rock Road telephone 608-967-2144

city or town Hollandale state WI zip code 53544

=====
Additional Documentation
=====

3 maps and 9 black and white photographs all printed on the following ___ continuation sheets.

=====
Property Owner
=====

name U.S. Government-Rock Island District, Army Corps of Engineers

street & number Clock Tower Building telephone 309-794-5185

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Selected Bibliography

Because one of the purposes of a Multiple Property Submission is to reduce the amount of documentation on each property, only those sources which are entirely specific to this historic district are included here. If a listing seems incomplete or there is no reference here for a source cited in the endnotes in this form, please check Section I: Major Bibliographic References of the Multiple Property Documentation Form for a complete reference.

Interviews

Ayala, Arturo. Lockmaster (retired) of Lock and Dam No. 11, interviewed by Mary Rathbun, June 25, 1984. Tape and notes in permanent files, Environmental Impact Section, Planning Division, Rock Island District, U.S. Army Corps of Engineers, Rock Island, IL.

Currier, Wayne. Lockmaster of Lock and Dam No. 11, interviewed by Mary Rathbun, June 25, 1984. Tape and notes in permanent files, Environmental Impact Section, Planning Division, Rock Island District, U.S. Army Corps of Engineers, Rock Island, IL.

—. Telephone interviews by Mary Rathbun, January 25, 27, and February 2, 1988. Notes in long-term cold storage, Rathbun Associates, Hollandale, WI.

Ernst, Leonard. Lockmaster of Lock and Dam No. 11, telephone interviews by Mary Rathbun, February 23 and April 12, 1998. Notes archived at American Resources Group, Ltd., Carbondale, IL.

Wenste, Keith. Equipment Mechanic at Lock and Dam No. 11, interviewed by Mary Rathbun, February 2, 1998. Notes archived at American Resources Group, Ltd., Carbondale, IL.

Drawings

The alpha numeric designation appearing on the drawings related to Lock and Dam No. 11 is M-L 11, followed by a drawing specific number.

Photographs

U.S. Army Corps of Engineers, Rock Island District, Lock and Dam No. 11, Dubuque, IA. Photographic Collection.

Reports

Rathbun Associates. "Lock and Dam Complex 11" in "Historical-Architectural and Engineering Study: Locks and Dams 11-22, 9-Foot Navigation Project, Mississippi River," Vol. 1, pp. III-1 to III-6 and figures III-1 to III-12 and III-19 (1985). Environmental Impact Section, Planning Division, U.S. Army Corps of Engineers, Rock Island, IL.

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—. "Lock & Dam No. 11, HAER No. IA-23" in "Upper Mississippi River 9-Foot Channel Project Locks and Dams 11-22, An Inventory for the U.S. Army Corps of Engineers, Rock Island District," 24 data pages, 25 exterior photos, four interior photos, one photographic copy of aerial photograph, four photographic copies of photographs (1934-1941) and 16 copies of original construction drawings. Historic American Engineering Record Documentation (HAER). Lakewood, CO: Rocky Mountain Regional Office, National Park Service, 1988.

U.S. Army Corps of Engineers, Rock Island District. "Mississippi River Lock and Dam No. 11, Final Report Construction," Vol.I: "Introduction, Lock, Roadway, and Temporary Buildings" (Nov. 1938). Record Group 77, Entry 81, Box 667, National Archives and Record Center, Chicago, IL.

—. "Mississippi River Lock and Dam No. 11, Final Report Construction," Vol. II: "Dam." Record Group 77, Entry 81, Box 667, National Archives and Records Center, Chicago, IL.

—. "Mississippi River Lock and Dam No. 11, Final Report Construction," Vol. III: "Eagle Point Bridge Alterations" (May 1938). Record Group 77, Entry 81, Box 667, National Archives and Records Center, Chicago, IL.

—. "Mississippi River Lock and Dam No. 11, Final Report Construction," Vol. IV: "Power, Control and Lighting System" (July 1940) Record Group 77, Entry 81, Box 667, National Archives and Record Center, Chicago, IL.

Articles

"May Build River Lock Opposite City of Dubuque." *Dubuque Journal*, Sept. 28, 1933.

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Verbal Boundary Description

The boundary of the Lock and Dam No. 11 Historic District is shown as the solid gray line on the accompanying map entitled "Lock and Dam No. 11 Historic District based on April 1, 1987 map by Rock Island District: Sheet 17, Mississippi River, River and Harbor Project, Lock & Dam No. 11." The Lock and Dam No. 11 Historic District consists of approximately 114.24 acres.

Vertex points noted on Map 1 correspond to the following UTM coordinate information from Zone 15. 1- N4712820 E692970, 2- N4712460 E693310, 3- N4712480 E694170, 4- N4712740 E694600, 5- N4712800 E694920, 6- N4712690 E694960, 7- N4712620 E694620, 8- N4712280 E694100, 9- N4712340 E693960, 10- N4712320 E693830, 11- N4712140 E693440, 12- N4711870 E693520, 13- N4711820 E693440, 14- N4712330 E693170, 15- N4712670 E692820.

