

NPS Form 10-900
(Expires 5/31/2012)
Wisconsin Word Processing Format (Approved 1/92)



OMB No. 10024-0018

**United States Department of Interior
National Park Service**

**National Register of Historic Places
Registration Form**

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900A). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Beloit Power Plant
other names/site number Blackhawk Generating Station; Beloit Water, Gas and Electric Company

2. Location

street & number 850 Pleasant Street N/A not for publication
city or town Beloit N/A vicinity
state Wisconsin code WI county Rock code 105 zip code 53511

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, 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.)

Dana J. Teubert
Signature of certifying official/Title

6/14/2017
Date

State Historic Preservation Office - Wisconsin
State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria.
(See continuation sheet for additional comments.)

Signature of commenting official/Title Date

State or Federal agency and bureau

Beloit Power Plant | Rock | Wisconsin
 Name of Property | County and State

4. National Park Service Certification

I hereby certify that the 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.
 ___ See continuation sheet.
 ___ removed from the National Register.
 ___ other, (explain:)

Edson H. Beall _____

[Signature] _____
 Signature of the Keeper

7.31.17 _____
 Date of Action

5. Classification

Ownership of Property (check as many boxes as apply)	Category of Property (Check only one box)	Number of Resources within Property (Do not include previously listed resources in the count)	
		contributing	noncontributing
<input checked="" type="checkbox"/> private	<input checked="" type="checkbox"/> building(s)		
public-local	district	2	0 buildings
public-State	structure	0	0 sites
public-Federal	site	0	1 structures
	object	0	0 objects
		2	1 total

Name of related multiple property listing:
 (Enter "N/A" if property not part of a multiple property listing.)

N/A _____

Number of contributing resources is previously listed in the National Register

0 _____

6. Function or Use

Historic Functions (Enter categories from instructions)	Current Functions (Enter categories from instructions)
INDUSTRY/energy facility	VACANT/Not in use
_____	_____
_____	_____

7. Description

Architectural Classification (Enter categories from instructions)	Materials (Enter categories from instructions)
OTHER/astylestic utilitarian industrial loft	Foundation CONCRETE
OTHER/astylestic utilitarian	walls BRICK
Modern Movement/Modernistic	CONCRETE
_____	roof ASPHALT
_____	other

Narrative Description
 (Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

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

Property is:

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or 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)

Engineering

Period of Significance

1907 – 1949

Significant Dates

ca. 1907, 1913, 1917, 1920, 1925,
1945-46, 1948-49

Significant Person
(Complete if Criterion B is marked)

N/A

Cultural Affiliation

N/A

Architect/Builder

Sargent & Lundy (Blackhawk Generating Plant add.)

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

Beloit Power Plant
Name of Property

Rock
County and State

Wisconsin

9. Major Bibliographic References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous Documentation on File (National Park Service):

- 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 #

Primary location of additional data:

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

Name of repository:

10. Geographical Data

Acreage of Property 3.0 acres

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

1 16 333000 4707800
Zone Easting Northing

2 _____
Zone Easting Northing

3 _____
Zone Easting Northing

4 _____
Zone Easting Northing

See Continuation Sheet

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet)

11. Form Prepared By

name/title	Elizabeth L. Miller, Historic Preservation Consultant, for	date	December 15, 2016
organization	Jonathan Beck, The Alexander Company	telephone	608-233-5942
street & number	4033 Tokay Blvd	zip code	53711
city or town	Madison	state	WI

Beloit Power Plant
Name of Property

Rock
County and State

Wisconsin

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

Property Owner

Complete this item at the request of SHPO or FPO.)

name/title	Jill Stevens, Manager of Decommissioning and Environmental Services	date	December 15, 2016
organization	Alliant Energy	telephone	608-458-0446
street & number	4902 N. Biltmore Lane	zip code	53718
city or town	Madison	state	WI

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects, (1024-0018), Washington, DC 20503

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 1

Beloit Power Plant
Beloit, Rock County, Wisconsin

INTRODUCTION

The Beloit Power Plant is located on the east bank of the Rock River in the city of Beloit, Rock County, Wisconsin (figure 1). The property is situated just north of Beloit's traditional downtown, and west of the Beloit College campus. The Beloit Power Plant is composed of two contributing buildings: the Beloit Water, Gas & Electric Company Powerhouse/Blackhawk Generating Station (Powerhouse); and the Crusher House (figure 2, photos 1 and 2). The buildings are flat-roofed, astylistic utilitarian blocks with concrete basements. The Powerhouse is the main building, and was erected in seven stages (figure 3, photo 1). The original section is the northern half of the two-story red brick section, built ca. 1907.¹ This section was expanded southward in 1913, and again in 1917 and in 1920.² It is of load-bearing brick construction, with timber beam and steel truss roofs. The three-story, red brick-finished section is steel frame with a concrete roof, and was appended to the northeast end of the original section in 1925. The section that is finished with cream brick, also known as the Blackhawk Generating Station addition, was built in two phases, the first erected 1945-46, and the second 1948-1949.³ Designed by the Chicago engineering firm, Sargent & Lundy, the Blackhawk Generating Station addition varies in height from three to five stories, and rests on a rusticated raised concrete basement. It is of steel-reinforced concrete construction.

The Crusher House, a diminutive, flat-roofed, astylistic utilitarian building finished with cream brick, stands north of the Powerhouse and was constructed in 1946, as part of the Sargent & Lundy plan (figure 2, photo 2).⁴ The non-contributing structure on the property is the tall, concrete fence that encloses the former coal yard north of the Powerhouse. The Coal Yard Wall (photo 3) appears to have been installed concurrently with the electronic precipitator, a pollution control device designed by Sargent & Lundy and attached to the east façade of the Powerhouse in 1975.⁵

¹ *Map of Beloit, Wisconsin*, (Pelham, New York: Sanborn Publishing Company, 1908).

² *The Book of Beloit*, (Beloit, Wisconsin: The Beloit Daily News, 1936), 201.

³ *The Blackhawk Open Door*, (Beloit, Wisconsin: Wisconsin Power and Light Company, October 1950), 1-3.

⁴ *The Blackhawk Open Door*, 2-3; *Wisconsin Power and Light Company Annual Report: 1946*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1947), 7.

⁵ "Scrubber funnel," *The Beloit Daily News*, January 8, 1975, n.p.; and Inspection Progress Report, Issued to Sargent & Lundy, February 11, 1975, Building Plans Correspondence of the Wisconsin Industrial Commission/Department of Labor and Human Resources (E File), #1821, Wisconsin Historical Society, Madison, Wisconsin.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 2

Beloit Power Plant
Beloit, Rock County, Wisconsin

SETTING

Historically, the setting of the Beloit Power Plant was industrial, and the west bank of the Rock River across from the property remains industrial, occupied by the Beloit Box Board Company, and the extensive plant of the American Aluminum Extrusion Company. Presently, the east bank of the Rock River is redeveloping as a river walk. Riverside Park forms the northern boundary of the Beloit Power Plant, in what was formerly the corridor of the Chicago & NorthWestern Railway. A pedestrian bridge erected on the former railroad bridge runs from the park southwest and across the river. Just beyond, Portland/White Avenue bisects the park and crosses the Rock River. Municipal Well No. 8 stands immediately south of the Powerhouse. South of the well, the river walk winds past the Angel Museum (in the former St. Paul Catholic Church) and post-2000 commercial buildings, and into the downtown. Pleasant Street (Highway 51) runs along the east side of the Beloit Power Plant. The campus of Beloit College extends along the east side of Pleasant Street, on a rise overlooking the Power Plant and the Rock River. The river generally forms the west boundary of the Beloit Power Plant. Just southwest of the Powerhouse is the Wisconsin Power and Light Company Hydroelectric Powerhouse, and the Beloit Rock River Dam, which crosses the river. The hydroelectric powerhouse is a small, astylistic utilitarian building designed by (Daniel H.) Mead and (Charles V.) Seastone and erected in 1928. The Beloit Rock River Dam was originally installed in 1903, and redesigned by Mead and Seastone in 1923.

On site, the Powerhouse is wedged between the Rock River and Pleasant Street, its long axis parallel to the river (figure 2). A sidewalk separates the main building from the street. The Crusher House stands north of the Powerhouse, in the former coal yard. The Coal Yard Wall runs just west of the sidewalk along Pleasant Street, and curves west and then southwest between the north boundary of the property and the south edge of Riverside Park. A spur of the Chicago & NorthWestern Railway ran into the coal yard from the north, until at least ca. 1975, when the Coal Yard Wall was built. A second spur ran along the east façade of the main building, between the building and Pleasant Street, until at least 1962.⁶ A driveway enters the site from Pleasant Street at the south end of the Powerhouse, and leads into a small, black-topped parking area.

⁶ U.S. Geological Survey, Cartographer, *Beloit quadrangle, Wisconsin*, [map], 1:24,000, 7.5 Minute Series, (Washington, D.C.: United States Department of the Interior, USGS, 1962).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 3

Beloit Power Plant
Beloit, Rock County, Wisconsin

DESCRIPTION

The Powerhouse (Powerhouse and Generating Station Addition) - Contributing

The Powerhouse is composed of three principal sections: the two-story, red brick section (south); the three-story, red brick section (east-central); and the large, three-to-five story, cream brick section (north), also known as the Blackhawk Generating Station addition (figure 3). The two-story red brick section is composed of the old boiler room (east) and the old turbine room (west), while the three-story, red brick section is an addition to the old boiler room. These sections possess large, metal, multi-pane industrial sash, some of which hold wire glass, and many of which appear original. Rock-faced stone lintels and sills accent the windows. Since ca. 1960, the old boiler room and the old boiler room addition have been used as storage, while the old turbine room has housed the machine shed and locker room since ca. 1947. The Blackhawk Generating Station addition, designed by Sargent & Lundy, is made up of a tall block (east) that contains the boiler and coal processing systems, and a shorter block (west) that houses the turbines and condensers. A small, one- to two-story water treatment/office suite projects from the west façade of the turbine block. Tall openings filled with glass block, inset with small hopper windows, are regularly distributed on both the boiler and turbine blocks. This window configuration likely dates to 1948, when the second unit of the addition was completed. The tall openings in the first unit, finished in 1946, originally held multi-paned steel industrial sashes. Pairs of smaller, louvered windows are located at the frieze in both units of the addition. The overall footprint of the Powerhouse measures about 345 feet (north-south) by about 145 feet (east-west).

The Powerhouse faces south (photo 4). The south façade dates to 1920.⁷ It is two stories in height, displays brick corbelling and a plain frieze, and is capped by a parapet with a tile coping. Brick pilasters articulate the façade, separating it into five bays. The central bay features a shouldered parapet and is framed with prominent pilasters that raise the full height of the building and are enriched with Craftsman-influenced brick column elaboration. The brick corbelling at the frieze forms a segmental arch. A tall, slender window is centered in the central bay. This metal framed window extends approximately two stories, and is composed of 12 rows of divided lights, each row having four panes of glass. A stone lintel at the top of the window contrasts with the red brick of the wall. The two western bays have no openings, but brick infill at the first story shows where the small, one-story, water treatment room once stood. Erected in 1920, it was likely removed ca. 1947, after the first unit of the Blackhawk Generating Station addition was completed.⁸ The two eastern bays have the only other openings on this wall. In the bay just east of the central bay is a tall narrow metal door at the

⁷ *The Book of Beloit*, 201; *Map of Beloit, Wisconsin*, (Pelham, New York: Sanborn Publishing Company, 1915; and 1926).

⁸ The 1945-46 turbine block has its own water treatment room.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 4

Beloit Power Plant
Beloit, Rock County, Wisconsin

first floor. Technically, this is the main entrance, although most enter through the metal garage door in the easternmost bay. Above the door is a very large, single, rectangular window opening having a stone sill and lintel. The single window is composed of individual panes, four across and six high. In the final, easternmost bay, there is an oversized garage door, installed ca. 1949, when all but one turbine were removed from the old turbine room, following completion of the Blackhawk Generating Station addition. The door is metal and a roll-up type. Above the garage door is another single window which matches the appearance and location of the window next to it.

The north façade of the Powerhouse is dominated by the 1948-49 Blackhawk Generating Station addition (photo 5). The boiler block (east) is generally four stories tall. A narrow, fifth story toward the center housed the coal conveyor (the remains of the exterior conveyor may still be seen, along with a narrow access door). The turbine block (west) is three stories tall. A metal garage door and concrete loading platform may be seen at the base of the turbine block, a configuration that appears original. Evenly spaced on the wall are three, very tall, narrow window openings. Each opening is approximately two stories tall and infilled with glass block. On both blocks, the frieze is embellished in Modernistic fashion, with continuous, recessed courses of brick, creating bands that incorporate the louvered frieze windows and wrap around the building. The parapets are capped with metal and concrete copings. The Modernistic flair is enhanced by the convex profile of the concrete coping, and the rustication on the raised basement.

The east façade (Pleasant Street) illustrates the construction history of the Powerhouse (figure 3). At the north end is the boiler block of the Blackhawk Generating Station addition, six bays wide (photo 6). The northern three bays were built in 1948-49, while the adjacent three bays date to 1945-46. Each bay displays the same window configuration as those on the north façade. The east façade also carries the same Modernistic embellishment. Near the center of the east façade of the Blackhawk Generating Station addition, a round, metal chimney rises to 227 feet above the ground. Attached to the front of this façade, and obscuring much of it, are the twin electronic precipitators, pollution control devices designed by Sargent & Lundy and installed in 1975.⁹ The devices attach to the building at the second and third stories, and are raised on steel beams, some of which rest on the Coal Yard Wall. The precipitators possess low-pitched gable roofs, and are clad with corrugated metal. Metal staircases climb between the precipitators and onto the roof; one metal staircase on either side of the precipitators leads to a metal door in the wall of the boiler block.

The next section on the east façade is the old boiler house addition, constructed in 1925. Brick pilasters and corbelling echo the appearance of the south facade, creating two bays. Each displays two, tall windows, surmounted by smaller windows. The old boiler room, south of the old boiler room addition, is set back (photo 7). A tiny, shed roofed room projects from the third floor on the south face

⁹ “Scrubber funnel”; and Inspection Progress Report.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 5

Beloit Power Plant
Beloit, Rock County, Wisconsin

of the old boiler room addition, one corner resting on a steel beam. This room was added ca. 1927, has a concrete floor, and two small windows.¹⁰ Beneath the room there is a tall. An opening at street level gave delivery access to the basement coal bin, in use from 1925 to ca. 1960.

The southernmost section on the east façade is the old boiler room (photo 7). It is similar in appearance to the south façade, with brick pilasters separating the façade into four bays, each bay embellished with brick corbelling at the frieze. At the first story, two pairs of windows with wire glass are located in each bay; two of the taller windows are located above. One first-story window opening has been filled with brick, but the rest are intact. The old boiler room was built in three stages: the northernmost bay was part of the original building, erected ca. 1907. The old boiler room was expanded southward, one bay at a time, as new boilers were installed, in 1913, 1917, and 1920. The wall of the southernmost bay does not align with the plane of the other bays, but rather, angles westward to accommodate a railroad spur (not extant, present until at least 1962).¹¹

The west façade of the Powerhouse overlooks the Rock River (photo 1). It is composed of the turbine block (north), and the old turbine room (south). The turbine block is nine bays wide. The southern six bays were built in 1945-46, and the northern three bays were constructed in 1948-49. Set back from the parapet, are the upper stories of the boiler block and the round steel chimney. The window configurations and ornamentation on this facade match those found on the north and east façades. At basement level near the center of this addition, the diminutive water treatment room/office suite projects, erected as part of the Blackhawk Generating Station addition. It is flat roofed, finished with cream brick, and displays a raised concrete basement, and regularly-spaced windows. The water treatment room occupies the lower level. A single, metal door opens onto a metal grate walkway that extends across the water treatment room section. The office suite is located on the second floor, and displays replacement, sliding windows.

The west façade of the old turbine room consists of four bays, framed by red brick pilasters, with two windows at each story in each bay. The concrete basement is exposed on this façade. The two northernmost bays are part of the original, ca. 1907 building. The building was extended southward as new turbines were installed. The bay next south was added in 1917, and the southernmost bay dates to 1920.

The interior of the Powerhouse is composed of three major spaces, each largely open, intended for interconnected machinery and allowing ample space to operate and maintain it (figures 4a through 4e). The old boiler room and the old boiler room addition comprise one, open space, with ceilings that are about 30 feet and 40 feet high, respectively. The space displays exposed brick walls, steel framing and

¹⁰ *Map of Beloit, Wisconsin*, (Pelham, New York: Sanborn Publishing Company, 1926; and 1939).

¹¹ U.S. Geological Survey. The spur appears on the 1962 map.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 6

Beloit Power Plant
Beloit, Rock County, Wisconsin

trusses, metal scaffolding, exposed ceilings, and concrete flooring (photos 8 and 9). When the first 25,000-kilowatt turbine came on line in the Blackhawk Generating Station addition in 1947, the boilers were removed from the old boiler room. The large boiler in the old boiler room addition ceased operation ca. 1960, and then was removed.¹² The old boiler room and the old boiler room addition have since been used as storage. A metal staircase near the front door descends to the concrete basement, which is unfinished. Nearby, a metal garage door opens into the old turbine room. On the west all of the old boiler room addition, a sliding metal door gives access to the turbine block.