Boundary Justification

The district's boundaries encompass all extant resources from its Period of Significance except the western portion of the old Eagle Point Bridge approach levee and its ancillary, attached, manufactured landforms that create O'Leary's Lake. O'Leary's Lake has nothing to do with the functioning of the lock and dam and was created by the Corps in 1940 to protect the western portion of the pre-1935 bridge approach levee from adverse impacts due to operation of the moveable portion of the dam.

Although the entire bridge approach levee is now under Corps management as part of the lock and dam complex, only the eastern portion—the portion that forms the easternmost approximately 2,500 feet of the bank-to-bank structure—is essential to the dam's function of creating an upper, slackwater, navigation pool. The entire levee has lost its integrity as a bridge approach levee. Without the bridge that it served, the approach levee can no longer convey that historic identity. However, the eastern portion of the approach levee retains its integrity as an integral and essential part of the bank-to-bank structure—as a dam. Although this is the secondary purpose of the structure—a purpose added on after it was built—it is the levee's primary purpose in relation to the lock and dam historic district.

The wishbone-shaped earth projection extending north from the nonoverflow dike portion of the dam may also be manmade. It was in place by February 1940, but no records of its construction have been uncovered in the research for this or its two predecessor projects (1984 and 1988). It may also be the remains of an island. The rest of the island may now be below the surface of the water in the upper pool. The basic reason for not including this feature in the district is that there is no evidence that it belongs to the dam and, if it is not manmade, cannot be listed anyway.

The district's western boundary follows the Corps property line. The district's northern and southern boundaries are irregular to exclude acres of river which do not directly contribute to the property's significance, and are also ineligible for listing because they are not manmade. By not extending the western boundary far

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enough south to include the full 1,545-foot length of the access road, no adjacent development (except the distant highway bridge) is visible from within the district. The narrow strip of government controlled land surrounding the southernmost few feet of the access road and the portion of the roadway south of the upstream guide wall of the lock do not directly contribute to the significance of the property.

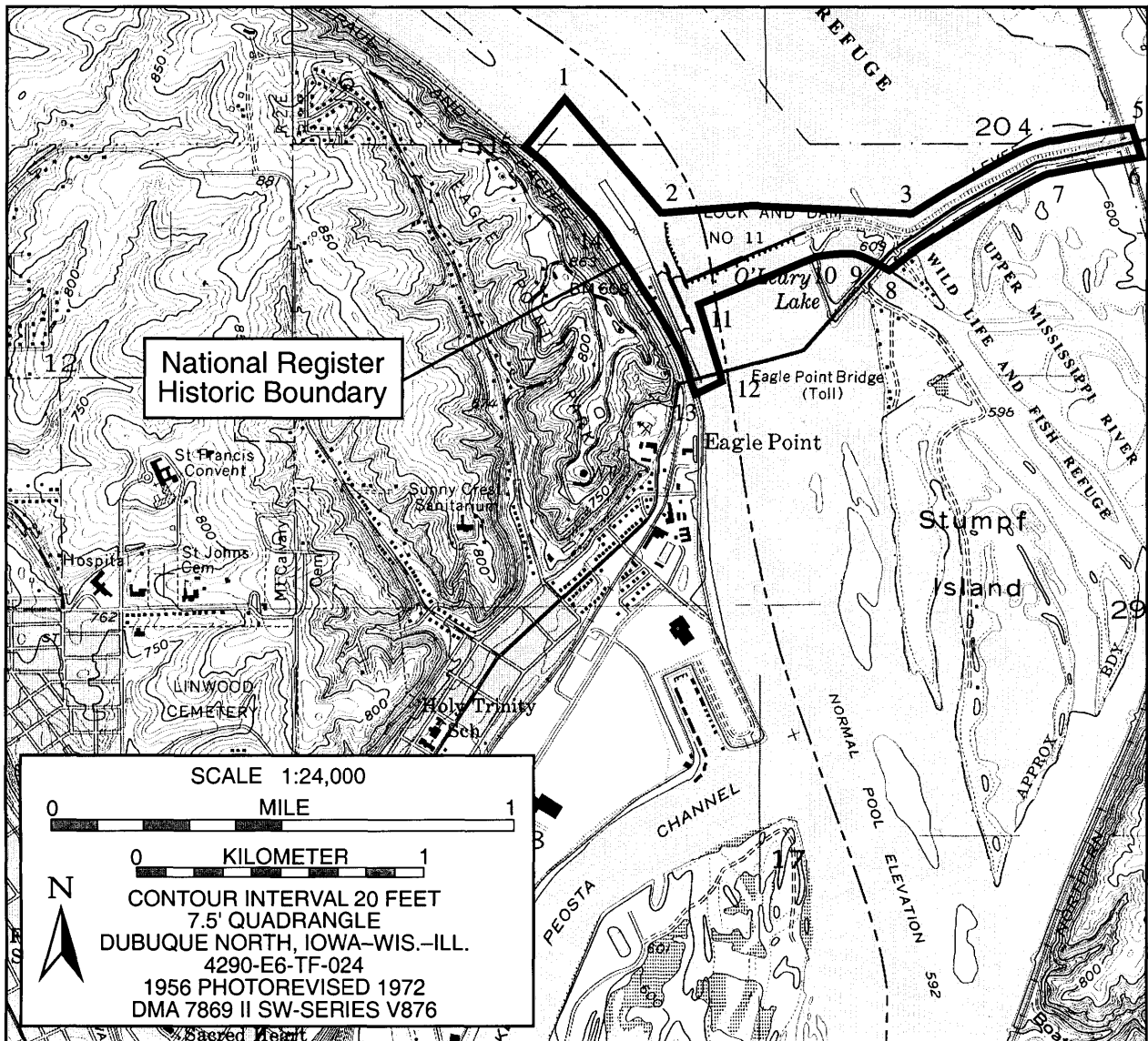
Once the southern boundary reaches the old Eagle Point approach levee at the southeast corner of O'Leary Lake, it follows the Corps property line on the north side of the road which gives access to the private properties on Stumpf Island and on the island on which the approach levee and station dam section meet. The Chicago, Burlington & Quincy Railroad tracks form the eastern boundary of the district.

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MAP 1. Lock and Dam No. 11 Historic District Boundaries Superimposed on Dubuque North, Iowa/Illinois 7.5' USGS Quadrangle Map.

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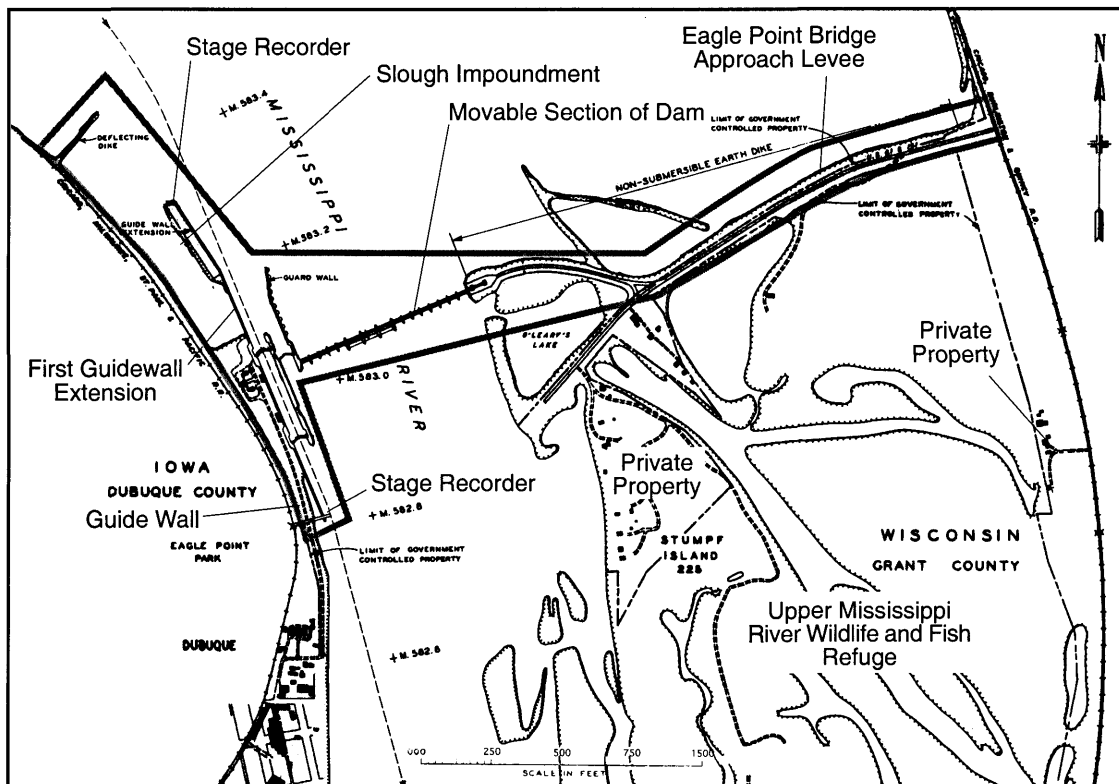
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MAP 2. Lock and Dam No. 11 Historic District Based on April 1, 1987, Map by Rock Island District: Sheet 17, Mississippi River, River and Harbor Project, Lock & Dam No. 11.