The interior of the old turbine room is another open space, 30 feet tall, with exposed walls and ceilings, steel framing, and concrete flooring (figure 4c). Most of the mechanical equipment was removed in 1947, although an overhead traveling crane remains. At the south end of this space, a metal staircase leads up to a platform, which holds banks of switch panels (photo 10). Two small, low, flat-roofed rooms have been built into the north half of this space and likely date to 1947 (photo 11). The larger is a machine shed, with metal walls. A metal staircase alongside the machine shed leads down to the concrete basement (unfinished). North of the machine shed is a locker room, with a shower, restroom, and lunch room. It is finished with glazed cream brick.

Most of the turbine and boiler blocks form one, monumental space, open from the basement to the ceiling, 44 feet high in the turbine block, and over 60 feet high in the boiler block. Both blocks display exposed ceilings, exposed brick walls with glazed cream brick wainscoting, and concrete flooring (photo 12). Toward the south end of the turbine block, a metal staircase rises to the main mezzanine (figure 4d). This level features Modernistic metal balustrades and quarry tile flooring (photo 13). The massive turbines are both on the mezzanine. Above is a traveling crane. There is a large atrium between the turbines, with a Modernistic metal balustrade, and metal staircases that descend to the basement (photo 14). West of the turbines is small wing projecting over the river. At the mezzanine, it houses tiny office suite, which incorporates a shower, and toilets. The water treatment room occupies the basement level of the wing. The finishes in the offices appear to date from the 1970s, and include paneling and dropped acoustical tile ceilings. Beneath the mezzanine, there are condensers and concrete foundations for the turbines in the turbine block (photo 15). The boiler block contains banks of switch panels, breakers, coal chutes and scales, furnaces, ash hoppers, boilers, and other mechanical equipment, as well as a small elevator, set in a multi-level network of metal scaffolding, catwalks, and metal grate platforms (photos 16 and 17). Coal entered the system at the top of the boiler block, was carried along the conveyor, distributed to the two immense coal bunkers, and dropped into pulverizers (figure 5a). At basement level, pulverized coal was then transferred into the furnaces of the two, multi-story boilers, generating steam for the turbines (figure 5b). The ashes were piped back to the coal yard

¹² The last turbine and old boiler were still in use as of February 1959. "Wisconsin Power & Light Company Marks Centennial," *The Beloit Daily News*, February 27, 1959, n.p.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 7

Beloit Power Plant
Beloit, Rock County, Wisconsin

and dropped into the 1949 Ash Silo (not extant), a tiny concrete structure that stood in the coal yard at the northwest corner of the turbine block (figure 5a).¹³

Crusher House – Contributing

The Crusher House is a tiny, flat-roofed, astylistic utilitarian building finished with cream brick and set on a raised concrete basement (photo 2). It displays Modernistic embellishment similar to that of the Blackhawk Generating Station addition, with a frieze composed of bands of recessed brick, and a concrete coping with a convex profile. The Crusher House stands north of the Powerhouse in the coal yard, and was erected in 1946 as part of the Sargent & Lundy design. A long, concrete ramp rises to a coal chute in the center of the east façade. A metal, multi-paned window flanks either side of the ramp. The west façade features a central, pair of metal doors, and a single metal door (north, photo 18). A metal, multi-paned window appears to the south. The north and south facades each possess one boarded window. Originally, coal was loaded into the Crusher House, broken up, and delivered to the top of the four-story Junction House by means of an enclosed metal conveyor (figure 6a). The Junction House (not extant) was north of the Crusher House, had a footprint about the same size as the Crusher House, matched it in finishes and details, and was built in 1946.¹⁴ From the Junction House, the crushed coal was transferred to the boiler block on a conveyor that extended across the coal yard and up to the top of the boiler block (figure 5a).

Coal Yard Wall – Non-Contributing

The Coal Yard Wall encloses the coal storage yard north of the Powerhouse, and appears to have been installed concurrently with the electronic precipitators in 1975.¹⁵ The fence is composed of slender, projecting concrete piers, holding concrete pebble-dash panels, and capped with a concrete coping (photo 3). The fence begins beneath the precipitators, where it is about eight feet tall. Steel posts supporting the electronic precipitators rest on top of the fence. North of the precipitators, there is a five-foot break in the fence. After the break, the fence is 12 feet high, and continues north to Riverside Park, and curves west and southwest along the south edge of the park. A broad, metal garage door not far north of the precipitators may have admitted truck loads of coal (photo 19). The railroad spur that entered the coal yard from the north was present until at least ca. 1975, when the Coal Yard Wall was constructed.

¹³ *The Blackhawk Open Door*, 2-3.

¹⁴ *The Blackhawk Open Door*, 2-3; and *Wisconsin Power and Light Company Annual Report: 1946*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1947), 7.

¹⁵ “Scrubber funnel.”

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 7 Page 8

Beloit Power Plant
Beloit, Rock County, Wisconsin

ALTERATIONS and INTEGRITY

The contributing resources of the Beloit Power Plant retain a high degree of integrity to the period of significance, ca. 1907-1949. Exterior alterations to the Powerhouse are limited to the loss of the 1920 water treatment room on the south façade, removed ca. 1947, the bricking in of one window on the east façade of the old boiler room, replacement windows in the office suite on the west façade of the turbine block, glass block installed in the first unit of the Blackhawk Generating Station addition ca. 1948, and the twin, 1975 electronic precipitators hanging on the east façade of the boiler block. Functionally, the water treatment room housed an ancillary use, and it was likely removed after another water treatment facility was installed in the turbine block, ca. 1947. The impact of the bricking in of one window is minimal, as the other industrial windows remain (although some are boarded or have lost panes). The replacement windows in the office suite do not impair integrity because they were installed in the original openings, and are on a secondary façade. The glass block was installed ca. 1948, during the period of significance, making it a part of the history of the building. Further, the original openings have been retained, and could easily be fitted with industrial sash again. The precipitators attach minimally to the brick, with one door from each into the building, an alteration that would be relatively easy to reverse. On the interior, the Powerhouse retains a high degree of integrity to its 1949 appearance, including 1949 machinery. The old turbine room, the old boiler room, and the old boiler room addition retain very good integrity as the layout and configuration they had from 1920-25 until 1949 has been maintained, although the machinery has been removed. The Powerhouse clearly conveys its historical appearance, association, and function, reflecting the engineer's concept of beauty, which was based on function and utility, and is therefore individually eligible for the National Register.

The Crusher House is unaltered. The Ash Silo, the Junction House, and the rail spurs into the coal yard and alongside the Powerhouse have been removed. However, these resources were ancillary to the functioning of the Powerhouse, and in an ancillary space, the coal yard. The Coal Yard Wall does detract from the appearance of the power plant buildings, but its siting at the north end of the property, where it does not obstruct the view of the buildings, reduces its impact. Alterations to the coal yard do not diminish the integrity of the Beloit Power Plant, which continues to reflect its architectural significance.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 1

Beloit Power Plant
Beloit, Rock County, Wisconsin

SUMMARY

The Beloit Power Plant is locally significant under *Criterion C* in the area of Engineering. The Beloit Water, Gas and Electric Company (BWGE) Powerhouse/Blackhawk Generating Station (Powerhouse) represents the transformation of coal-fired power plants from the early- to the mid-twentieth century. Early coal-fired, steam turbine powerhouses possessed the exterior appearance of brick industrial lofts, with machinery fitted into the building in two major, full-height open spaces: the turbine room and the boiler room. The red brick sections of the Powerhouse (the old turbine room, the old boiler room, and the old boiler room addition), erected incrementally between 1907 and 1925, are a good example of the early period of coal-fired power plants, and retain good integrity. Beginning in the early 1940s, function dictated the form of the coal-fired powerhouse. Two rectangular blocks, the turbine block and the taller, boiler block, distinguish mid-century powerhouses. The Blackhawk Generating Station addition, erected 1945-1949, is an excellent and intact representative of this building type. The period of significance in engineering spans the construction dates of the resources that contribute to the Beloit Power Plant, 1907 to 1949.

HISTORICAL CONTEXT: BRIEF HISTORY OF THE CITY OF БЕЛОИТ

The city of Beloit is located at the junction of the Rock River and Turtle Creek. Archaeological remains, including several effigy mounds, suggest that the area was continuously inhabited by First Nations people from the prehistoric era. In the early 1820s, a Ho-Chunk community with about 600 residents sat on the bluff overlooking Turtle Creek. This community was called Turtle Village.¹⁶ French-Canadian trader Joseph Thibault was the first Euro-American to settle in the area. In the early 1830s, he built a cabin in what is currently downtown Beloit. In 1833, the Ho-Chunk ceded much of their traditional lands and Thibault unofficially laid claim to over 6,000 acres, including all of present-day Beloit.¹⁷

In 1836, Vermont native Caleb Blodgett bought Thibault's claim, and he and his extended family became the first permanent residents of European descent in Beloit, which they called New Albany. Blodgett sold one-third of his property to Charles Goodhue in the fall of 1836, and the two immediately built a dam, a sawmill and a race on Turtle Creek. The sawmill was in operation by the following spring. About the same time that Goodhue arrived, Dr. Horace White also passed through. Dr. White had been delegated to select and buy property for the New England Emigrating Company

¹⁶ *The Book of Beloit*, 5.

¹⁷ *The Book of Beloit II: 1836-1986*, (Beloit: Beloit Daily News, 1986), 4.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 2

Beloit Power Plant
Beloit, Rock County, Wisconsin

(hereafter, NEEC).¹⁸

The NEEC was an organization of fourteen men from Colebrook, New Hampshire, including Dr. White, who had pooled their savings in order to buy land in the west for a farming community. In 1837, Dr. White acquired one-third of Blodgett's claim on behalf of the NEEC. NEEC members and their families began arriving shortly thereafter, settling east of the Rock River and north of Turtle Creek. The unofficial Kelsou Survey of this section, delineating a grid street pattern and a New England style public commons (now Horace White Park), was commissioned the same year. When the original plat of Beloit was recorded in 1840, it incorporated most of the Kelsou Survey. Beloit's central business district subsequently developed in the area that was the Kelsou Survey.¹⁹

In the fall of 1838, a committee selected Beloit as the community's permanent name. Apparently an invention, the name was favored because it sounded French.²⁰ Beloit quickly grew into a prosperous community. The first bridge across the Rock River, built in 1840, opened the west bank for development. By 1844, the N. B. Gaston Scale Company, probably Beloit's first factory, was established on the west side in the area that would become the heart of Beloit's industrial section.²¹

In 1846, Beloit incorporated as a village. By that time, it was well established as an agricultural support community for southern Rock County, with two sawmills, two gristmills and two wagon makers. The presence of two foundries, Gaston's scale factory, and a fanning mill factory foreshadowed Beloit's future as an industrial city. The population in 1846 was 1,100. Most were natives of Vermont, New Hampshire, New York or Wisconsin, although Norwegians and French had also settled in the community. Yankee values, which placed a premium on hard work and education, shaped the community and led to the establishment of Beloit College in 1846. The oldest college in the state, it was patterned after Yale University in Connecticut.²²

By 1850, the population of Beloit had reached 2,753, about one-third of whom were foreign born. At that time, there were five hotels, four banks, three flour mills, two foundries, two planning mills, one steam engine factory, one scale factory, one woolen factory, one paper mill and nearly 600 dwellings.²³ With the arrival of the precursor to the Chicago & NorthWestern Railway in 1850, and the predecessor

¹⁸ *The Book of Beloit II: 1836-1986*, 4.

¹⁹ *Handbook of Beloit*, (Beloit: Ingersoll, Clark and Dunlap, 1893), ix.

²⁰ *History of Rock County, Wisconsin*, (Chicago: Western Historical Company, 1879), 612.

²¹ *Handbook of Beloit*, ix; and William Fiske Brown, editor, *Rock County Wisconsin: A New History*, (Chicago: C. F. Cooper and Company, 1908), p. 150.

²² *History of Rock County, Wisconsin*, 617.

²³ *History of Rock County, Wisconsin*, 618.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 3

Beloit Power Plant
Beloit, Rock County, Wisconsin

of the Chicago, Milwaukee & St. Paul Railroad in 1856, the community boomed. Beloit incorporated as a city in 1856. By that year, another paper mill and factories manufacturing grain cradles, barrels, and reapers had joined the city's expanding industrial base. As the 1858 map illustrates, the industrial district concentrated along the Rock River. The Merrill & Company Paper Mill stood on the current site of the Powerhouse, at the east end of a timber-and-stone dam (on the site of the existing Beloit Rock River Dam). The S.N. Peck Sawmill, and the Wright and Newcomb Paper Mill were located at the west end of the dam, on the west bank of the Rock River.²⁴

Beloit's growth slowed between 1860 and 1880, rising from 4,098 to 4,790. The primary industries of this period were agricultural implements manufacturing, and paper milling. Beginning in the 1880s, Beloit experienced a rapid rise in manufacturing, accompanied by a dramatic increase in population as many immigrants were drawn to Beloit to work in the factories. Tool and machine manufacturing, and shoe and clothing production, became important components of Beloit's industrial sector during the late nineteenth century. From 1880 until 1920, Beloit's population increased by one-third each decade, reaching 21,284 in 1920. After the turn of the century, immigrants from southern and eastern Europe settled in Beloit. African-Americans migrating from the southern U.S. also settled in the city.²⁵

Beloit's thriving industrial sector, led by the Fairbanks Morse Engine Company, drove the city's economy and kept the community growing into the 1960s. In 1970, Beloit counted 35,729 residents.²⁶ Although manufacturing has declined, Beloit's population has remained steady since that time. In 2010, the population of Beloit was 36,966.

HISTORICAL CONTEXT: ELECTRICAL UTILITIES IN WISCONSIN AND BELOIT

The Development of Electric Utilities in Wisconsin

Techniques for generating electricity were developed during the late-nineteenth century. Electricity was first employed to provide lighting. In the United States, the first commercial use of electric lighting was at the Wanamaker Department Store in Philadelphia in 1878. In 1879, the first electric street-lighting company in the world was established in San Francisco. In 1882, Wisconsin's first examples of electric lighting were installed, one in the Wisconsin Central Railroad shops at Stevens Point, and the other along a street in downtown Fond du Lac. Both were powered by coal-fired steam

²⁴ *Handbook of Beloit*, ix; and A.B. Miller, *Map of Rock County, Wisconsin*, (Milwaukee: A.B. Miller & Orrin Guernsey, 1858).

²⁵ *The Book of Beloit II: 1836-1986*, 8.

²⁶ Robert C. Nesbit, *Wisconsin: A History*, (Madison: University of Wisconsin Press, 1973), 334-35, and 549.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 4

Beloit Power Plant
Beloit, Rock County, Wisconsin

engines. Early experiments in generating steam-powered electricity in Wisconsin typically took place in factories. In Beloit, this first happened in 1885, when E.J. Adams and Fred Messer, of the Houston-Merrill Iron Works (not extant), installed a dynamo in the plant to power arc lights in the factory, and in a few stores nearby.²⁷

Hydroelectric power, which uses a dam and water-powered turbines to create electricity, was developed as an alternate to the steam-powered method. Early hydroelectric plants typically originated in a grist or sawmill when a dynamo was connected to the water-powered turbine to generate electricity for use in the mill. As a result of Wisconsin's thriving lumber and wood products industry, which possessed great expertise in dam and water-powered technology, Wisconsin became a leader in the construction of small-scale hydroelectric plants. The first commercial hydroelectric power plant in the United States was installed at the Appleton Paper and Pulp Company in Appleton, Wisconsin, in 1882, by Thomas Edison's company. That system used direct current (DC) dynamos, powered by the Fox River, and lighted the plant, as well as the neighboring Vulcan Paper Mill. A wire transmitted electricity one mile to the light the home of Henry Rogers, an executive of the Appleton Paper and Pulp Company, on a bluff overlooking the plant. However, DC current lost power as it was carried along the line and as it was divided among users. This initially limited the usefulness of electricity, because it meant that users had to be close to the power plant, and each needed their own electric line.²⁸

In 1884, Charles A. Parsons, a British engineer, invented a steam turbine, which was more efficient than the steam engine, and made electricity generation more economical. Beginning in the mid-1880s, "central generating station" power plants, which provided electricity to more than one building at a time, were established in a few communities in Wisconsin, such as Green Bay, Stevens Point, Oshkosh, Waupaca, Janesville, Kenosha, and Beloit.²⁹ The Beloit Electric Light & Power Company began operating a coal-fired, steam-powered central generating station (not extant) in 1887. It was located west of the Rock River and adjacent to the passenger depot of the Chicago & NorthWestern Railway, on Roosevelt Avenue west of Third Street.³⁰

²⁷ Forrest McDonald, *Let There Be Light: The Electric Utility Industry in Wisconsin: 1881-1955*, (Madison, Wisconsin: The American History Research Center, 1957), 10-11; and "Wisconsin Power & Light Company Marks Centennial."

²⁸ McDonald, 26; and National Register of Historic Places, "Henry Rogers House," Appleton, Outagamie County, Wisconsin, Reference #74000112, 1974, 4.

²⁹ McDonald, 16-17.

³⁰ *Book of Beloit*, 201; and *Map of Beloit, Wisconsin*, (Pelham, New York: Sanborn Publishing Company, 1890).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 5

Beloit Power Plant
Beloit, Rock County, Wisconsin

By 1892, refinements in the transmission of electricity, notably the invention of the polyphase induction motor, which enabled alternating current (AC) to succeed DC as the industry standard, had made it possible to transmit electricity over long distances without its power diminishing. As historian Forrest McDonald noted, these refinements allowed a power company

to step energy up to high voltages, send it over miles of transmission lines, step it down, and deliver it to consumers anywhere. In short, it made possible modern electric utility systems.³¹

During the 1890s, electric utility companies were organized all over the state. Typically, local investors would form a company to serve their community. The company would open a small central generating station. Often, the company began by using excess electricity generated by the local sawmill or factory, and would serve customers for a few hours each day. Most companies were successful initially, quickly outgrowing their original quarters and erecting their own plant.³²

Electric service expanded rapidly in the early-twentieth century. By 1904, Wisconsin had 140 central generating stations. Thirty (about one-quarter) were hydroelectric, and the remainders were steam powered.³³ Electricity was available around the clock in more than two dozen communities, including Milwaukee, Racine, Kenosha, Madison, and Janesville. The Beloit Electric Company, which had acquired the Beloit Light and Power Company in 1898, retrofitted the former Rock River Paper Company mill with a hydroelectric plant with seven dynamos, as well as a tiny, coal-fired, steam-powered plant producing 150 kilowatts in 1900. The plants (not extant) were located side-by-side on the current site of the Beloit Power Plant.³⁴ By 1904, the Beloit Electric Company had extended transmission lines up to half-a-mile from the plant, and was serving about 200 customers, 24 hours a day, except on Sundays.³⁵

The number of communities in the state with electric service boomed in the next decade, reaching 193 villages and cities by 1907, and 370 in 1917.³⁶ Nineteen companies served the state, seven of them locally owned. The Beloit Water, Gas and Electric Company, which had bought the Beloit Electric Company in 1906, was one of these; its history will be described in the next section.

³¹ McDonald, 26.

³² McDonald, 26.

³³ McDonald, 98.

³⁴ *Map of Beloit, Wisconsin*, (Pelham, New York: Sanborn Publishing Company, 1902).

³⁵ Louise Spicer, "Super Service: Robert Moore, Beloit, Has Spent Twenty-Five Years of Uninterrupted Service in the Electric Industry," *Power & Light News*, 1 (December 1926): 10.

³⁶ McDonald, 99, and 172.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 6

Beloit Power Plant
Beloit, Rock County, Wisconsin

Seventy-five hydroelectric dams had been built in Wisconsin by 1916. The present Beloit Rock River Dam was among them. It was initially constructed for the shareholders of the Beloit Water Power Company (of which BWGE was one) in 1903, on the site of the first dam on the Rock River in Beloit (in place by 1858), and redesigned in 1923.³⁷ The height of construction of hydroelectric power plants fell between 1900 and the late 1920s.³⁸ The existing Wisconsin Power & Light hydroelectric plant adjacent to the Powerhouse, designed by the Madison engineering firm of (Daniel H.) Mead and (Charles V.) Seastone and erected in 1928, dates to this period.³⁹

The construction of hydroelectric plants declined in the late 1920s as a major innovation in coal-fired power generation gained currency: the use of pulverized coal as fuel. Pulverized coal increased efficiency technologically and economically over traditional-sized coal because it needed only one-third to one-quarter of the amount of coal to produce one kilowatt hour of electricity. The Oneida Street plant (NRHP 1984) of the Milwaukee Electric Railway and Light (TMER&L) company was the first generating station in the nation to convert to pulverized coal in 1919.⁴⁰

As technology advanced through the late nineteenth and early-twentieth centuries, it became necessary to invest increasingly larger amounts of capital into equipment and plants. This sparked mergers and consolidations among power companies, a trend that continued through the 1920s.⁴¹ The development of the electric utility in Beloit represents a prime example of this trend.

The Beloit Water, Gas and Electric Company, and the Beloit Power Plant

The Beloit Water, Gas and Electric Company (BWGE) was organized in 1906 through the consolidation of three earlier enterprises: the Beloit Gas Light and Coke Company (established 1859); the Beloit Water Company (1885); and the Beloit Electric Company (1887).

The Beloit Gas Light and Coke Company was organized by a group of local men and incorporated by the Wisconsin legislature on February 13, 1855. The company raised funds through stock

³⁷ Wisconsin Department of Natural Resources, Dam Safety Inspection Records, File 53.02, Beloit Dam/Blackhawk Dam and Hydroelectric Facility.

³⁸ McDonald, 114; *Map of Beloit, Wisconsin*, (Pelham, New York: Sanborn Publishing Company, 1895; and 1902); and *The Book of Beloit*, 201.

³⁹ *Annual Report of the Wisconsin Power and Light Company for Fiscal Year Ending December 31, 1928*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1929), 7; and *Power and Light News*, 3 (February 1928): 17.

⁴⁰ McDonald, 210-211.

⁴¹ McDonald, 99.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 7

Beloit Power Plant
Beloit, Rock County, Wisconsin

subscriptions, but financing the construction of a building and gas mains, and the purchase of equipment, took four years. In 1859, a gas plant (not extant) was erected on Mill Street, and a distribution system laid out. Joseph Hendley was elected treasurer and secretary of the company in 1860, and became superintendent of the plant in 1861. Around 1880, a new plant (not extant) was constructed on Shirland Avenue and Mill Street. Hendley managed that plant until his death in 1899. The Rock River Paper Company, which stood on the site of the present Beloit Power Plant, was the leading customer of the Beloit Gas Light and Coke Company, although most of the gas was used for lighting streets, stores, and homes.⁴²

The Beloit Water Company was established in 1885, and had erected the pumping station at 1005 Pleasant Street (extant, NRHP 1990) and laid seven miles of water mains by the end of that year. An octagonal stone water tower was erected near the pumping station in 1889 to maintain a constant pressure in the water mains. Located at 530 Tower Street, it was listed on the NRHP in 1983. In 1895, a hydroelectric pumping station (not extant) was built on the west bank of the Rock River at 735 Second Street.⁴³

The Beloit City Council granted W.A. Knapp the first franchise to provide electricity in Beloit in January 1887. Knapp, a coal dealer, established a water-powered, combined arc and incandescent system. By 1891, Knapp had wired 140 arc lights and numerous incandescent lights. A second franchise was granted to the Wiley-Warner Electric Company in June 1891. This firm was founded by A.P. Warner, a young entrepreneurial inventor who had built an experimental generator in the late 1880s, and then built electric motors that would efficiently run electric lighting. Warner sold the motors to small factories in the area for several years, and then decided to build a central station. The two companies competed briefly, but Knapp's firm soon went into receivership. Guy L. Cole bought Knapp's company and incorporated as the Beloit Electric Light and Power Company in 1896. The new firm had a capital stock of \$25,000, and opened a steam-powered generating plant (not extant) at Roosevelt Avenue and Third Street. A.P. Warner sold his company and central station to General Electric in 1897. General Electric closed the central station, and sent Warner, whose genius was evident, to the firm's main laboratory in Schenectady, New York, where he would invent the speedometer.⁴⁴

In 1898, A.E. Smith and E.G. Cowdery of Milwaukee, and Guy L. Cole of Beloit, merged the Beloit Electric Light and Power Company with another central station in Beloit, owned by the Taylor Electric

⁴² *The Book of Beloit*, 202.

⁴³ *The Book of Beloit*, 203; and National Register of Historic Places, "City of Beloit Waterworks and Pump Station," Beloit, Rock County, Wisconsin, Reference #900001460, 1990, 8:3.

⁴⁴ McDonald, 78-80.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 8

Beloit Power Plant
Beloit, Rock County, Wisconsin

Light and Power Company (which had been established in 1897), and incorporated as the Beloit Electric Company, with \$100,000 in capital stock and \$75,000 in bonds. In November 1898, the Beloit Electric Company purchased the vacant Rock River Paper Company facilities, the site of the present Beloit Power Plant, and converted the former mill into a central generating station. A new frame wheelhouse with three water wheels was attached to the two-story stone section of the mill, and five dynamos and two engines were installed in the former pulp beating room. One engine produced 150 horsepower, the other generated 75 horsepower. The total capacity was 550 kilowatts. The remaining mill spaces were left vacant, and soon demolished. The former Rock River Company's stone boiler house was also utilized. Over the next several years, the Beloit Electric Company undertook a successful promotional campaign directed at potential residential customers.⁴⁵

The merger that formed BWGE was established in February 1906. E.G. Cowdery was the principal owner. P.S. Briggs and Arthur L. Rich, bankers from Cincinnati, traveled the state selling bonds for the new enterprise. With an air of optimism, *The Beloit Daily News* announced that extensions and improvements to the existing plant would begin in the spring. However, the project hit a snag in late April, when \$100,000 worth of bonds presented by Rich proved to have been forged. The story must have been the talk of the town for months. The newspaper reported that Mr. Briggs confronted Rich in his Cincinnati office, only to be assured by Rich that he (Rich) would soon be vindicated. This did not allay Briggs suspicions, so he followed Rich. When Rich hastened to the railroad station, and boarded a train, Briggs jumped onto the train after him, but Rich had locked himself in a stateroom. By the time Briggs succeeded in getting police to break down the door at a stop farther along the line, the stateroom was empty. Rich had leaped out a window, and was reputed to have escaped to Honduras. Construction on BWGE facilities may have been delayed into 1907 as a result, although BWGE was capitalized at over \$1 million, which should have provided sufficient funds to begin construction. In late June 1906, E.G. Cowdery brought a team of engineers to look over the water, gas and electric facilities and make recommendations, but exact dates of construction have yet to be identified.⁴⁶

By March 1908, BWGE had completed improvements to each of its utilities.⁴⁷ A new brick gas plant had been built at 111 East Shirland Avenue (demolished 1999).⁴⁸ The company had also excavated a well and erected a small, one-story stone pump house on the site of the present Beloit Power Plant,

⁴⁵ *The Book of Beloit*, 201; *Map of Beloit, Wisconsin*, (1895; and 1902); and McDonald, 78-80.

⁴⁶ "Utilities Are Transferred," *The Beloit Daily News*, February 14, 1906, 5; "Urban Road Next in Line," *The Beloit Daily News*, February 15, 1906, 6; "Rich a Forger for \$100,000," *The Beloit Daily News*, April 30, 1906, 1; and "Engineers in Town," *The Beloit Daily News*, June 30, 1906, 5.

⁴⁷ *Map of Beloit, Wisconsin*, (1908).

⁴⁸ Wisconsin Historical Society, Wisconsin Architecture and History Inventory, <http://www.wisahrd.org/index>, (retrieved 28 October 2016).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 9

Beloit Power Plant
Beloit, Rock County, Wisconsin

north of the Powerhouse. This pumphouse (not extant) would remain in use until at least 1926.⁴⁹ Ca. 1907, BWGE built the first red brick sections of the existing Powerhouse (parts of the old boiler room, and the old turbine room). The company installed a 500-kilowatt, vertical Curtis steam turbine in what is presently the old turbine room. As one of the first of the 500-kilowatt Charles Parson-style steam turbine generators in the United States, it attracted many visitors to see it in operation. Steam turbine technology advanced rapidly in the early-twentieth century, and BWGE endeavored to keep pace, adding a 500-kilowatt horizontal unit in 1910. In 1912, BWGE took out a \$3 million mortgage to finance new construction, improvements, and equipment. The Powerhouse was expanded to accommodate a 1,000-kilowatt turbine (1913), followed by a 2,500-kilowatt version (1917), and then a 5,000-kilowatt turbo-generator (1920).⁵⁰ BWGE also operated two, 100-kilowatt hydroelectric dynamos, housed in the old turbine room, from at least 1920 until 1928. The footprint of the old boiler room and the old turbine room in the existing Powerhouse gained their current form in 1920.

The capacity of the boilers was increased with each new turbine. BGWE continued to use the stone boiler house that was formerly part of the Rock River Paper Company until about 1913, adding two 300 horsepower boilers between 1906 and 1910. The stone boiler house was demolished around 1913, and the present old boiler room was expanded northward (expansion not extant). Three, 500-horsepower boilers were installed, one in 1913, another in 1917, and a third in 1919. A water treatment room (not extant, removed ca. 1947) was also constructed at the southwest corner of the Powerhouse in 1920.⁵¹ Additional improvements would wait until WP&L acquired the facility in 1925.

The Wisconsin Power and Light Company and the Beloit Power Plant

The Wisconsin Power and Light Company (WP&L) dates back to the construction of the first large generating plant in Wisconsin, the Kilbourn (Wisconsin Dells) Hydroelectric Plant, built in 1906 for the Southern Wisconsin Power Company, an enterprise established by Magnus Swenson and P.L. Spooner, both of Madison. Swenson organized the Wisconsin River Power Company in 1914, and erected a second large hydroelectric facility at Prairie du Sac. The Middle West Utilities Company acquired both plants in 1917. Samuel G. Insull, a former associate of Thomas Edison, conceived the idea of creating a utility system that would connect the numerous small, existing systems and extend service to communities throughout central Wisconsin. Operating under the name, Wisconsin Power Light & Heat Company, Middle West Utilities Company had absorbed more than 100 smaller utilities

⁴⁹ *The Book of Beloit*, 203; and *Map of Beloit, Wisconsin* (1902; 1908; 1915; and 1926).

⁵⁰ *The Book of Beloit*, 201; and *Beloit Water, Gas and Electric Company to Union Savings Bank & Trust Company, First Mortgage, Securing \$3 Million, For Twenty-Five Years, at 5 Percent, Sinking Fund and Gold Bonds*, (Beloit, Wisconsin: n.p., 1912).

⁵¹ *The Book of Beloit*, 201; and *Map of Beloit, Wisconsin*, (1902; 1908; 1915; and 1926).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 10

Beloit Power Plant
Beloit, Rock County, Wisconsin

in the state by 1924. In April 1924, Wisconsin Power Light & Heat Company merged with the Eastern Wisconsin Power Company, the Mineral Point Public Service Company, the Wisconsin Utilities Company, the Middle Wisconsin Power Company, and the Janesville Electric Company, forming WP&L.⁵²

On July 1, 1925, WP&L acquired BWGE, in addition to BWGE's stock in the Beloit Water Power Company (which still owned the Beloit Rock River Dam). At least two executives associated with BWGE became executives in WP&L. E.G. Cowdery, who had been the principal owner of BWGE, became a vice-president of WP&L, and manager of the Beloit facility. B.F. Lyons, who had been president of BWGE when WP&L acquired it, and associated with the firm since its inception in 1906, became an assistant general manager of the Beloit plant.⁵³ In addition to electric, gas and water utilities in the city of Beloit, BWGE had extended an electric distribution system to several neighboring villages. In 1924, the Beloit facility had a combined capacity of 9,500 kilowatts in steam turbines, and 200 kilowatts in hydroelectric dynamos, and had generated a total of 24 million kilowatt hours to 6,153 customers.⁵⁴

The Beloit Water Power Company had been created by the Wisconsin legislature on April 2, 1853, although the first meeting of the board of directors was not held until September 1855. Stockholders provided funds in proportion to the percentage of shares owned for the erection and maintenance of a dam, and were granted use of the power the dam generated in proportion to the percentage of shares owned. A dam was in place by 1858, in its present location, with the Merrill & Co. Paper Mill on the east bank (the current site of Beloit Power Plant), and the S.N. Peck Sawmill on the west bank (the present location of the Beloit Box Board Company).⁵⁵ The Beloit Water Power Company reorganized in June 1873. That year, the Rock River Paper Company occupied the current site of the Beloit Power Plant, and the Beloit Straw Board Company (a predecessor to Beloit Box Board Company) stood adjacent to the dam on the west bank of the Rock River.⁵⁶ The dam was heavily damaged on

⁵² *The Book of Beloit*, 201-202; George Thacher, *Lines in the Sky*, (Madison, Wisconsin: Wisconsin Power & Light Company, n.d.), 2-4; and Bill Beck, *Transforming the Heartland: The History of Wisconsin Power & Light Company*, (Madison, Wisconsin: Wisconsin Power & Light Company, 1990)

⁵³ *The Book of Beloit*, 201.

⁵⁴ *Annual Report of the Wisconsin Power and Light Company for Fiscal Year Ending December 31, 1925*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1926), 4 and 14.

⁵⁵ A.B. Miller, *Map of Rock County, Wisconsin*, (Milwaukee: A.B. Miller & Orrin Guernsey, 1858).