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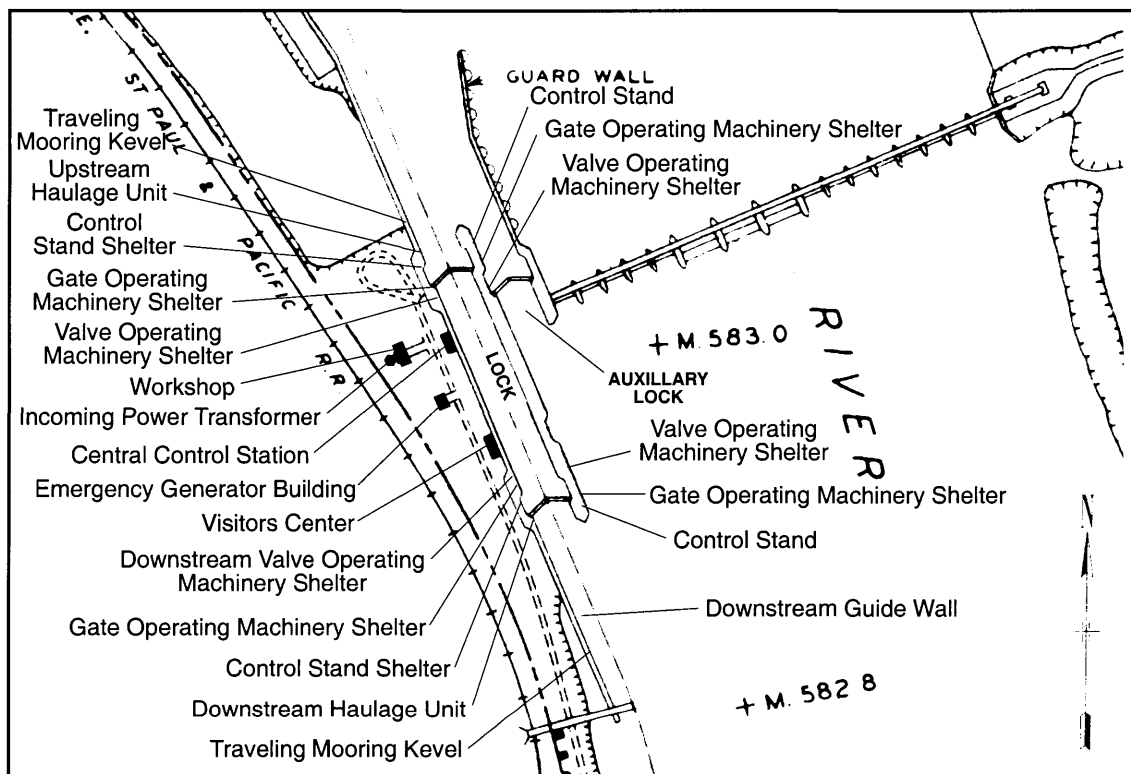
Dubuque County, IA

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MAP 3. Detail of Iowa End of the Lock and Dam No. 11 Historic District Based on April 1, 1987, Map by Rock Island District: Sheet 17, Mississippi River, River and Harbor Project, Lock & Dam No. 11.

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Lock and Dam No. 11 Historic District
11 Lime Street
DUBUQUE, Dubuque County, IA.

The above information is identical for each photo listed below. Some of the photographs were taken in 1998, some in 1997, and some in 1987. As discussed in Section H of the Multiple Property Documentation Form in 1998, new 35mm photos were taken of all resources that had changed substantially or been added to each district since 1987. Therefore, the 1987 photos are only of resources that have not changed substantially since 1987.

There are several reasons why the 1987 large format photos are used. These 1987 photos are of resources that have not changed visibly at the scale needed to show the whole resource, or most of it, in one image. That scale is also the one which shows the essential physical characteristics necessary for that resource to contribute to the historic character of the district (see Section F, Multiple Property Documentation Form). The level of detail in prints from high quality large format negatives is worth the age, especially for resources which change so little over time.

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PHOTO 1. Aerial Photo of Lock and Dam No. 11.

Photographer:

?

Date of Photograph:

?

Location of Original Negative:

Survey Branch, Rock Island District, U.S.
Army Corps of Engineers, Rock Island, IL.

View:

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PHOTO 2. General View of Lock, Downstream Side.

Photographer:	Peter A. Rathbun
Date of Photograph:	September 1987
Location of Original Negative:	IA-23-3, HAER, IOWA, 31, DUBU,11- HAER Collection, Prints and Photographs Division, Library of Congress, Washington, D.C.
View:	From downstream guide wall of lock, looking north

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PHOTO 3. General View of Dam, Downstream Side.

Photographer:
Date of Photograph:
Location of Original Negative:

Peter A. Rathbun
September 1987
IA-23-2, HAER, IOWA, 31-DUBU,11-
HAER Collection, Prints and
Photographs Division, Library of
Congress, Washington, D.C.
From downstream guide wall of lock,
looking northeast

View:

United States Department of the Interior
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PHOTO 4. Upstream Guide Wall Extensions, Deflecting Dike, and Slough Impoundment.