⁵⁶ Frank Krause, *City Map of Beloit*, (Chicago: Everts, Baskin and Steward, 1873).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 11

Beloit Power Plant
Beloit, Rock County, Wisconsin

November 4, 1881, when a one hundred-foot section of the dam was washed out. The stockholders had the dam rebuilt immediately.⁵⁷

In 1898, BWGE acquired the Rock River Paper Company's 326 shares (out of 800) in the Beloit Water Power Company when it purchased the property of the Rock River Paper Company. In 1903, BWGE may have spearheaded the construction of the present Beloit Rock River Dam (adjacent to the Beloit Power Plant). The dam was redesigned for the Beloit Water Power Company by the Madison engineering firm of (Daniel H.) Mead and (Charles V.) Seastone in 1923, gaining most of its present appearance. When WP&L acquired BWGE in 1925, WP&L became a stockholder in the Beloit Water Power Company. The Beloit Water Power Company continued to own the dam, with WP&L one of several stockholders, until at least 1944.⁵⁸

Between 1925 and 1935, WP&L invested more than \$2.4 in improvements and additions to plants, equipment, and service lines in the city of Beloit. In 1925, WP&L upgraded the Powerhouse by replacing the 1913 boiler room addition with the existing, three-story boiler room addition. A 1,000 horsepower boiler was installed; a second boiler of the same capacity followed in 1929.⁵⁹ In 1925, WP&L also constructed a 66,000-volt transmission line from Beloit to Janesville.⁶⁰ The WP&L hydroelectric powerhouse, adjacent to the Beloit Power Plant, housing a 480-kilowatt generator (still present), was erected in 1928. It was one of the last hydroelectric plants WP&L built; WP&L would supply more power with its hydroelectric plants than with its coal-fired facilities until the completion of the second unit of the Edgewater Generating Station near Sheboygan in 1941.⁶¹

As of 1930, WP&L was providing electricity to cities in Wisconsin in an irregularly-shaped service area in south-central Wisconsin, which generally extended from the Illinois state line north to Wisconsin Rapids, east to Lake Michigan, and west to the Mississippi River. The southeastern corner of the state (Milwaukee, Kenosha, Racine and surroundings) and Madison were not part of WP&L's service area, but there were four cities in the region with a population greater than 10,000: Fond du

⁵⁷ *The Book of Beloit*, 202.

⁵⁸ "Beloit Utility Decision by Railroad Commission of Wisconsin," *Pipeline & Gas Journal*, 95 (September 11, 1911): 162-166; Wisconsin Department of Natural Resources; *The Book of Beloit*, 202; and "Utilities to Pay State \$7,895,111 in Taxes," *Wisconsin State Journal*, September 15, 1944, 5.

⁵⁹ *The Book of Beloit*, 201.

⁶⁰ *Annual Report of the Wisconsin Power and Light Company for Fiscal Year Ending December 31, 1925*, 4.

⁶¹ *Annual Report of the Wisconsin Power and Light Company for Fiscal Year Ending December 31, 1928*, 7; *1950 Annual Report*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1951), 5; and Wisconsin Department of Natural Resources.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 12

Beloit Power Plant
Beloit, Rock County, Wisconsin

Lac, Sheboygan, Janesville, and Beloit. Service would gradually be extended from these cities and out into the countryside. Most of WP&L's territory was agricultural, although there was a concentration of heavy industry in Janesville, led by General Motors, and in Beloit, with firms such as the Fairbanks Morse Engine Company. In 1919, there were 19 power companies in Wisconsin, serving 370 communities and generating 36 million kilowatt-hours of electricity annually. In 1930, WP&L by itself served 302 communities and generated more than 290 million kilowatt-hours a year.⁶²

In 1931, WP&L completed the massive, coal-fired, steam-powered Edgewater Generating Station in Sheboygan, Wisconsin, which produced one kilowatt-hour per pound of coal. Advances in technology had increased the efficiency of the Beloit Powerhouse over time, from 8 pounds of coal needed to produce one kilowatt-hour in 1910, to 2.46 pounds of coal per kilowatt-hour in 1930. However, demand for electricity plummeted during the Depression, as the stock market crash in October 1929 had triggered a decline in industrial production and the closing of hundreds of businesses. WP&L's profits fell precipitously as customers drastically cut back on their electrical use. In response, WP&L reduced the amount of electricity its plants generated by limiting less efficient plants to emergency use only. The Beloit Powerhouse was one of these. Except for such times as the hydroelectric plants could not operate, or the Edgewater Generating Station was shut down for repairs or inspection, the Edgewater plant provided electricity to Beloit.⁶³

In September 1932, WP&L's parent company, Middle West Utilities, went into receivership. The loss of revenue combined with stricter regulations adopted by the Public Service Commission of Wisconsin, the independent agency responsible for regulating public utilities in the state, had taken a toll on the company. Grover Neff was appointed director. His strict cost control measures put WP&L on firmer financial footing, but the company continued to struggle. Neff launched a campaign to increase the use of electricity, traveling the state and taking out newspaper ads encouraging customers to purchase more electrical appliances. He also advocated rural electrification but was unable to secure funding to extend the infrastructure. For WP&L there would be no real financial relief until 1941, when the defense industry increased the demand for electricity in advance of World War II.⁶⁴

In October 1941, the U.S. War Department announced the construction of the Badger Ordnance Plant, located near Baraboo, Wisconsin, not far from WP&L's hydroelectric facility at Prairie du Sac. The Edgewater Generating Station was expanded the same year. The Beloit Powerhouse returned to round the clock operation late in 1941, as manufacturers such as the Fairbanks Morse Engine Company

⁶² McDonald, 99, 172, 177, 182, and 230-31.

⁶³ McDonald, 334; and *The Book of Beloit*, 202.

⁶⁴ "WPL Holdings Company History," <http://www.fundinguniverse.com/company-histories/wpl-holdings-inc-history/>, (retrieved 17 September 2016); and McDonald, 386-87.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 13

Beloit Power Plant
Beloit, Rock County, Wisconsin

began to increase production to support the war effort. WP&L began planning a 20,000 kilowatt coal-fired, steam generating addition to the Powerhouse. However, work on the plans stopped in 1942 and construction was deferred because funding and equipment could not be secured during war time.⁶⁵

In November 1944, the War Production Board approved the construction of an addition to the Powerhouse to house a 25,000-kilowatt steam turbine, estimated to cost nearly \$3 million.⁶⁶ Construction on the first unit of the Blackhawk Generating Station addition began on May 15, 1945 and was completed in 1946. The turbine went on line in January 1947. Ground was broken on the construction of the second 25,000-kilowatt turbine in April 1948, estimated to cost \$3.5 million. When the second unit went into service in 1949, the Beloit Powerhouse became the second largest operated by WP&L; only the Edgewater Generating Plant at Sheboygan had a greater generating capacity.⁶⁷ The final cost of the Blackhawk Generating Station addition was \$7 million. In October 1950, WP&L hosted an open house to show off the completed station, and prepared a newsprint handout, *The Blackhawk Open Door*, to celebrate its completion. The handout provided statistics about the addition's construction and operation. Running at full capacity, the Powerhouse burned 30 tons of coal per hour, the equivalent of one railroad carload of coal every one and one-half hours. The coal yard could store some 48,000 tons of coal, enough to last two and one-half months. The handout also explained that the employees had chosen the name, Black Hawk, to honor the Sauk tribal leader who had tried re-establishing the Sauk and Fox nation in their Rock River Valley homeland in 1832.⁶⁸ More than 6,000 people came to tour the new plant.⁶⁹

The second unit in the Blackhawk Generating Station addition to the Beloit Powerhouse was the first project in a seven-year construction program WP&L initiated in 1947 to address the power needs of the postwar economy. Rural electrification continued to expand, adding new customers every year. Average consumption also grew rapidly, as new farm machinery and home appliances came to market. Initially estimated to cost \$42 million, the budget for the construction program was increased to \$68 million by 1950, due to sky-rocketing demands for service. This figure included funds for new and

⁶⁵ McDonald, 386-87; and *Annual Report, 1942*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1943), 3.

⁶⁶ *Annual Report, 1944*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1945), 10.

⁶⁷ *Annual Report, 1946*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1947), 8-9; *Annual Report, 1947*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1948), 9-10; *Annual Report, 1948*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1949), 5-6; and *1949 Annual Report*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1950), 13.

⁶⁸ *The Blackhawk Open Door*, October 1950, 1 and 3.

⁶⁹ Susan Kasten, "Second Act," *Beloit College Magazine*, spring 2014, http://magazine.beloit.edu/?story_id=24518&issu_id=245012, (retrieved 17 September 2016).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 14

Beloit Power Plant
Beloit, Rock County, Wisconsin

enlarged transmission lines, substations, and distribution systems, as well as the expansion and construction of generating plants.⁷⁰ High voltage transmission and distribution lines were extended throughout the service territory, especially in rural areas. By the end of 1949, WP&L was serving 92 percent of the farms within their territory, making WP&L the state's largest supplier of electricity to farms. By this time, coal-fired plants had surpassed hydroelectric facilities in generating power, producing more than 70 percent of the electricity WP&L supplied. WP&L, which had separated from Middle West Utilities in 1948, was supplying power to nearly one-quarter million customers by 1950.⁷¹

Wisconsin's electrical utilities planned to expand generating capacity by about 565,000 kilowatts between 1951 and 1954. The Wisconsin Electric Power Company (WEPCo), which supplied power to the southeastern part of the state, including Milwaukee, planned to expand its plant at Port Washington, and erect a new one at Oak Creek. Wisconsin Public Service Corporation (WPSCo) intended to expand the J.P. Pulliam plant, serving the city of Green Bay and adjacent counties. WP&L continued its construction program with a 60,000-kilowatt addition to the Edgewater Generating Station, begun in 1950. It was completed in 1951, at a cost of \$9 million. The same year, WP&L selected a site on the Rock River between Beloit and Janesville, for a new coal-fired, steam-generating plant. The Rock River Generating Plant would have two units, with a combined capacity of 120,000 kilowatts, estimated to cost \$24 million.⁷²

Ground was broken on the Rock River Generating Station in January 1951, and the first 75,000-kilowatt generating unit was placed into service in January 1954. The second 75,000-kilowatt unit went into operation in November 1955, concluding WP&L's seven-year construction program and increasing the company's total generating capacity to 382,000 kilowatts, from 129,000 kilowatts in 1945. The Beloit Power Plant accounted for 60,000 kilowatts of the total (in contrast, the adjacent WP&L hydroelectric plant produced 480 kilowatts). WP&L's capacity exceeded peak demands for the first time since the 1920s.⁷³

⁷⁰ "\$42,000,000 Construction Program Now Under Way," *The Blackhawk Open Door*, 1; and *1949 Annual Report*, 10.

⁷¹ *1949 Annual Report*, 12, 14, and 15; *1950 Annual Report*, 5; and "WPL Holdings Company History."

⁷² *1949 Annual Report*, 5; *1950 Annual Report*, 18; *1951 Annual Report*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1952), 6; *Annual Report: 1952*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1953), 11; "News Items," *Utilitarian*, 27, no. 8 (January 1951): 6.

⁷³ *Annual Report: 1954*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1955), 3, and 10; and *Annual Report: 1955*, (Madison, Wisconsin: Wisconsin Power and Light Company, 1956), 7.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 15

Beloit Power Plant
Beloit, Rock County, Wisconsin

From the mid-1950s through the 1970s, WP&L pursued plans to construct nuclear power plants for electricity generation. The Kewaunee Nuclear Power Plant was erected for WP&L, in cooperation with three other power companies, in June 1974. WP&L and its partners hoped to erect a nuclear plant at Lake Koshkong, between Janesville and Fort Atkinson. However, the Wisconsin Department of Natural Resources rejected the license application in 1977. The consortium then proposed a nuclear power plant at Haven, near Sheboygan. The partial nuclear meltdown that occurred at Three Mile Island nuclear plant in Dauphin County, Pennsylvania in March 1979 galvanized public opposition to nuclear power. In 1980, WP&L abandoned efforts to build any more nuclear facilities. The company had begun transitioning its coal-fired plants to natural gas, a cleaner-burning fuel, in the 1960s, as natural gas became more available and economical. Several plants were converted to dual fuel, able to burn either coal or natural gas. The first generator in the Beloit Powerhouse was converted to dual fuel in 1960, and the last one in 1969.⁷⁴ In the 1970s, WP&L added electronic precipitators, pollution control devices, to coal-fired and dual fuel plants. Sargent & Lundy prepared the plans for the electronic precipitators that were installed on the Beloit Powerhouse in 1975.⁷⁵ In 1986, the Beloit Powerhouse was converted entirely to natural gas. Since 1981, WP&L has been a subsidiary of Alliant Energy Corporation, a public utility holding company headquartered in Madison.⁷⁶

As of 1997, WP&L plants in Wisconsin were capable of generating over 2 million kilowatts. The facilities included one nuclear plant, six coal-fired plants, one natural gas (the Beloit Powerhouse), three dual fuel gas/oil, and seven hydro plants. By this time, both the Beloit Powerhouse and the Rock River Generating Plant had become “peaking plants,” operating only at times of peak demand, such as hot summer days. The Beloit Powerhouse generated electricity only during peak demand until September 2005, and closed permanently in April 2010.⁷⁷

⁷⁴ “Natural Gas Conversion is Set By WP&L,” *Beloit Daily News*, no date but ca. 1968, Blackhawk Power Plant file, Beloit Historical Society, Beloit, Wisconsin; and “\$15 million by 1975, WPL Tells Spending on Environmental Aids,” *The Capital Times*, April 23, 1970, 30.

⁷⁵ “Scrubber Funnel”; and Inspection Progress Report.

⁷⁶ “WPL Holdings Company History.”

⁷⁷ “Beloit Power Plant to Shut Down by End of Year,” *Milwaukee Journal-Sentinel*, May 26, 2009, <http://archive.jsonline.com/blogs/business/46127242.html>, (retrieved 17 September 2016); and “Powerhouse of a Project – College Unveils Possible Plans Along the River,” *Beloit Daily News*, May 6, 2014, http://www.beloitdailynews.com/powerhouse_of_a_project_college_unveils_possible/article, (retrieved 17 September 2016).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 16

Beloit Power Plant
Beloit, Rock County, Wisconsin

SIGNIFICANCE: ENGINEERING

The Beloit Power Plant is significant under *Criterion C* in the area of Engineering. The Powerhouse illustrates the evolution of coal-fired power plants from the early- to the mid-twentieth century, and retains very good integrity. The period of significance spans the construction dates of the resources that contribute to the Beloit Power Plant, ca. 1907 to 1949.

The Coal-Fired, Steam Turbine Central Station Generating Plant Building Type

Early coal-fired, steam turbine powerhouses were erected between about 1900 and 1930. Architectural historian Betsy Hunter Bradley notes that electric power-generating facilities of the late nineteenth century were typically located within a factory's industrial loft, and that any extra power supplied could be sold to other, adjacent businesses. Around 1900, free-standing powerhouses began to be built as part of a manufacturing complex, or in an industrial district. These powerhouses generally employed the industrial loft form as well, and were sited on rail lines or waterways to make delivery and storage of coal easy and efficient.⁷⁸

The Wisconsin Architecture History Inventory (AHI) includes 98 resources dating to this period and classified as power plants; 45 are coal-fired plants, and 53 are hydroelectric facilities. A review of the records reveals that most of the coal-fired plants are astylistic utilitarian masonry blocks, finished with brick, with limited ornamentation, and the exterior appearance of the industrial loft form. A few examples of the production shed form are found, and a handful of power plants exhibit a more elaborate exterior, at least on the front façade. The latter are typically architect designed, and located in large urban areas, such as the Oneida Street Plant (NRHP 1984) in Milwaukee, and the Madison Gas & Electric Company Powerhouse (NRHP 2000) in Madison.

Regardless of the exterior appearance, the interior of the early steam powerhouse is composed of two primary spaces, the turbine room and the boiler room, both of which rise the full height of the interior. The turbines and boilers were fitted into the building form. A moveable overhead crane was essential, for raising the turbines for repair and maintenance. Elements of industrial loft construction and many of the building form's fire-resistive components are often incorporated into the early coal-fired powerhouse, such as panel-and-pilaster mill construction, and wall and roof structures exposed on the interior. Facilities for delivering coal, such as a railroad spur or a dock; and for storing it, either in the basement of the boiler room, in a shed, or a coal yard, were common. Few early steam powerhouses retain coal delivery facilities. Additions reflecting the gradual expansion of the plant to accommodate

⁷⁸ Betsy Hunter Bradley, *The Works: the Industrial Architecture of the United States*, (Oxford, England: Oxford University Press, 1999), 89-92, and 95-98.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 17

Beloit Power Plant
Beloit, Rock County, Wisconsin

larger and more complex turbines and boilers are also typical. Although the boilers had smokestacks adjacent, few power plants included in the AHI retain early smokestacks, as these were replaced as new boilers were installed.

The industrial loft building form, as defined by Bradley, was a long, narrow, multi-story building built between about 1885 and 1940. It was characterized by “pilaster-and-panel” mill construction, which is masonry construction with timber framing (steel framing beginning in the late 1910s), a brick finish, and a flat roof. The industrial loft incorporated fire-resistive elements such as eliminating ceiling finishes, attics, and combustible interior furnishings like shelving; isolating staircases and offices in towers apart from the factory floor; doors clad with sheet-metal; steel-framed, wire-glass windows, which were shatter proof; and sprinklers with a water tank on the roof. The flat roof added to the stability of the structure and increased its fire resistance.⁷⁹ The astylistic utilitarian exterior appearance of the industrial loft conformed to the engineer’s concept of beauty, which was based on function and utility. Industrial buildings were detailed to imply strength, stability, and efficiency. This was achieved through simple, functional designs that showcased the quality of the materials used and expressed the construction on the exterior. The pilaster-and-panel walls were articulated with pilasters, spandrels, and belt courses. Pilasters were often truncated at floor or window level on the top story, truthfully showing that, above that point, brick piers no longer supported the structure. Engineers emphasized the structure by placing ornament at load-bearing locations, such as window lintels, and pilaster capitals and bases.⁸⁰ Many of the early coal-fired power plants in the AHI also exhibit corbelling or a belt course at the frieze.