Photographer:

Peter A. Rathbun

Date of Photograph:

September 1987

Location of Original Negative:

IA-23-21, HAER, IOWA, 31-DUBU,11- HAER
Collection, Prints and Photographs
Division, Library of Congress,
Washington, D.C.

View:

From dam, looking northwest

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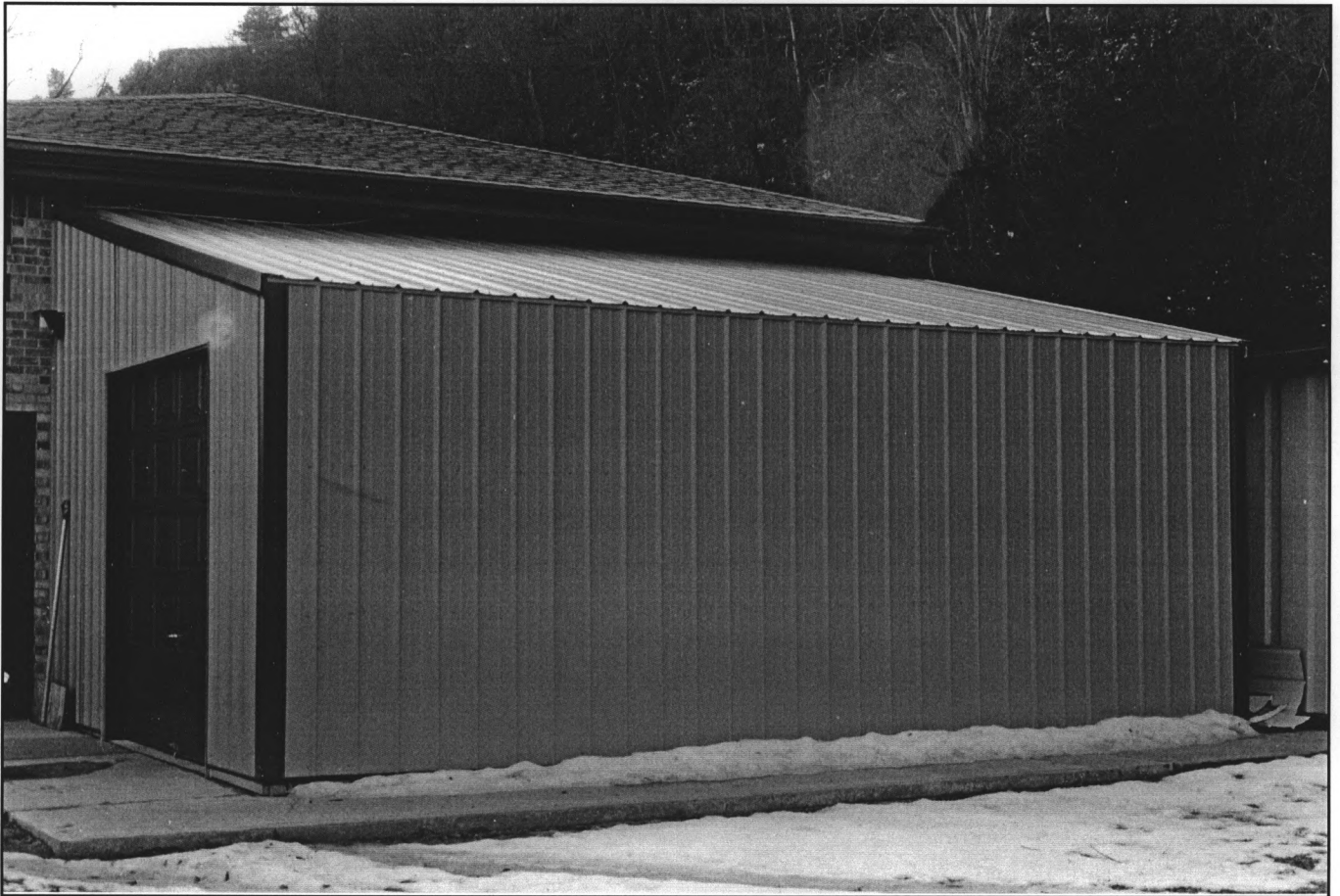


PHOTO 5. Lean-to Addition to Workshop.
Photographer:
Date of Photograph:
Location of Original Negative:

Mary Yeater Rathbun
February 1998
UMR-NATIONAL REGISTER, roll #1, frame
1 Environmental Impact Section,
Planning Division, Rock Island
District, U.S. Army Corps of Engineers,
Rock Island, IL.
From driveway, looking south

View:

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Lock and Dam No. 11 Historic District

name of property
Dubuque County, IA

Section PHOTOS Page 28

county and state

Upper Mississippi River 9-Foot Navigation Project, 1931-1948

name of multiple property listing



PHOTO 6. Lock Chamber in Foreground, Visitor Center at Left, Scooter Shed, Central Control Station, Upstream Face of Downstream Lock Gates at Right.

Photographer:
Date of Photograph:
Location of Original Negative:

Peter A. Rathbun
September 1987
IA-23-50, HAER, IOWA, 31-DUBU,11- HAER
Collection, Prints and Photographs
Division, Library of Congress,
Washington, D.C.

View:

From intermediate wall, looking southwest

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Lock and Dam No. 11 Historic District
name of property
Dubuque County, IA
county and state
Upper Mississippi River 9-Foot Navigation Project, 1931-1948
name of multiple property listing

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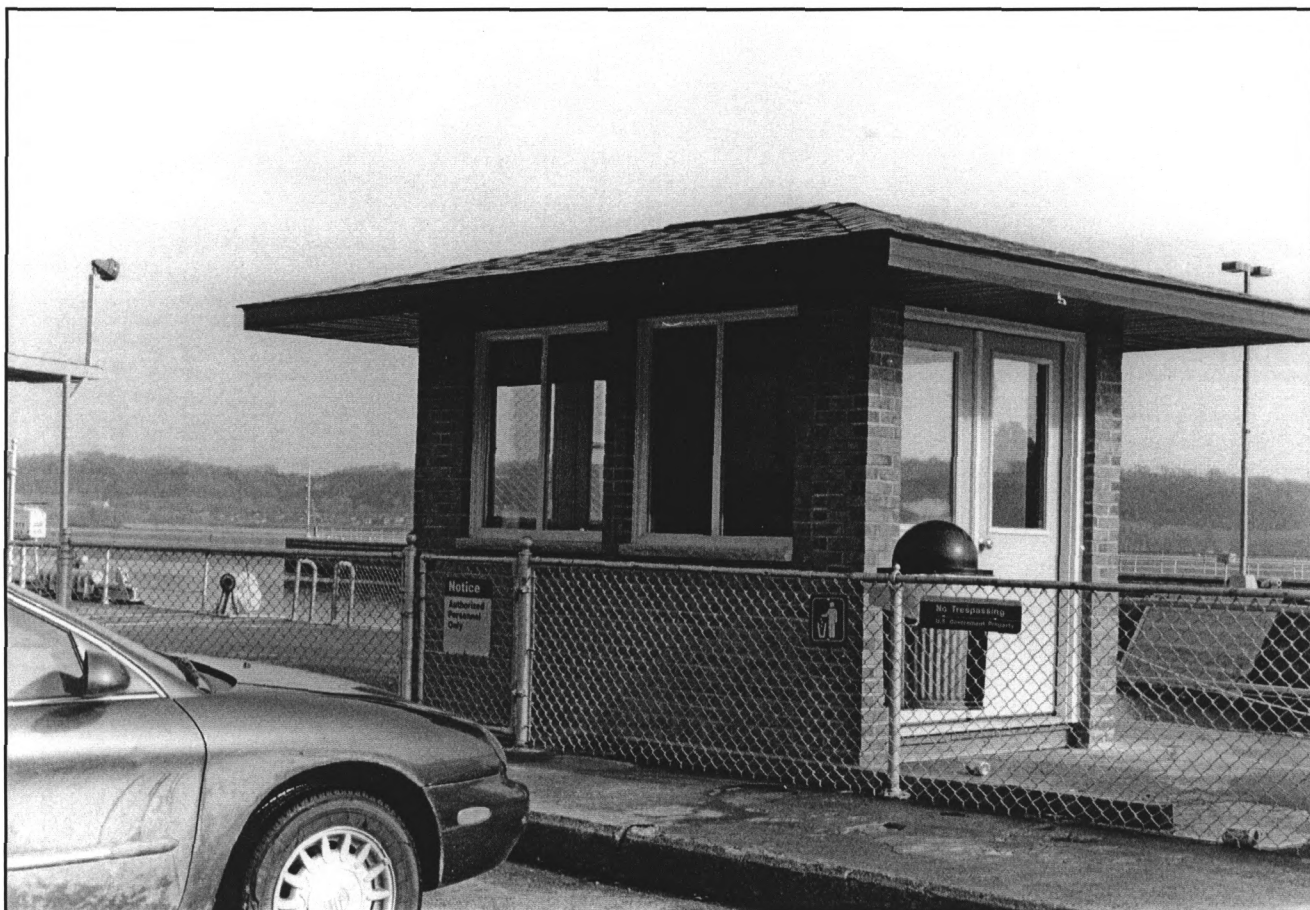


PHOTO 7. Upstream Land Wall Control Stand Shelter. The downstream land wall control stand shelter is identical to this one and its placement mirrors this one relative to the downstream lock gates. These differ from the standard 1990s Rock Island District Style (see PHOTO 34, Multiple Property Documentation Form) in that they have wider roof overhangs.