The red brick sections of the Powerhouse (the old turbine room, the old boiler room, and the old boiler room addition), erected incrementally between ca. 1907 and 1925, present a good example of the early period of coal-fired power plants. The exterior displays the appearance of an industrial loft, two-to-three stories tall, with regularly-spaced, multi-paned windows, some of which hold wire-glass, and others of which are steel industrial sash. The Powerhouse possesses pilaster-and-panel mill construction. Exterior ornamentation reflects the industrial aesthetic, and is limited to pilasters articulating the structure, brick corbelling at the frieze, rock-faced stone lintels and sills, and a plain coping. The interior retains the two principal spaces, the old boiler room (and the old boiler room addition), and the turbine room. The old boiler room and the old boiler room addition are a single, open space that rises two- and three-stories tall. The turbine room is also a full height, open space, although two, small, flat-roofed rooms were built into the turbine room ca. 1947 (a machine shed, and a locker room). The traveling crane is still present. The interior retains fire-resistive elements such as exposed walls and ceilings, concrete flooring, metal staircases (descending to the concrete basement),

⁷⁹ Bradley, 104-107, 113, 125-135, 146, and 161-163.

⁸⁰ Bradley, 202-232.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 18

Beloit Power Plant
Beloit, Rock County, Wisconsin

and metal-clad doors. There was a free-standing, concrete chimney (not extant) south of the Powerhouse by 1915. It was either incorporated into the 1917/1920 additions, or replaced at that time. In 1925, a new smokestack (not extant) was included in the old boiler room addition. That smokestack remained until at least 1959.

Historically, the Powerhouse had a coal yard north of the building (on the site of the Blackhawk Generating Station addition). Railroad spurs extended from the north into the coal yard. Coal was also stored in the basement of the 1925 old boiler room addition.⁸¹ The red brick sections of the Powerhouse have lost their machinery and equipment, as well as the smokestack that vented the boilers. Further, the Powerhouse had a water treatment room, built in 1920 and removed ca. 1947. This was an unusual feature for a coal-fired plant. However, the Powerhouse had a small, 200-kilowatt, hydroelectric generator, operated from 1920 until the adjacent WP&L hydroelectric plant was erected in 1928. The water that powered the turbine was treated before being discharged back into the Rock River.

Despite alterations, the red brick sections of the Powerhouse clearly convey their historical use and appearance as an early coal-fired steam turbine power plant. The Blackhawk Generating Station addition is a major change, but its placement to the rear of the red brick sections leaves the principal elevations of that part of the plant visible, and enhances the plant as a whole because it displays the transformation of coal-fired plants between 1900 and 1960.

The Blackhawk Generating Station addition to the Powerhouse is an excellent example of a mid-century, coal-fired powerhouse. Beginning in the early 1940s, the function was expressed in the form of the generating station. The form was designed to house the machinery and provide access to maintain it. Examples include two additions to the Edgewater Generating Station (1941 and 1951) near Sheboygan; the five additions to the 1927 J.P. Pulliam Generating Station (1943-1958) in Green Bay; the Rock River Generating Plant (1954) just north of Beloit; and the Oak Creek Generating Station (five sections all built in the 1950s) at Oak Creek.

These plants illustrate that coal-fired power plants erected in the 1940s and the 1950s were composed of two rectangular blocks, the turbine block and the taller, boiler block, set side-by-side. The turbine block had exposed ceilings, but the walls and floors were often finished with tile. Condensers were set below the turbines and required coolant, so siting the plant near a source of fresh water was important, and a water treatment room was placed adjacent to the condensers. A traveling crane ran the length of the turbine block. The boiler block housed massive, multi-story boilers, furnaces, and coal conveying and handling equipment, with metal grate walkways accessing the equipment. Each boiler had its own

⁸¹ *Map of Beloit, Wisconsin*, (1908, 1915, 1926, and 1939).

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 19

Beloit Power Plant
Beloit, Rock County, Wisconsin

smokestack. The exterior appearance was asytlistic utilitarian, with steel industrial sash or glass block, and incorporated minimal ornamentation inspired by the Contemporary and International styles. Facilities for delivery, processing, and storage of coal, as well as ash disposal, were also needed on site, and could include rail spurs or a delivery dock, exterior coal conveyors, crusher house, junction house, and ash silo or settlement pond (figure 6a).

The Blackhawk Generating Station addition incorporates the form, massing and Contemporary architectural flourishes characteristic of mid-century coal-fired power plants, as well as all of the interior features of the turbine and boiler blocks. The immense coal yard could hold 48,000 tons of coal, and possessed a rail spur for coal delivery, a crusher house to partially process the coal, a junction house, interconnecting exterior coal conveyors, and an ash silo.

The interior of the Blackhawk Generating Station addition is unaltered. The coal yard and the crusher house are present, but the junction house, ash silo and conveyor have been removed. However, these were ancillary resources, and the Blackhawk Generating Station addition retains sufficient integrity to convey its historic function and appearance.

In comparison, the Edgewater Generating Station, the J.P. Pulliam Generating Station, and the Oak Creek Generating Stations have been substantially altered with post-1960 additions that have obscured and overwhelmed the mid-century sections. The Rock River Generating Station, in contrast, was never expanded and retains its original appearance and most of its original equipment. The Rock River Generating Station, erected in 1954, was determined eligible (2015) under *Criterion A*, in industry, for its role in providing electricity to the region in the postwar boom era. The Rock River Generating Station was also determined eligible under *Criterion C* as a fine example of a mid-century coal-fired generating plant, with excellent integrity. The Blackhawk Generating Station addition to the Powerhouse, (part of the subject building) though not as large as the Rock River Generating Plant, is as good and intact an example of a postwar coal-fired steam plant. The presence of the red brick sections, illustrating the appearance, form, and massing of the coal-fired plants of the early twentieth century, enhances the engineering significance of the Powerhouse, because the whole illustrates the evolution of coal-fired generating facilities between 1900 and 1960, a time of increasing importance of electric power, when the use of electricity became an integral part of daily life.

The Engineering Firm: Sargent & Lundy

Frederick Sargent (1859-1919) was a mechanical engineer with Western Edison Light Company in Chicago in 1891, when he founded a partnership with Ayres Lundy (1861-1949), an electrical engineer. Sargent & Lundy designed the Harrison Street Station for the Western Edison Light Company in 1892. The Harrison Street Station in Chicago was the biggest coal-fired facility built in

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 20

Beloit Power Plant
Beloit, Rock County, Wisconsin

the United States to that time, and the first to utilize steam turbines, designed by Sargent. Sargent & Lundy produced numerous generating plants, expanding into nuclear plant and equipment design in the mid-1950s with the invention of the first boiler water reactor for the Argonne National Laboratory. Presently, Sargent & Lundy is one of the largest engineering firms in the United States and continues to design power plants.⁸²

Conclusion

The Beloit Power Plant is eligible for the National Register under Criterion C, locally significant in the area of Engineering as an excellent and highly intact example of a coal-fired power plant. The Beloit Water, Gas and Electric Company (BWGE) Powerhouse/Blackhawk Generating Station (Powerhouse) represents the evolution of coal-fired power plants from the early- to the mid-twentieth century.

Early coal-fired, steam turbine powerhouses possessed the exterior appearance of brick industrial lofts, with machinery fitted into the building in two major, full-height open spaces: the turbine room and the boiler room. The red brick sections of the Powerhouse (the old turbine room, the old boiler room, and the old boiler room addition), erected incrementally between 1907 and 1925, are a good example of the early period of coal-fired power plants, and retain good integrity. The exterior displays the appearance and character defining features of an industrial loft, being two-to-three stories tall, with regularly-spaced, multi-paned windows, some of which hold wire-glass, and others of which are steel industrial sash.

Beginning in the early 1940s, function dictated the form of the coal-fired powerhouse: the form was designed to house the machinery and provide access to maintain it. Coal-fired power plants erected in the 1940s and the 1950s were composed of two rectangular blocks, the turbine block and the taller, boiler block, set side-by-side. The turbine block had exposed ceilings, but the walls and floors were often finished with tile. Condensers were set below the turbines and required coolant, so siting the plant near a source of fresh water was important, and a water treatment room was placed adjacent to the condensers. A traveling crane ran the length of the turbine block. The Blackhawk Generating Station addition, erected 1945-1949, exhibits all of these features that define the type and; therefore, is an excellent and intact representative of a mid-century, coal-fired powerhouse.

The presence of the red brick sections, illustrating the appearance, form, and massing of the coal-fired plants of the early twentieth century, enhances the engineering significance of the Powerhouse,

⁸² Sargent & Lundy, LLC, "Sargent & Lundy: Celebrating 125 Years of Powerful Ideas," *About Us*, 2016, <http://sargentlundy.com/home/about-us/company-history.html>, (retrieved 1 November 2016); and "Sargent, Famous Power Engineer, Dies in Glencoe," *Chicago Tribune*, July 27, 1919, 13.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 8 Page 21

Beloit Power Plant
Beloit, Rock County, Wisconsin

because the whole illustrates the evolution of coal-fired generating facilities between 1900 and 1960, a time of increasing importance of electric power, when the use of electricity became an integral part of daily life.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 9 Page 1

Beloit Power Plant
Beloit, Rock County, Wisconsin

__ Insert References

BIBLIOGRAPHY

1949 Annual Report. Madison, Wisconsin: Wisconsin Power and Light Company, 1950.

1950 Annual Report. Madison, Wisconsin: Wisconsin Power and Light Company, 1951.

“\$42,000,000 Construction Program Now Under Way.” *The Blackhawk Open Door*, October 1950, 1.

“\$15 million by 1975, WPL Tells Spending on Environmental Aids.” *The Capital Times*, April 23, 1970, 30.

Annual Report, 1942. Madison, Wisconsin: Wisconsin Power and Light Company, 1943.

Annual Report, 1944. Madison, Wisconsin: Wisconsin Power and Light Company, 1945.

Annual Report, 1946. Madison, Wisconsin: Wisconsin Power and Light Company, 1947.

Annual Report, 1947. Madison, Wisconsin: Wisconsin Power and Light Company, 1948.

Annual Report, 1948. Madison, Wisconsin: Wisconsin Power and Light Company, 1949.

Annual Report: 1952. Madison, Wisconsin: Wisconsin Power and Light Company, 1953.

Annual Report: 1954. Madison, Wisconsin: Wisconsin Power and Light Company, 1955.

Annual Report: 1955. Madison, Wisconsin: Wisconsin Power and Light Company, 1956.

Annual Report of the Wisconsin Power and Light Company for Fiscal Year Ending December 31, 1925. Madison, Wisconsin: Wisconsin Power and Light Company, 1926.

Annual Report of the Wisconsin Power and Light Company for Fiscal Year Ending December 31, 1928. Madison, Wisconsin: Wisconsin Power and Light Company, 1929.

Beck, Bill. *Transforming the Heartland: The History of the Wisconsin Power & Light Company*. Madison, Wisconsin: Wisconsin Power & Light Company, 1990.

“Beloit Power Plant to Shut Down by End of Year.” *Milwaukee Journal-Sentinel*, May 26, 2009,

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 9 Page 2

Beloit Power Plant
Beloit, Rock County, Wisconsin

<http://archive/jsonline.com/blogs/business/46127242.html>, (retrieved 17 September 2016).

“Beloit Utility Decision by Railroad Commission of Wisconsin.” *Pipeline & Gas Journal*, 95 (September 11, 1911): 162-166.

Beloit Water, Gas and Electric Company to Union Savings Bank & Trust Company, First Mortgage, Securing \$3 Million, For Twenty-Five Years, at 5 Percent, Sinking Fund and Gold Bonds. Beloit, Wisconsin: n.p., 1912.

Beloit, Wisconsin. Beloit Historical Society. Blackhawk Power Plant File.

The Blackhawk Open Door. Beloit, Wisconsin: Wisconsin Power and Light Company, October 1950.

The Book of Beloit. Beloit, Wisconsin: The Beloit Daily News, 1936.

The Book of Beloit II: 1836-1986. Beloit, Wisconsin: Beloit Daily News, 1986.

Brown, William Fiske, ed. *Rock County Wisconsin: A New History.* Chicago: C. F. Cooper and Company, 1908.

Eagle Creek Renewable Energy. “About Us.” <http://www.eaglecreekre.com/facilities/midwest-region>, (retrieved 29 October 2016).

Eagle Creek Renewable Energy. “Rock River.” <http://www.eaglecreekre.com/facilities/midwest-region/rock-river-wi-il>, (retrieved 28 October 2016).

Electrical World, 61, no. 1 (February 15, 1913): 373.

“Engineers in Town.” *The Beloit Daily News*, June 30, 1906, 5.

Handbook of Beloit. Beloit, Wisconsin: Ingersoll, Clark and Dunlap, 1893.

“Higher Tax Totals of State Utilities Shown By Records.” *Oshkosh Daily Northwestern*, August 23, 1940, 3.

History of Rock County, Wisconsin. Chicago: Western Historical Company, 1879.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 9 Page 3

Beloit Power Plant
Beloit, Rock County, Wisconsin

Kasten, Susan. "Second Act." *Beloit College Magazine*, (Spring 2014),
http://magazine.beloit.edu/?story_id=24518&issu_id=245012, (retrieved 17 September 2016)

Krause, Frank. *City Map of Beloit*. (Chicago: Everts, Baskin and Steward, 1873).

McDonald, Forrest. *Let There Be Light: The Electric Utility Industry in Wisconsin: 1881-1955*.
Madison, Wisconsin: The American History Research Center, 1957.

Madison, Wisconsin. Wisconsin Historical Society. Blackhawk Hydro Site File.

Madison, Wisconsin. Wisconsin Historical Society. Building Plans Correspondence of the Wisconsin
Industrial Commission/Department of Labor and Human Resources (E File), #1821.

Madison, Wisconsin. Wisconsin Historical Society. Wisconsin Architecture and History Inventory,
<http://www.wisahrd.org/index>, (retrieved 28 October 2016).

Map of Beloit, Wisconsin. Pelham, New York: Sanborn Publishing Company, 1884; 1890; 1895; 1902;
1908; 1915; 1926; and 1939.

Miller, A.B. *Map of Rock County, Wisconsin*. Milwaukee: A.B. Miller & Orrin Guernsey, 1858.

Power and Light News, 3 (February 1928): 17.

National Register of Historic Places. "City of Beloit Waterworks and Pump Station," Beloit, Rock
County, Wisconsin, Reference #900001460, 1990.

National Register of Historic Places. "Henry Rogers House," Appleton, Outagamie County,
Wisconsin, Reference #74000112, 1974.

Nesbit, Robert C. *Wisconsin: A History*. Madison: University of Wisconsin Press, 1973.

"News Items." *Utilitarian*, 27, no. 8 (January 1951): 6.

"Powerhouse of a Project – College Unveils Possible Plans Along the River." *Beloit Daily News*, May
6, 2014, http://www.beloitdailynews.com/powerhouse_of_a_project_college_unveils_possible/article,
(retrieved 17 September 2016).

"Rich a Forger for \$100,000." *The Beloit Daily News*, April 30, 1906, 1.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 9 Page 4

Beloit Power Plant
Beloit, Rock County, Wisconsin

Salkin, Philip H. "A Cultural Resources Study of the Blackhawk Hydroelectric Facility and Associated Study Area for the Wisconsin Power and Light Co. in Rock County, Wisconsin," October 1991.

"Sargent, Famous Power Engineer, Dies in Glencoe." *Chicago Tribune*, July 27, 1919, 13.

Sargent & Lundy, LLC, "Sargent & Lundy: Celebrating 125 Years of Powerful Ideas," *About Us*, 2016, <http://sargentlundy.com/home/about-us/company-history.html>, (retrieved 1 November 2016).

"Scrubber funnel." *The Beloit Daily News*, January 8, 1975, n.p.

Spicer, Louise. "Super Service: Robert Moore, Beloit, Has Spent Twenty-Five Years of Uninterrupted Service in the Electric Industry." *Power & Light News*, 1 (December 1926): 10.

Thacher, George. *Lines in the Sky*. Madison, Wisconsin: Wisconsin Power & Light Company, n.d.

U.S. Geological Survey. *Beloit quadrangle, Wisconsin* [map]. 1:24,000. 7.5 Minute Series. Washington, D.C.: United States Department of the Interior, USGS, 1962.

"Urban Road Next in Line." *The Beloit Daily News*, February 15, 1906, 6.

"Utilities Are Transferred." *The Beloit Daily News*, February 14, 1906, 5.

"Utilities to Pay State \$7,895,111 in Taxes." *Wisconsin State Journal*, September 15, 1944, 5.

Wisconsin Department of Natural Resources. Dam Safety Inspection Records, File 53.02, Beloit Dam/Blackhawk Dam and Hydroelectric Facility.

"Wisconsin Power & Light Company Marks Centennial." *The Beloit Daily News*, February 27, 1959, n.p.

"WPL Holdings Company History." <http://www.fundinguniverse.com/company-histories/wpl-holdings-inc-history/>, (retrieved 17 September 2016).

Wyatt, Barbara L., ed. *Cultural Resource Management in Wisconsin*. Three volumes. Madison, Wisconsin: State Historical Society of Wisconsin, 1986.

___ End of References

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 10 Page 1

Beloit Power Plant
Beloit, Rock County, Wisconsin

Insert Boundary Descriptions

VERBAL BOUNDARY DESCRIPTION

The historic boundary of the Beloit Power Plant is an irregular parcel, with the long axis parallel to Pleasant Street/Highway 51. It mostly coincides with the legal boundary of Lot 2, Rock County CSM 26:344-349 (figures 8a and 8b), which occupies parts of bluff lots 40, 41, 42, 43, 44, and 45 of the Original Plat of Beloit. Described as follows: Commencing at the east quarter corner of Section 35, T1N, R12E; thence N 0 degrees 10 minutes 28 seconds W along the E line of the NE ¼ of said Section 1279.06 feet; thence S 89 degrees 49 minutes 32 seconds W 47.71 feet to the Westerly right-of-way to Pleasant Street and the place of beginning; thence N 84 degrees 43 minutes 20 seconds W along said right-of-way 4.00 feet (H on CSM); thence S 5 degrees 16 minutes 40 seconds W along said right-of-way 156.50 feet (I on CSM); thence S 1 degree 14 minutes 2 seconds E along said right-of-way 56.32 feet (J on CSM); thence S 4 degrees 52 minutes 54 seconds W along said right-of-way 70.0 feet (K on CSM); thence N 85 degrees 7 minutes 6 seconds W along said right-of-way 6.00 feet (L on CSM); thence S 4 degrees 52 minutes 54 seconds W along said right-of-way 144.0 feet (part of M on CSM); thence N 89 degrees 47 minutes 19 seconds W 17.96 feet to the southeast corner of the chain link fenced enclosure (A2 on CSM); thence S 12 degrees 16 minutes 14 seconds E along east line of said fence 49.28 feet to northeast corner of the fenced enclosure (Y on CSM); thence N 78 degrees 20 minutes 31 seconds E along north line of said fence 61.14 feet (X on CSM); thence S 11 degrees 39 minutes 34 seconds E 33.76 feet (W on CSM); thence N 78 degrees 20 minutes 26 seconds E 2.76 feet (V on CSM); thence S 11 degrees 38 minutes 53 seconds E 10.70 feet (U on CSM); thence S 78 degrees 20 minutes 26 seconds W 2.75 feet (T on CSM); thence S 11 degrees 39 minutes 34 seconds E 56.64 feet (S on CSM); thence N 79 degrees 32 minutes 40 seconds E 30.00 feet along concrete retaining wall and into the Rock River feet (R plus 7 feet on CSM); thence N 11 degrees 43 minutes 25 seconds W 251.0 feet parallel to the west face of the Powerhouse (L1, M1, O1, Q1, S1, U1 on CSM); thence N 11 degrees 43 minutes 25 seconds W about 210 feet to the south edge of the former railroad bridge (Part of V1 on CSM); thence Northeasterly to the southwest corner of the Coal Yard Wall and along said Wall about 200 feet; thence Easterly and Southeasterly along said Wall and to the back line of the sidewalk along the west side of Pleasant Street about 90 feet; thence Southerly along the back line of said sidewalk to "drill holes found" about 280 feet (part of F on CSM); thence S 5 degrees 16 minutes 40 minutes W 68.27 feet (G on CSM) to the place of beginning. The historic boundary encloses about 3.0 acres.

VERBAL BOUNDARY JUSTIFICATION

The historic boundary for the Beloit Power Plant was drawn to include all those resources historically associated with the engineering significance of the Beloit Power Plant, and to provide an appropriate setting. The boundary mostly coincides with the legal boundary, but excludes city well on the south

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section 10 Page 2

Beloit Power Plant
Beloit, Rock County, Wisconsin

end of the site. The legal parcel does extend slightly into the Rock River and the power plant has components of the building that juts slightly (7 feet) into the river; therefore, this boundary accurately reflects the parcel and all built components of the power plant.

___ End of Boundary Descriptions

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section photos Page 1

Beloit Power Plant
Beloit, Rock County, Wisconsin

Name of Property: Beloit Power Plant
City: Beloit
County: Rock County
State: Wisconsin
Name of Photographer: Elizabeth L. Miller
Date of Photos: October 2016
Location of Original Data Files: Wisconsin Historical Society

WI_RockCounty_BeloitPowerPlant_0001
Powerhouse, west façade, camera facing southeast

WI_RockCounty_BeloitPowerPlant_0002
Crusher House, east (front) and south facades, camera facing northwest

WI_RockCounty_BeloitPowerPlant_0003
Coal Yard Wall, north and east sides, camera facing south-southwest

WI_RockCounty_BeloitPowerPlant_0004
Powerhouse, south (front) façade, camera facing north-northwest

WI_RockCounty_BeloitPowerPlant_0005
Powerhouse, north façade, camera facing south-southwest

WI_RockCounty_BeloitPowerPlant_0006
Powerhouse, east façade, camera facing west

WI_RockCounty_BeloitPowerPlant_0007
Powerhouse, east and south (front) facades, camera facing northwest

WI_RockCounty_BeloitPowerPlant_0008
Powerhouse, old boiler room addition looking into old boiler room, camera facing south

WI_RockCounty_BeloitPowerPlant_0009
Powerhouse, old boiler room addition, camera facing northeast

WI_RockCounty_BeloitPowerPlant_0010
Powerhouse, old turbine room, camera facing southwest

WI_RockCounty_BeloitPowerPlant_0011
Powerhouse, old turbine room, camera facing north-northwest

WI_RockCounty_BeloitPowerPlant_0012
Powerhouse, turbine block, camera facing north

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section photos Page 2

Beloit Power Plant
Beloit, Rock County, Wisconsin

WI_RockCounty_BeloitPowerPlant_0013
Powerhouse, turbine block, camera facing south

WI_RockCounty_BeloitPowerPlant_0014
Powerhouse, turbine block, camera facing southwest

WI_RockCounty_BeloitPowerPlant_0015
Powerhouse, turbine block, camera facing north

WI_RockCounty_BeloitPowerPlant_0016
Powerhouse, boiler block, camera facing northwest

WI_RockCounty_BeloitPowerPlant_0017
Powerhouse, boiler block, camera facing east

WI_RockCounty_BeloitPowerPlant_0018
Crusher House, west and south facades, camera facing east-northeast

WI_RockCounty_BeloitPowerPlant_0019
Coal Yard Wall, east side, camera facing west-northwest

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section figures Page 1

Beloit Power Plant
Beloit, Rock County, Wisconsin

List of Figures

Figure 1: Beloit Power Plant, Site Plan with Historic Boundary and Exterior Photo Key

Figure 2: Photo Key

Figure 3. Powerhouse Plan with Construction Dates

Figure 4a. Powerhouse, Basement Plan

Figure 4b. Powerhouse, Mezzanine Between Basement and Ground Floor

Figure 4c. Powerhouse, Ground Floor

Figure 4d. Powerhouse, Main Mezzanine

Figure 4e. Powerhouse, Level Above Main Mezzanine

Figure 5a. Powerhouse, Coal Yard to Boilers

Figure 5b. Powerhouse, Boilers to Turbines

Figure 6. Powerhouse, ca. 1950

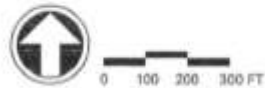
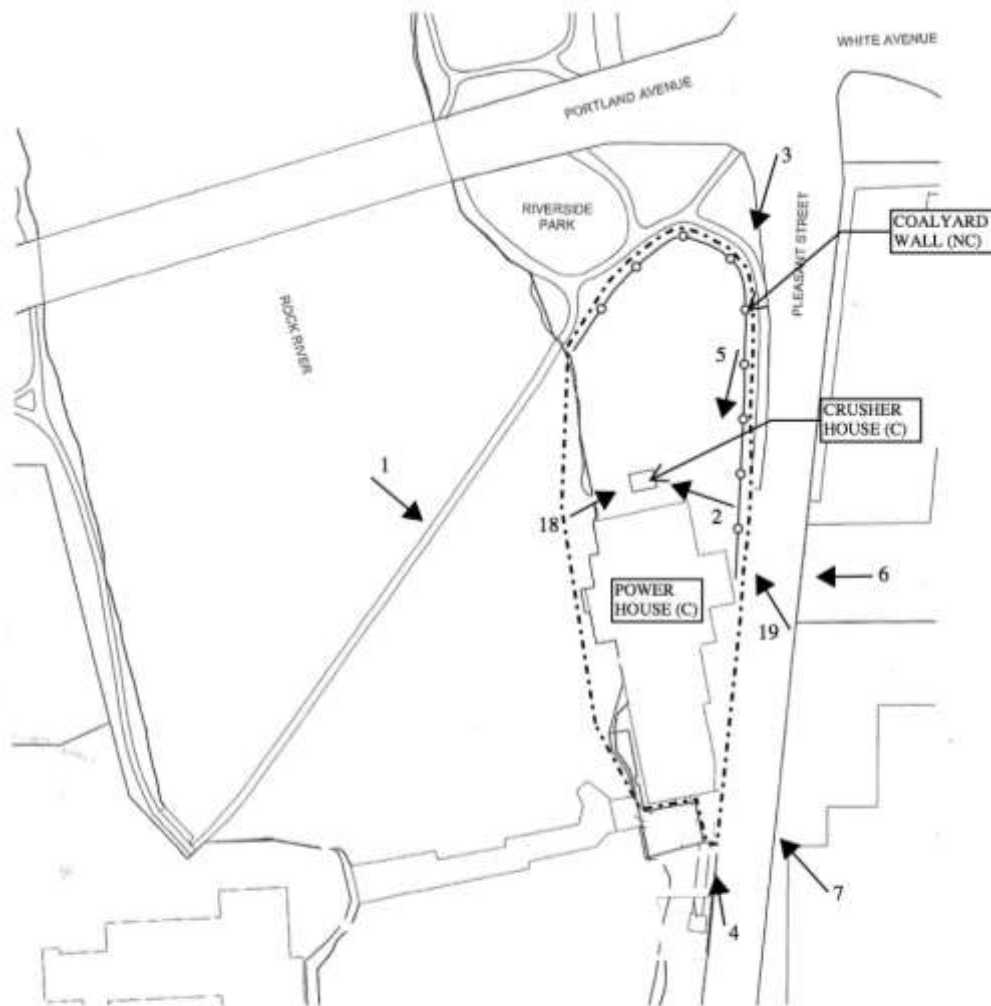
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section figures Page 2

Beloit Power Plant
Beloit, Rock County, Wisconsin

Figure 1. Beloit Power Plant, Site Plan with Historic Boundary and Exterior Photo Key



Source: Rowan Davidson, Robert Short, and Jennifer L. Lehrke,
"City of Beloit Architectural and Historical Intensive Survey Report,
Prepared for the Wisconsin Historical Society, 2015-2016.

LEGEND	
HISTORIC BOUNDARY	---
CONTRIBUTING	C
NON-CONTRIBUTING	NC
NUMBER & DIRECTION OF PHOTO	4 →

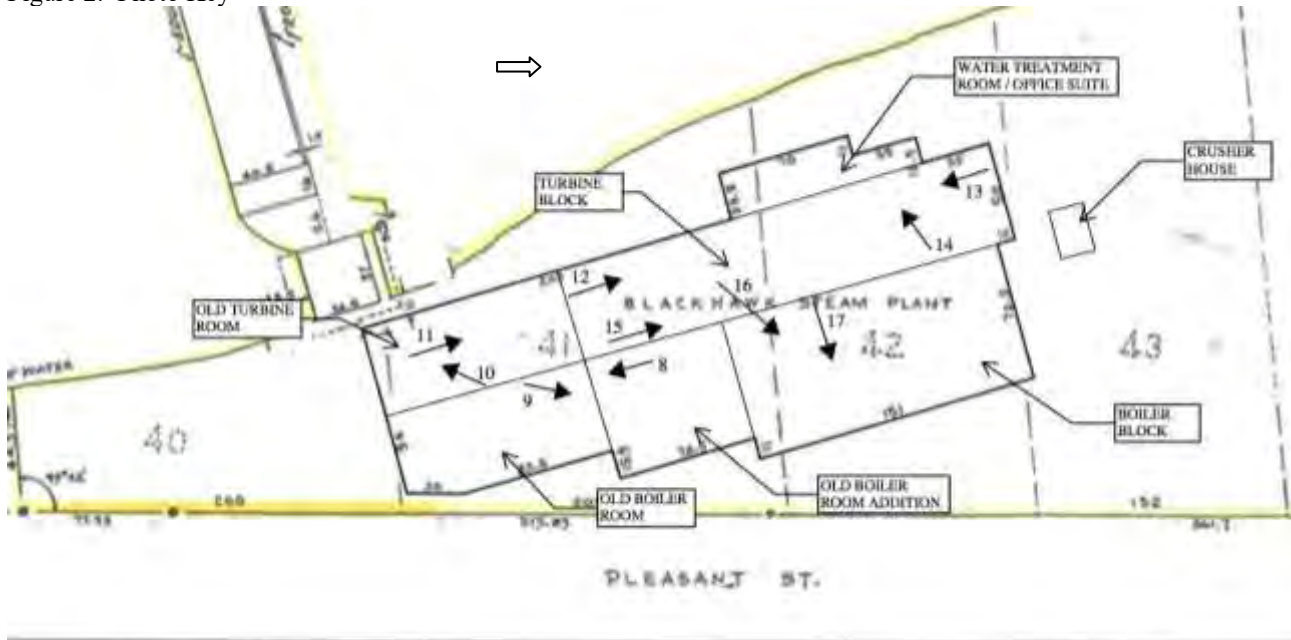
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section figures Page 3

Beloit Power Plant
Beloit, Rock County, Wisconsin

Figure 2. Photo Key



United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section figures Page 4

Beloit Power Plant
Beloit, Rock County, Wisconsin

Figure 3. Powerhouse Plan with Construction Dates



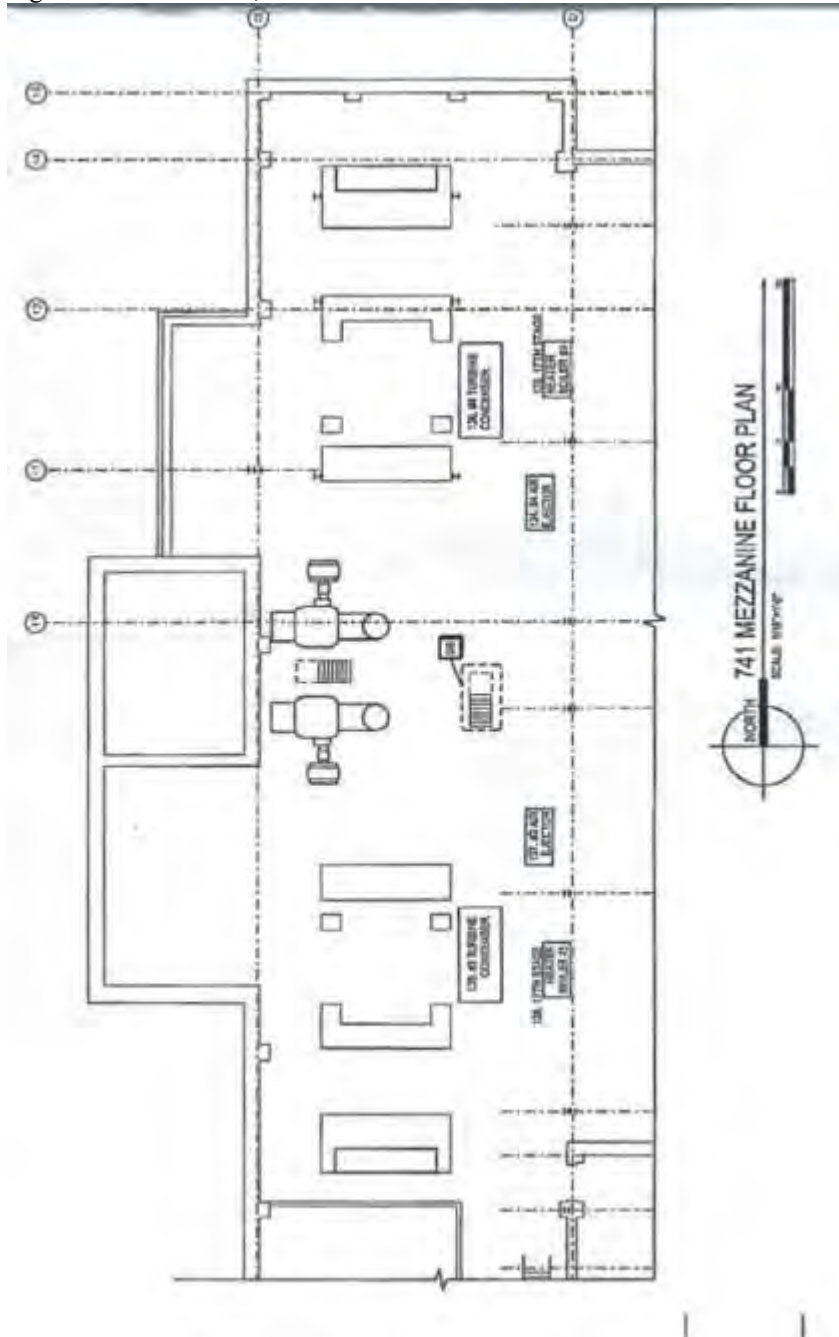
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section figures Page 6