Photographer:

Mary Yeater Rathbun

Date of Photograph:

February 1998

Location of Original Negative:

UMR-NATIONAL REGISTER, roll #5
, frame 26, Environmental Impact
Section, Planning Division, Rock
Island District, U.S. Army Corps
of Engineers, Rock Island, IL.
From driveway, looking northeast

View:

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section PHOTOS Page 30

Lock and Dam No. 11 Historic District
name of property
Dubuque County, IA
county and state
Upper Mississippi River 9-Foot Navigation Project, 1931-1948
name of multiple property listing

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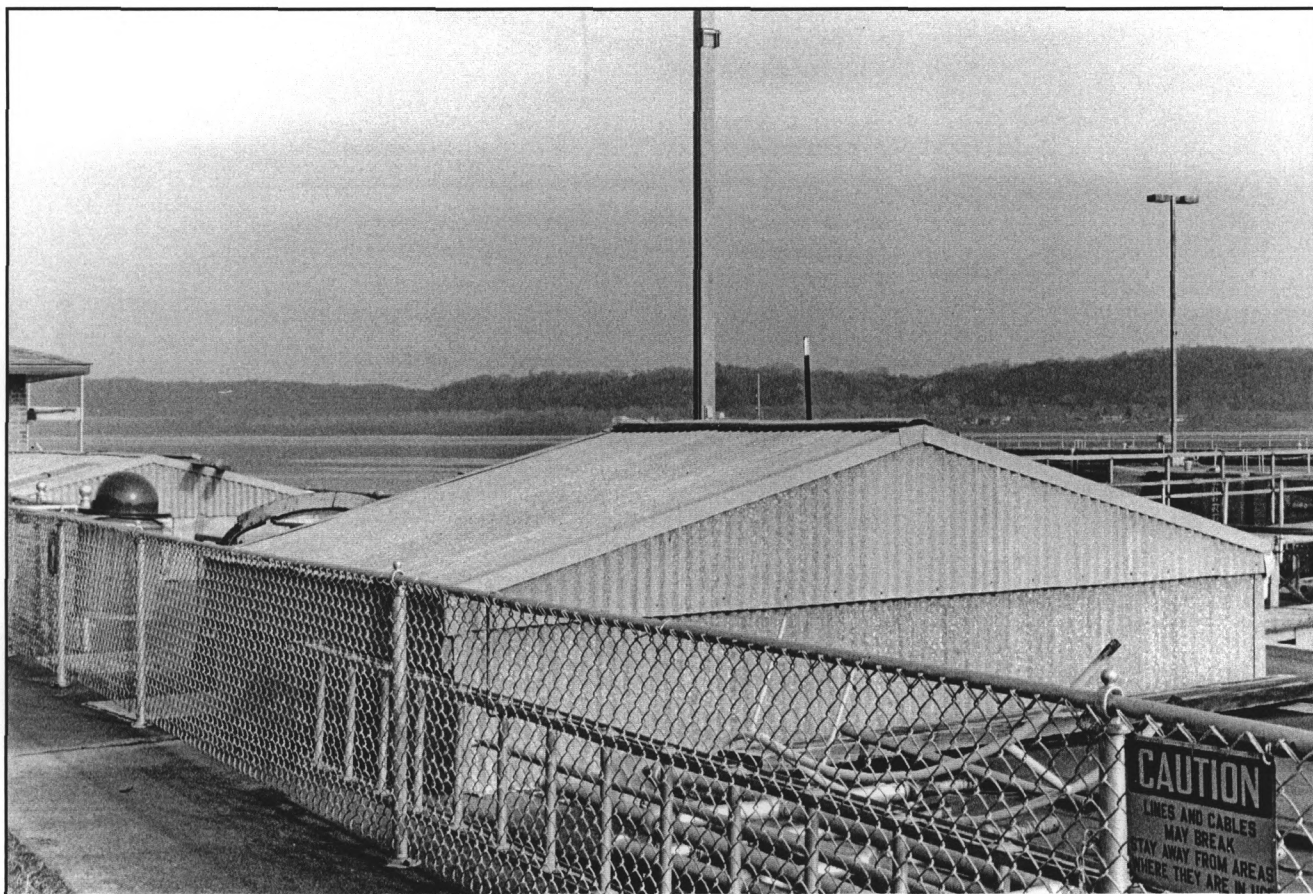


PHOTO 8. Upstream Land Wall Valve Operating Machinery Shelter. Note relative height of this shelter compared to the control stand shelter. Machinery itself is in a pit in the lock wall. Structure intended to shelter the machinery, not human shelter. There are three other identical structures, one in the lock wall near each corner of the lock chamber.

Photographer: Mary Yeater Rathbun
Date of Photograph: February 1998
Location of Original Negative: UMR-NATIONAL REGISTER, roll #5, frame 27, Environmental Impact Section, Planning Division, Rock Island District, U.S. Army Corps of Engineers, Rock Island, IL.
View: From driveway, looking north

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
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Lock and Dam No. 11 Historic District
name of property
Dubuque County, IA
county and state
Upper Mississippi River 9-Foot Navigation Project, 1931-1948
name of multiple property listing

Section PHOTOS Page 31

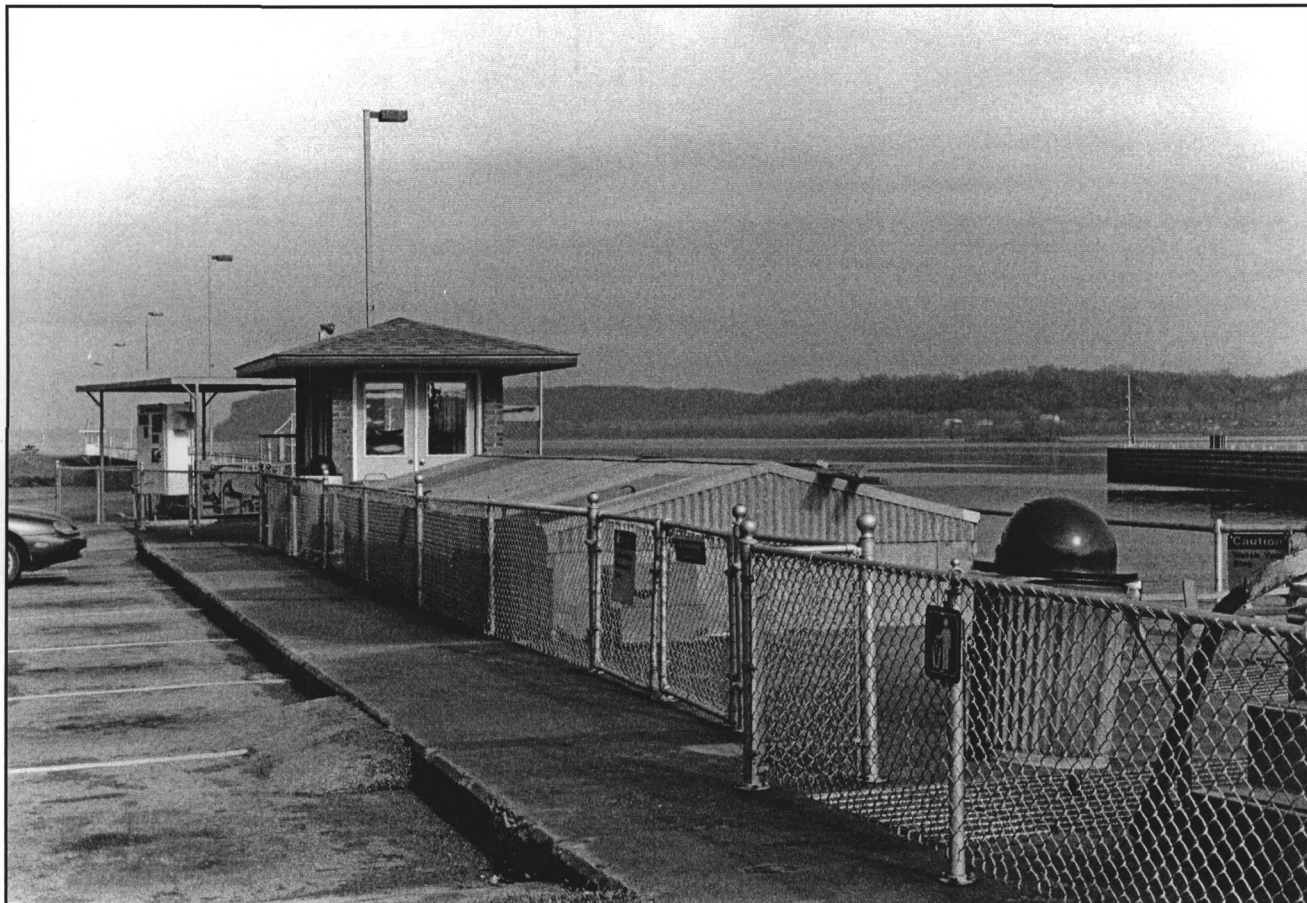


PHOTO 9. Upstream Land Wall Gate Operating Machinery Shelter. Note relative height of this shelter compared to the control stand shelter. Machinery itself is in a pit in the lock wall. Structure intended to shelter the machinery, not human shelter. There are three other identical structures, one in the lock wall near each gate it operates. These shelters sit between the relevant valve operating shelter and the control stand shelter on the land wall.

Photographer: Mary Yeater Rathbun
 Date of Photograph: February 1998
 Location of Original Negative: UMR-NATIONAL REGISTER, roll #5, frame 27, Environmental Impact Section, Planning Division, Rock Island District, U.S. Army Corps of Engineers, Rock Island, IL.

View: From driveway, looking north