Beloit Power Plant
Beloit, Rock County, Wisconsin

Figure 4b. Powerhouse, Mezzanine Between Basement and Ground Floor



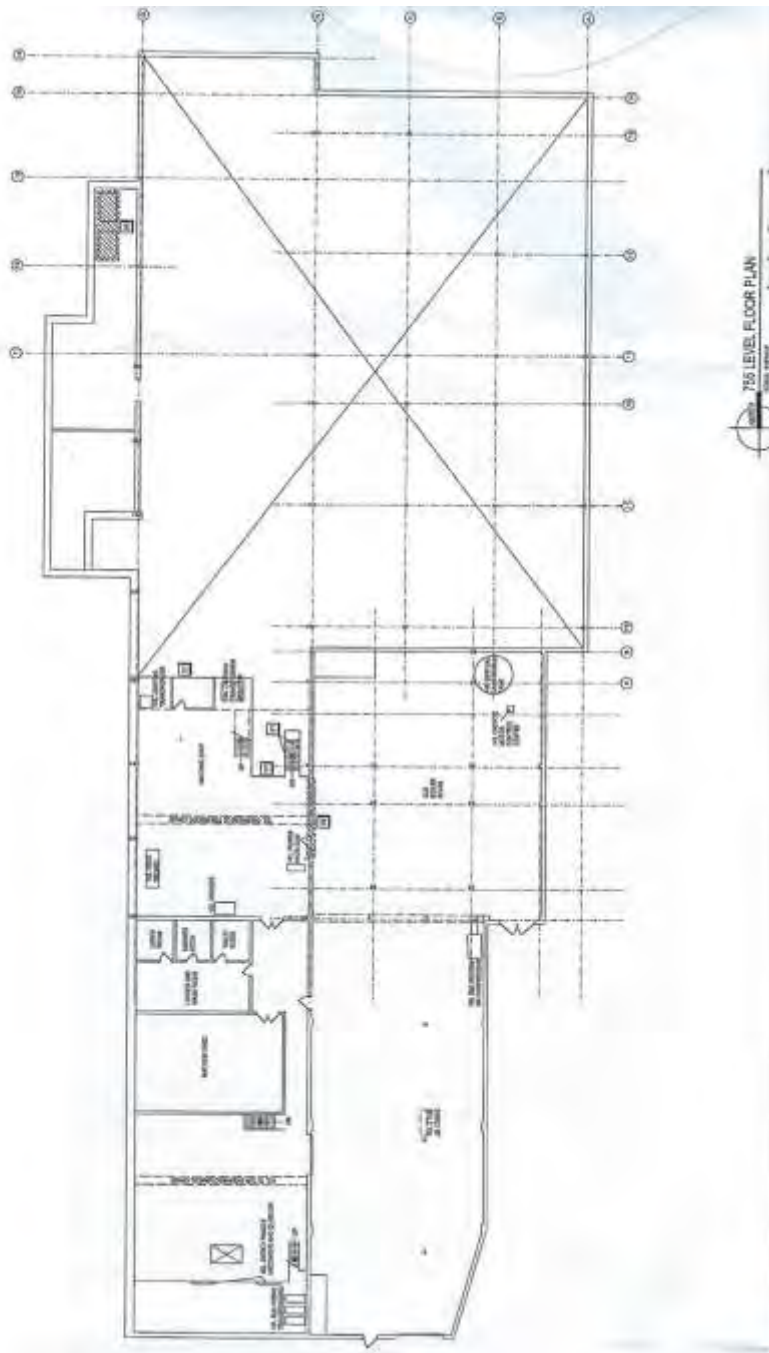
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section figures Page 7

Beloit Power Plant
Beloit, Rock County, Wisconsin

Figure 4c. Powerhouse, Ground Floor



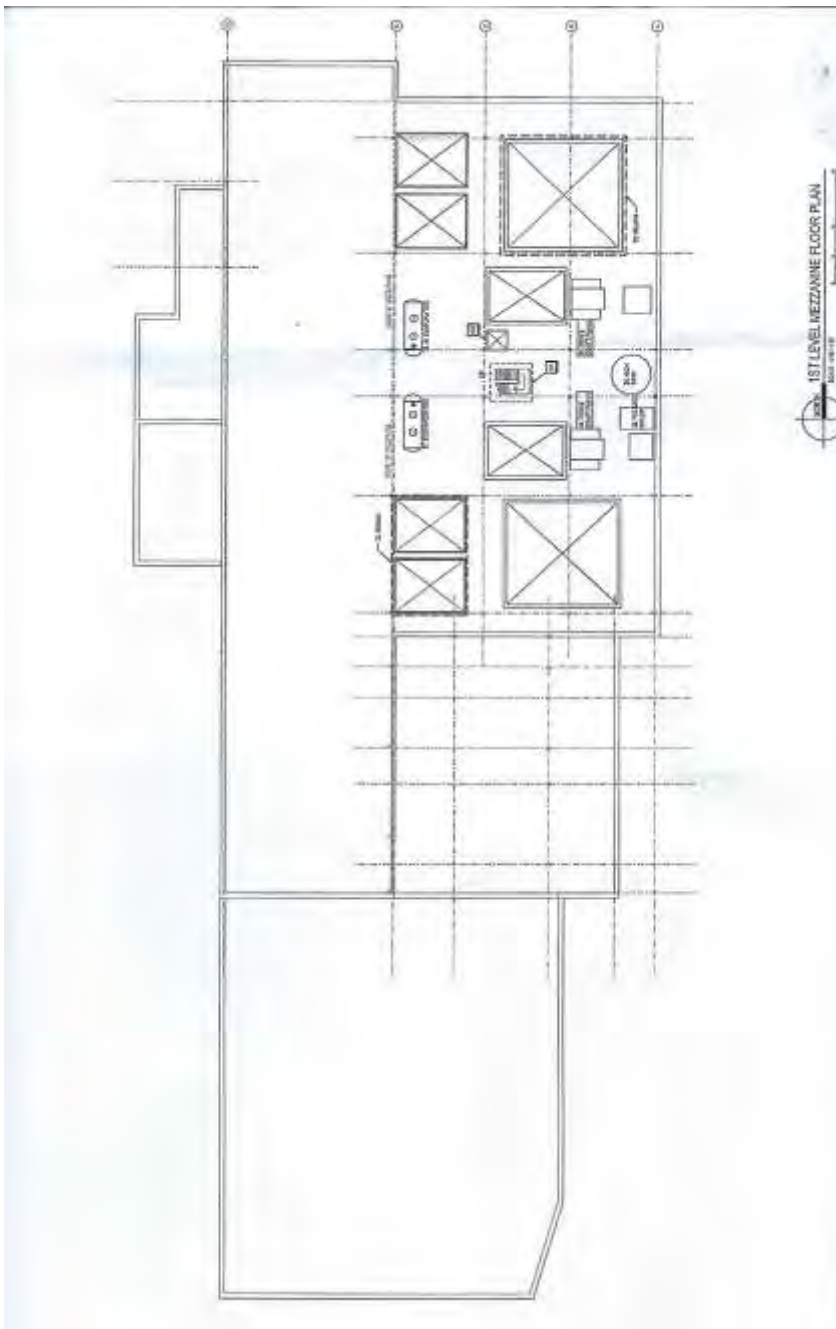
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section figures Page 9

Beloit Power Plant
Beloit, Rock County, Wisconsin

Figure 4e. Powerhouse, Level Above Main Mezzanine



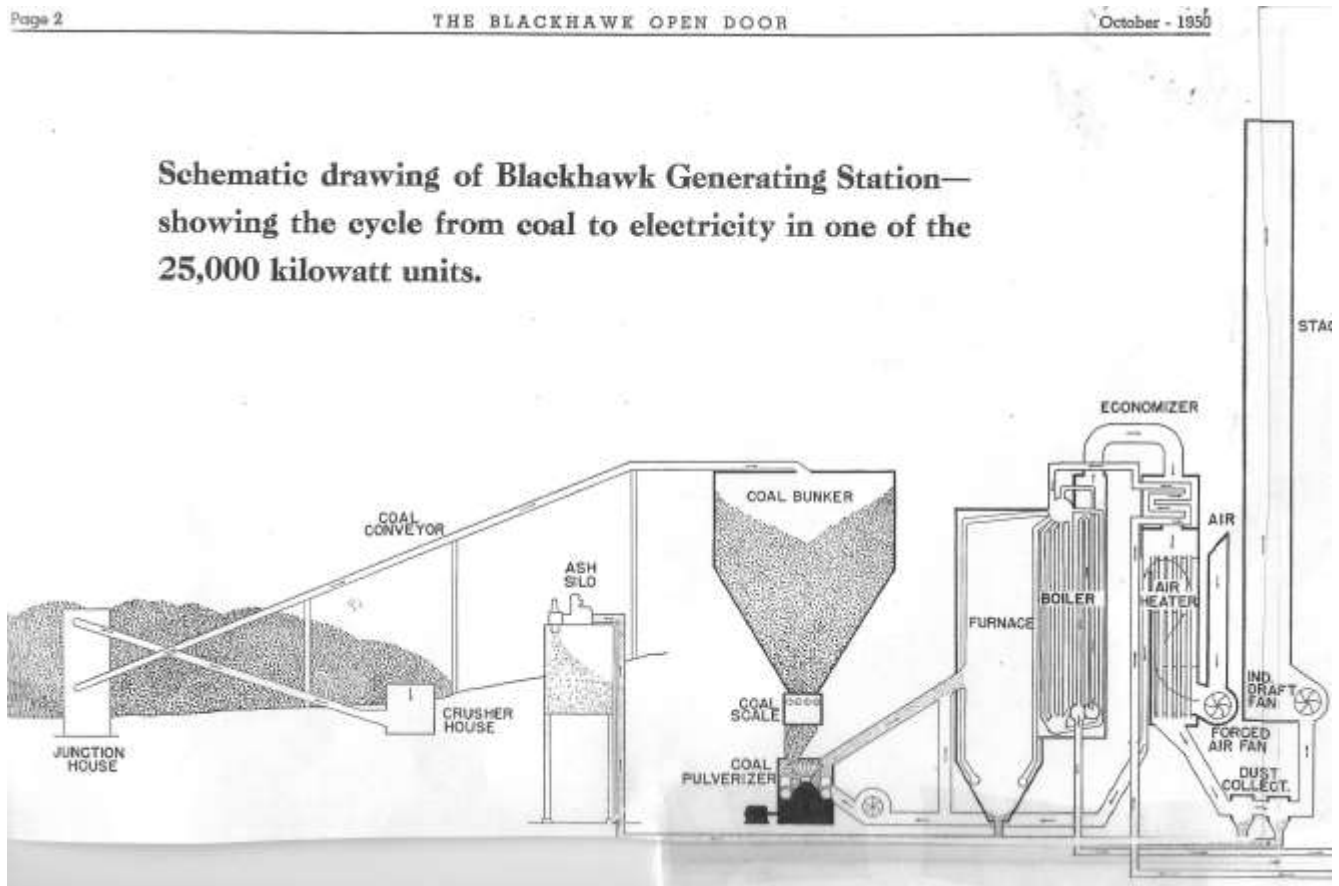
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section figures Page 10

Beloit Power Plant
Beloit, Rock County, Wisconsin

Figure 5a. Powerhouse, Coal Yard to Boilers



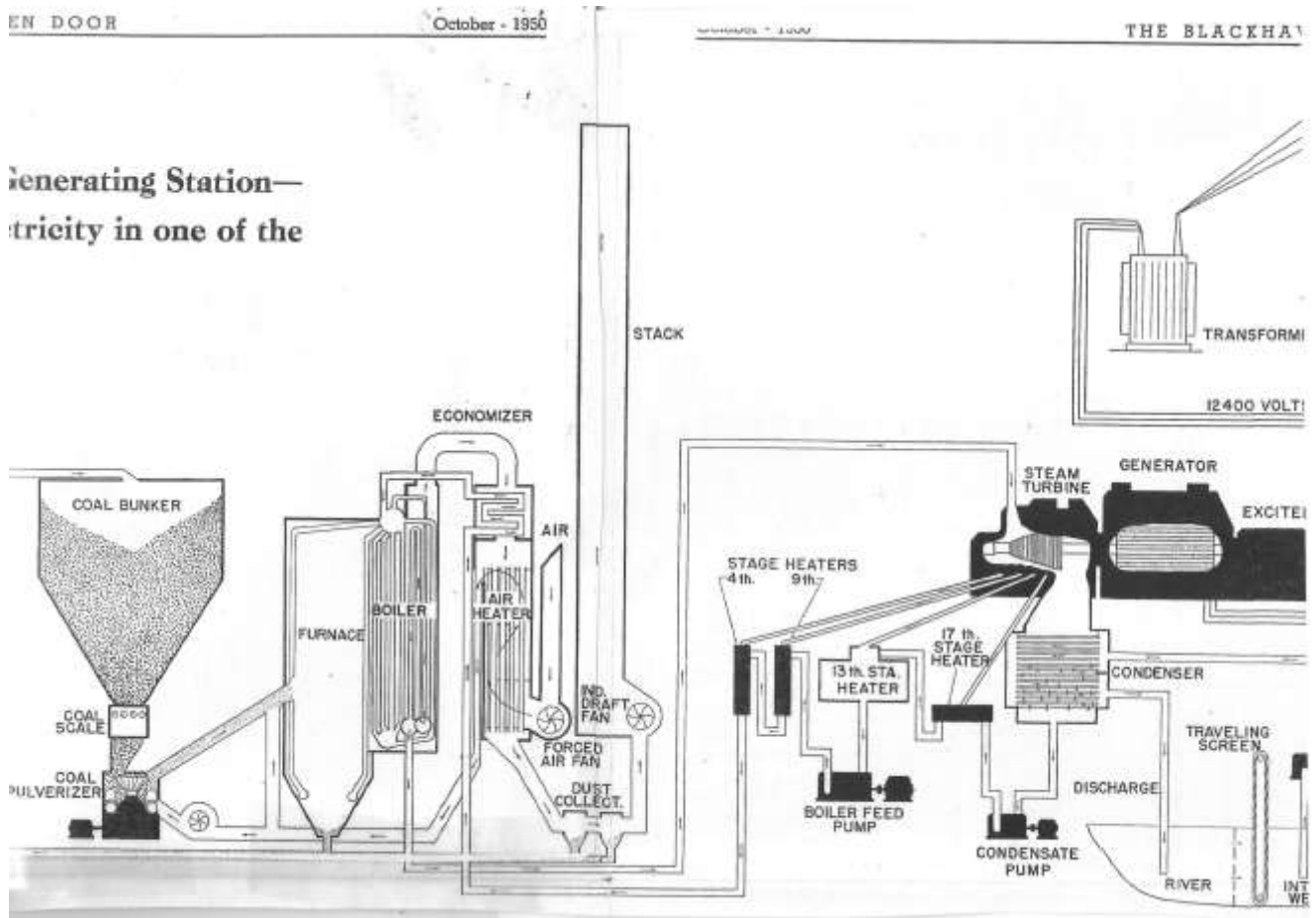
United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section figures Page 11

Beloit Power Plant
Beloit, Rock County, Wisconsin

Figure 5b. Powerhouse, Boilers to Turbines



United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section figures Page 12

Beloit Power Plant
Beloit, Rock County, Wisconsin

Figure 6. Powerhouse, ca. 1950

Source: Susan Kasten, "Second Act," *Beloit College Magazine*, (Spring 2014),
http://magazine.beloit.edu/?story_id=24518&issu_id=245012, (retrieved 17 September 2016).











EAGLE CREEK
Beloit Hydroplant
1890-1914





 ALLIANT ENERGY
Powering a Better Future



NO PARKING
ANY TIME
←→

NO PARKING
ANY TIME
←→







LYON
20000





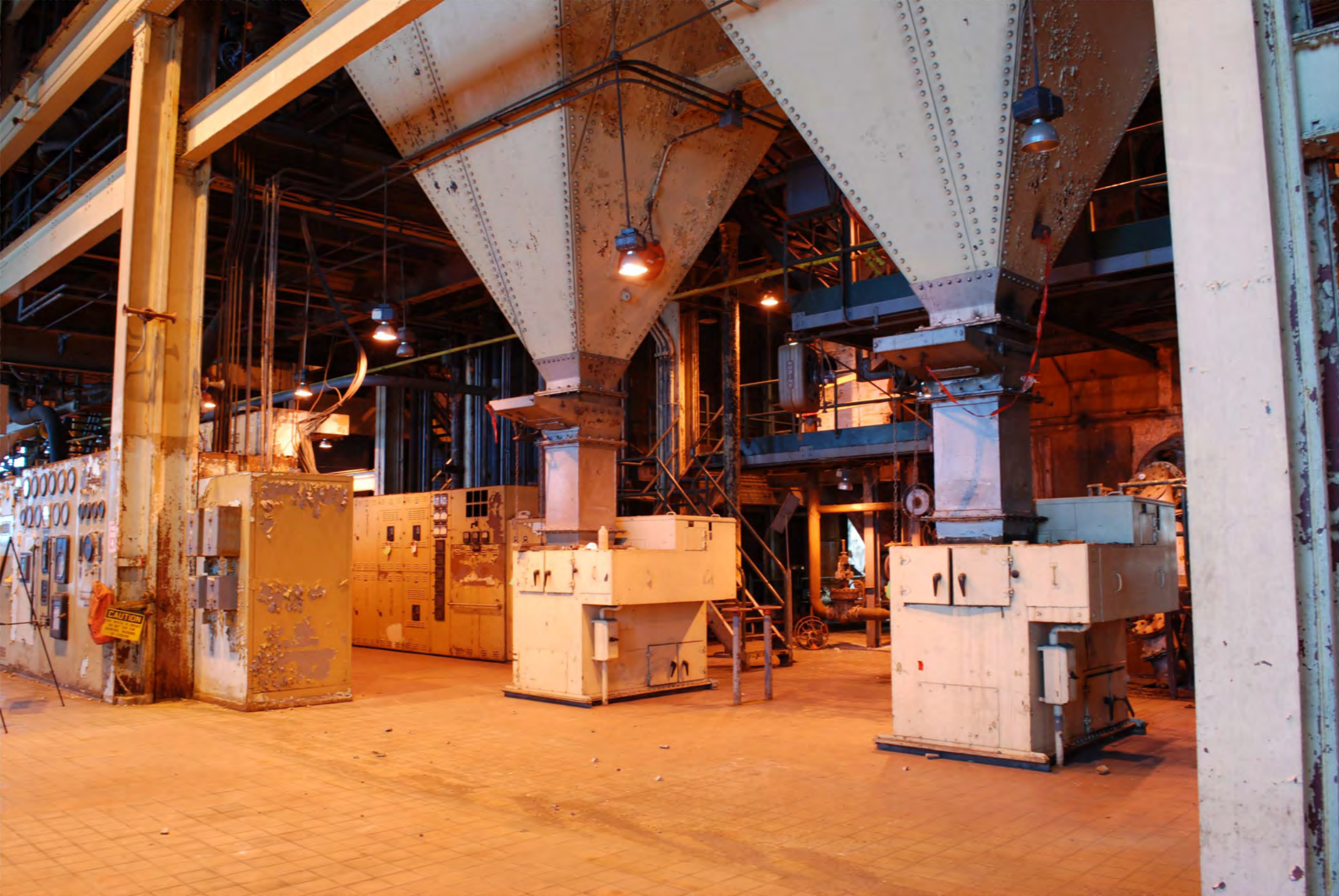
NOTICE

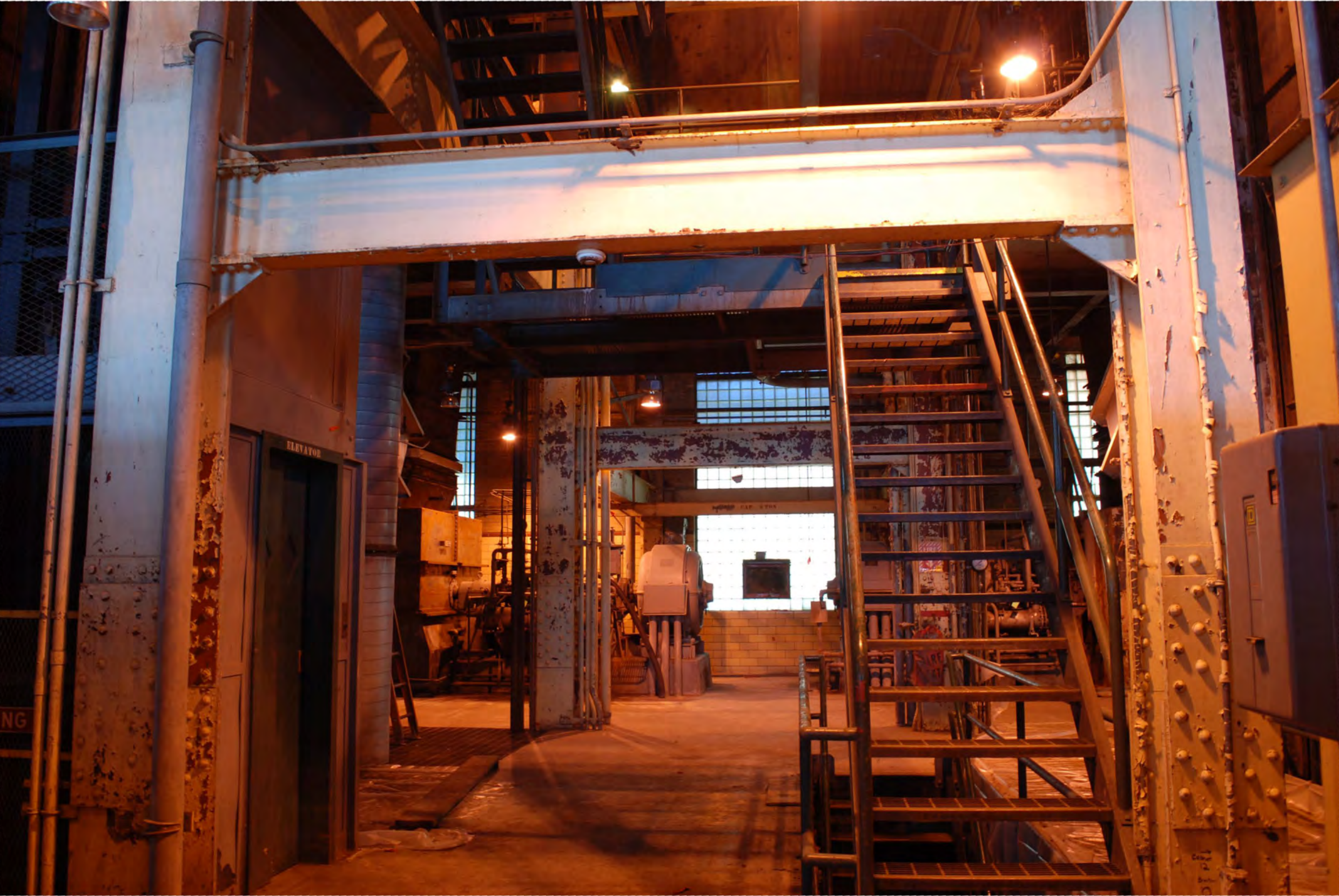
WATCH
ELDER
OR
IT MAY
HURT YOU











ELEVATOR

NG





NOTICE

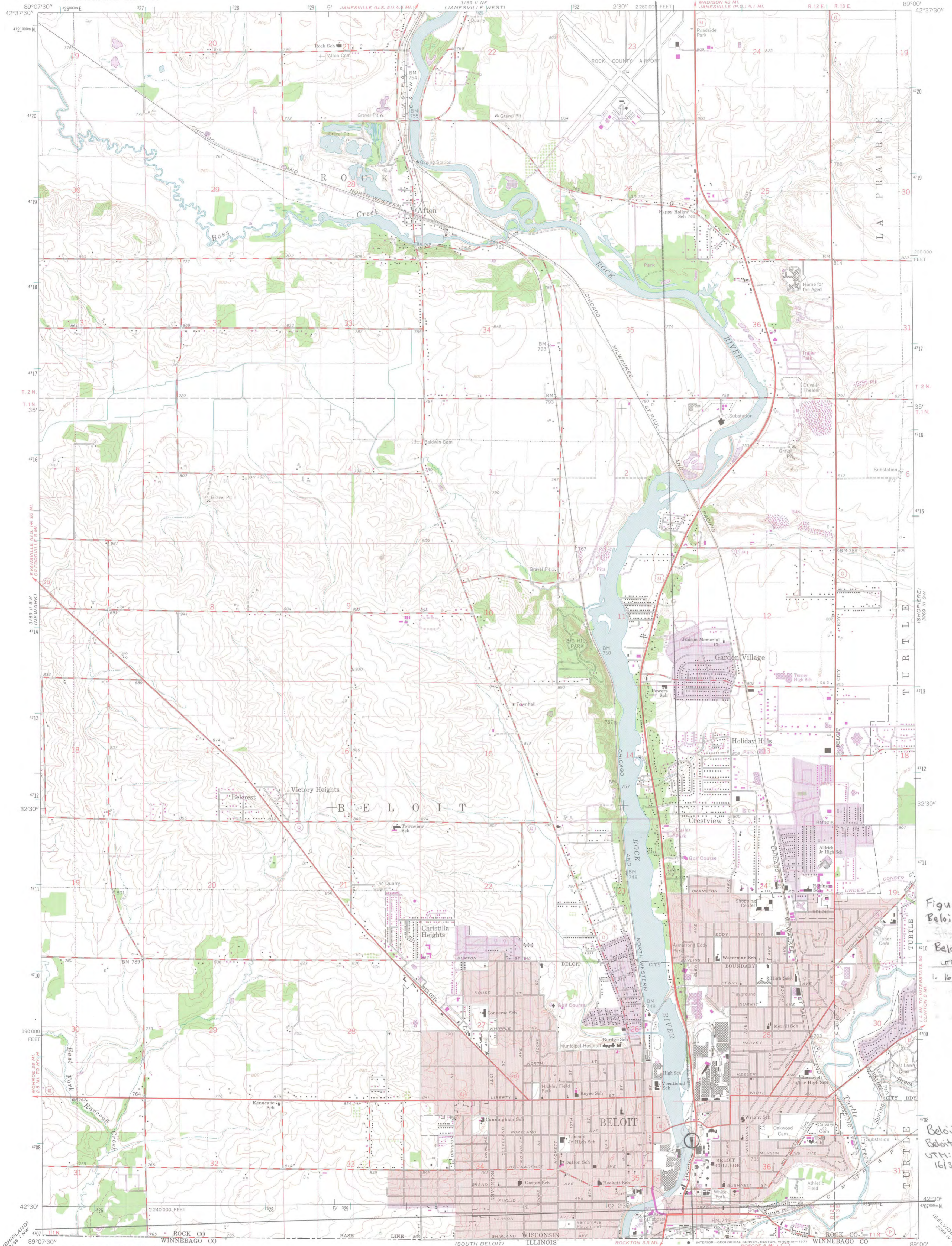
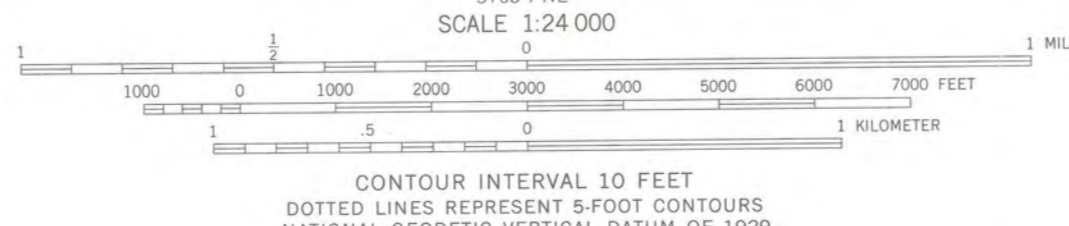
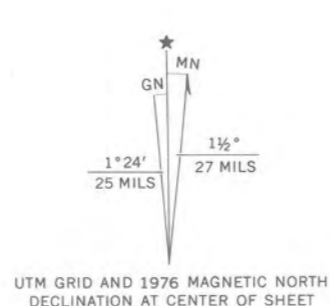


Figure 1
Beloit Power Plant
Beloit, Rock Co., WI
UTM REFERENCES:
1. 161333000/4707800

Beloit Power Plant
Beloit, Rock County, WI
UTM:
161333000/4707800

Mapped, edited, and published by the Geological Survey
in cooperation with State of Wisconsin agencies
Control by USGS and USC&GS
Topography by photogrammetric methods from aerial
photographs taken 1960. Field checked 1962
Polyconic projection. 1927 North American datum
10,000-foot grid based on Wisconsin coordinate system, south zone
1000-meter Universal Transverse Mercator grid ticks,
zone 16, shown in blue
Red tint indicates areas in which only landmark buildings are shown
Fine red dashed lines indicate selected fence and field lines where
generally visible on aerial photographs. This information is unchecked
Revisions shown in purple compiled from aerial photographs
taken 1971 and 1976. This information not field checked
Purple tint indicates extension of urban areas



CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
AND WISCONSIN GEOLOGICAL AND NATURAL HISTORY SURVEY, MADISON, WISCONSIN 53706
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



ROAD CLASSIFICATION
Heavy-duty ——— Light-duty ———
Medium-duty ——— Unimproved dirt ———
U.S. Route ——— State Route ———

BELOIT, WIS.
SE 1/4 JANSVILLE 15' QUADRANGLE
N4230—W8900/7.5
1962
PHOTOREVISED 1971 AND 1976
AMS 3169 II SE—SERIES V961

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action:

Property Name:

Multiple Name:

State & County:

Date Received: 6/16/2017 Date of Pending List: 7/18/2017 Date of 16th Day: 8/2/2017 Date of 45th Day: 7/31/2017 Date of Weekly List: 8/3/2017

Reference number:

Nominator:

Reason For Review:

Accept Return Reject 7/31/2017 Date

Abstract/Summary Comments:

Recommendation/ Criteria

Reviewer Edson Beall Discipline Historian

Telephone _____ Date _____

DOCUMENTATION: see attached comments : No see attached SLR : No

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.



May 19, 2017

Peggy Veregin
Wisconsin Historical Society
816 State Street
Madison, WI 53706

Peggy,

I am writing today to express my strong support in nominating the Beloit Power Plant for consideration to the Wisconsin State Register of Historic Places and National Register of Historic Places.

The Beloit Power Plant has performed a critical role in shaping the history of Beloit, Wisconsin, and the nation. The plant began providing power to the Beloit community in 1907 with a 500-kilowatt turbine. As technology advanced, the Beloit Power Plant kept pace, expanding to allow for more complex turbines and boilers to meet the increasing need for electricity throughout the 1920s. Under the demand of the post-World War II boom, the plant rose to meet the needs of construction and industrial development by expanding for a sixth and seventh time.

The Beloit Power Plant is significant, not only for its ability to fuel economic development, but also for its design. The Powerhouse, the plant's main building, perfectly encapsulates the transformation of coal-fired power plants from the early to mid-20th century. Originally constructed to appear as a brick factory, the Powerhouse had its machinery fitted into the building. In the 1940s, function began to dictate form, as reflected in the rectangular blocks constructed to accommodate larger turbines and boilers. The Beloit Power Plant's transformation serves as a standing tribute to the evolution of power production in America.

Generating electricity until 2005, the Beloit Power Plant provided a reliable source of energy to the Beloit community for nearly a century, spurring economic growth, and upholding the American manufacturing tradition. The plant, located near downtown Beloit and Beloit College, is at the center of Beloit's architectural landscape and deserves to be protected and preserved as such.

In addition to the Beloit Power Plant's rich historical past, this building also promises a bright future. Beloit College is repurposing the plant to provide a one-of-a-kind community space that will serve as a student union, recreation center, and athletics facility. With unanimous support from the Alumni Board and 1889 Council, Beloit eagerly awaits the completion of this project, slated to open in 2019. I again ask this building be considered for official registry, forever preserving Beloit's vibrant history.

Thank you for your time and consideration.

Sincerely,

45TH ASSEMBLY DISTRICT

State Capitol: PO Box 8953, Madison, WI 53708 (608) 266-1192
Toll-free: (888) 534-0045 FAX: (608) 282-3645 E-mail: Rep.Spreitzer@legis.wisconsin.gov
Follow me on Twitter @RepSpreitzer or at Facebook.com/RepSpreitzer



Mark Spreitzer

Mark Spreitzer
State Representative
45th Assembly District

45TH ASSEMBLY DISTRICT

State Capitol: PO Box 8953, Madison, WI 53708 (608) 266-1192
Toll-free: (888) 534-0045 FAX: (608) 282-3645 E-mail: Rep.Spreitzer@legis.wisconsin.gov
Follow me on Twitter @RepSpreitzer or at [Facebook.com/RepSpreitzer](https://www.facebook.com/RepSpreitzer)



Alliant Energy
4902 North Biltmore Lane
P.O. Box 77007
Madison, WI 53707-1007

1-800-ALLIANT (800-255-4268)
alliantenergy.com

May 16, 2017

Wisconsin State Historic Preservation Review Board
Wisconsin Historical Society
816 State Street
Madison, WI 53706

Submitted via email to: Peggy Veregin, National Register Coordinator
Peggy.Veregin@wisconsinhistory.org

To whom it may concern:

I am writing to express support for the inclusion of the Beloit Power Plant into the Wisconsin State Register of Historic Places and National Register of Historic Places.

Beloit's visible power plant along the Rock River, also called the Blackhawk Generating Station, first began producing power in 1913, operated by Beloit Water, Gas, & Electric Co. In 1925, Alliant Energy's Wisconsin utility, Wisconsin Power & Light Company, purchased the plant and began expanding. At its peak, the plant provided 50 megawatts of electricity to the area, employed 55 workers, and served the community well until its retirement in 2009.

Because of its position along the Rock River and its important role in helping grow the community, the Beloit Power Plant has become a recognizable landmark and we hope it stays that way for many years to come.

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink that reads "D.R. Kopp".

Douglas R. Kopp
Senior Vice President
Alliant Energy



WISCONSIN
HISTORICAL
SOCIETY



TO: Keeper
National Register of Historic Places

FROM: Peggy Veregin
National Register Coordinator

SUBJECT: National Register Nomination

The following materials are submitted on this Fourteenth day of June 2017, for the nomination of the Beloit Power Plant to the National Register of Historic Places:

- 1 Original National Register of Historic Places Nomination Form
- 1 CD with NRHP Nomination form PDF
- Multiple Property Nomination form
- 19 Photograph(s)
- 1 CD with image files
- 1 Map(s)
- 11 Sketch map(s)/figures(s)/exhibit(s)
- 2 Piece(s) of correspondence
- Other:

COMMENTS:

- Please ensure that this nomination is reviewed
- x This property has been certified under 36 CFR 67
- The enclosed owner objection(s) do or do not constitute a majority of property owners
- Other: