

United States Department of the 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 National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any 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 certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Bay de Noquet Lumber Company Waste Burner

other names/site number N/A

2. Location

street & number South end of River Street not for publication

city or town Nahma Township (Nahma) vicinity

state Michigan code MI county Delta code 041 zip code 49864

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this x 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 x meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

 national statewide x local

Signature of certifying official/Title _____ Date _____

MI SHPO
State or Federal agency/bureau or Tribal Government

In my opinion, the property meets does not meet the National Register criteria.

Signature of commenting official _____ Date _____

Title _____ State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

 entered in the National Register determined eligible for the National Register

 determined not eligible for the National Register removed from the National Register

 other (explain:) _____

Signature of the Keeper _____ Date of Action _____

 Name of Property

 County and State

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.)

- private
- public - Local
- public - State
- public - Federal

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

Contributing	Noncontributing	
		buildings
		district
		site
1		structure
		object
1	0	Total

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

Number of contributing resources previously listed in the National Register

 N/A

 N/A

6. Function or Use

Historic Functions
 (Enter categories from instructions.)

Current Functions
 (Enter categories from instructions.)

Other: Wood Waste Burner

Vacant/Not in Use

7. Description

Architectural Classification
 (Enter categories from instructions.)

Materials
 (Enter categories from instructions.)

Other: round wood waste burner

foundation: Limestone

walls: Iron

roof: N/A

other: Brick

Name of Property

County and State

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

The Bay de Noquet Lumber Company Waste Burner is a cylindrical brick-lined iron structure about one hundred feet tall and thirty-two feet in diameter between the outer walls. Constructed between 1888 and 1893, the structure was built to burn bark and other waste products from the company's nearby sawmill. Standing on a limestone base, the burner is faced in plates supported by five broad horizontal metal bands or straps in the lower portion and four more horizontal cylindrical metal bands toward the top. Brick walls line the lower part of the interior. In the lower thirty feet the brick lining is one and one-half feet in thickness, in the twenty-four feet above that the lining is one brick or about eight inches in thickness. Above the fifty-four-foot level the burner has no lining. A hemispherical metal mesh screen, topped by a weather vane bearing the initials of the Bay de Noquet Company – B. De. N. Co. – caps the burner.

Narrative Description

The waste burner stands at the southern extremity of Nahma, a sawmill company town developed by the Bay de Noquet Lumber Company. The lumber company ceased operations decades ago, but the town retains some of its old public buildings and churches along a main east-west street and also some of the company housing along it and a few streets to the north. One of the company's steam locomotives that brought logs to the sawmill on the company's railroad stands in a park in the center of town as an artifact of the community's sawmilling past.

The southern end of Nahma is low ground near Lake Michigan that retains a pattern of inlets between fingers of land that survives from the lumbering era. An aerial view of the townsite while the company was still in operation shows railroad lines, roads, and stacks of sawn lumber and other wood products occupying the fingers of land, with the sawmill complex near the end of the L-shaped peninsula that forms the southern edge and docks at the locations of the fingers of land projecting off that peninsula's southeast side. The burner stands about sixty feet east of the former sawmill site. A golf course has been built in much of the area that encompassed the mill, docks, and sidings, and little of the historic features but the burner and remnants of wooden dock pilings are now evident. The burner stands in an area of brush just off one of the fairways.

The burner stands on a foundation or base of local limestone slabs that is about three and one-half feet thick and rises about six feet above grade. The plates forming the structure's exterior are labeled "iron" in the 1893 Sanborn map. The exterior is formed of rectangular plates in horizontal bands, the junctions between the plates in alternate rows being aligned with the midpoints of the plates below. The plates may be designed to overlap one another slightly; in any event, they have what appear to be riveted connections. There are twenty-two rows of plates. The base of the lowest row contains several arch-headed openings on different sides that were apparently used for removing the ashes and also served as air intakes.

Each of the lowest five "courses" of plates bears a metal strap designed to provide support against an outward bulge. The strap for the base row runs across the upper edge of those plates above the arched openings, while the other straps run at mid-level in each band of plates. Portions of all the straps have broken off or come loose. In the upper nine rows of plates, four small round-profile horizontal hoops or bands, with turnbuckles – one at the top, one three rows down, six rows down, and nine down – provide similar support.

At the level of the ninth and tenth plate rows up there is a doorway on the burner's west side. Old photographs show what the 1893 Sanborn map labels a "conveyor," an apparently enclosed structure that carried the waste material on an incline from the mill to this location in the burner, where it was dropped into the fire below.

At the burner's top, a hemispherical cap of metal screening supported on a light frame served to keep burning debris from escaping. The Nahma burner is topped by a raised metal cap with its B. De. N. Co. weather vane.

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8. Statement of Significance

Applicable National Register Criteria

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

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

Criteria Considerations

(Mark "x" in all the boxes that apply.)

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 old or achieving significance within the past 50 years.

Areas of Significance

(Enter categories from instructions.)

Industry

Engineering

Period of Significance

1890-1951

Significant Dates

1951

Significant Person

(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

N/A

Period of Significance (justification)

Circa date of construction to date when sawmill ceased operations.

Criteria Considerations (explanation, if necessary)

Name of Property

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Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance and applicable criteria.)

Constructed between 1889 and 1893, the Bay de Noquet Company structure is the last of the many of its late nineteenth-century generation of wood waste burners associated with sawmill and wood products operations known to survive in Michigan. The burner is the only remnant left of the Bay de Noquet Company sawmill operation that gave rise to the company town of Nahma in the early 1880s and served as the village's economic mainstay until 1951, when the mills closed down.

Narrative Statement of Significance (Provide at least one paragraph for each area of significance.)

George Farnsworth and other associates in the Oconto Lumber Company from Wisconsin established the Bay de Noquet Company in 1881 and opened the first sawmill at Nahma, on Lake Michigan's Bay de Noquet at the mouth of the Sturgeon River, the following year. A second sawmill replaced the first following a lightning-caused fire in the summer of 1899. The replacement sawmill came from South Manistique, twenty-five miles east, where it had been shut down when its timber supply was exhausted. The mill, which had belonged to the Hall & Buell Lumber Company, is illustrated at its old South Manistique site in M. Vonciel LeDuc's *Manistique*, page 16. The 1897 state gazetteer and business directory shows South Manistique as a going concern, with the Hall & Buell sawmill and a population estimated at 400. The 1899 and 1901 directories no longer list the mill. "This mill was dismantled, loaded on scows, towed to Nahma, and set up in record time to cut their season's supply of logs with but little delay" (*History of Nahma*, 2). The Bay de Noquet Company's timberlands eventually came to encompass about 220,000 acres in Delta and Alger counties extending north almost to Grand Marais on Lake Superior. Logs for the mill were initially floated down the Sturgeon River and the sawn lumber shipped out by boat.

The company began work on its Nahma & Northern Railway in 1901 and completed the first part, linking Nahma with the Duluth, South Shore & Atlantic Railroad (Soo Line) at Nahma Junction, four miles north of the town, in 1903. In the coming years the railroad was extended northward to reach the company's timber holdings in Delta and Alger counties located away from the rivers. The railroad with its branch lines eventually totaled about seventy-five miles in length. The railroad allowed the company to ship logs to the mill all the time instead of just in the spring, so that the mill could run year-round, and also ship lumber and other products to market by rail as well as ship.

The sawmill's waste burner was constructed at an unknown time between April 1888 and November 1893. The 1888 Sanborn map shows no burner, while the 1893 one shows the structure that remains standing today. While the sawmill burned in 1899, there is nothing to suggest the burner, located about sixty feet away, was destroyed. The December 1899 Sanborn map shows the new sawmill, its main part occupying the same footprint as the old, with the waste burner at the same position.

Much of Nahma burned down in 1921 and the mill moved from South Manistique burned October 6, 1923 (*History of Nahma*, 3). Each time the company rebuilt, but by the 1940s they were exhausting the available timber. The mill closed down in July 1951, the original burner apparently in use until the end. An August 1951 story indicated that "two days following our visit work was to begin on demolishing the big saw mill. The machinery was to be shipped to West Virginia" ("A Town for Sale").

Waste Burners

The waste burner was born out of the need to dispose of the debris of sawmilling in a fire-safe manner. "The introduction of steam power and higher strength steels for use in the bandsaws used to cut lumber had an enormous impact on the production capacities of even the smallest mills. With these innovations came astounding volumes of waste composed of sawdust, slabs, chips, planer shavings, bark, edgings, remnants, and defects" (Mihalyo, 9). Burners of various types seem to have been in use from the early days of large-scale steam-powered sawmilling, and burners were common features of Michigan sawmills by the late nineteenth century. The first federal patent for a sawmill waste burner design was issued in

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1888 to a Michigan firm, the Muskegon Boiler Works. The Nahma burner exemplified this cylindrical form, with metal plate exterior, thick refractory lining of fire brick that thinned toward the top, and hemispherical wire mesh top (Mihalyo, 9-11). New innovations in sawmill waste burner design took place during the early twentieth century, but Bryant in his 1922 book on *Lumber: Its Manufacture and Distribution* (110) references this as still a standard type of waste burner. A review of historic photographs showing sawmill complexes reproduced in a small sampling of published histories of Michigan lumber towns (see bibliography) revealed examples of circular-footprint burners similar in appearance to Nahma's at widely separate towns such as Cadillac, Elk Rapids, Ford River, Grayling, Manistee, Manistique, and Ontonagon and hint at the number that must have existed during the late nineteenth and early twentieth centuries.

Dr. Charles K. Hyde in his inventories of historic engineering and industrial sites in Michigan during 1975-77 located only two surviving examples of waste burners, the Nahma structure and another cylindrical metal structure at nearby Rapid River that served a shingle and tie mill established in 1887 (Hyde, 60-61). C. O. Stiles' c. 1903 Delta County photo album illustrates the Rapid River burner as part of the Madden Shingle Company complex. That structure is no longer standing. No other surviving Michigan examples are known.

Developmental history/additional historic context information (if appropriate)

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

Bryant, Ralph Clement. *Lumber: Its Manufacture and Distribution*. NY: John Wiley & Sons, Inc., 1922.

Hyde, Charles K. *The Lower Peninsula of Michigan: An Inventory of Historic Engineering and Industrial Sites*. Washington, DC: Historic American Engineering Record, Office of Archaeology and Historic Preservation, U. S. Department of the Interior, 1976.

Hyde, Charles K. *The Upper Peninsula of Michigan: An Inventory of Historic Engineering and Industrial Sites*. Washington, DC: Historic American Engineering Record, Office of Archaeology and Historic Preservation, Heritage Conservation and Recreation Service, U. S. Department of the Interior, 1978.

LeDuc, M. Vonciel, for Schoolcraft County Historical Society. *Manistique*. Images of America series. Charleston, SC: Arcadia Publishing, 2009.

Lynts, Hazel, Nahma Township Historical Society. Letter providing dimensions and descriptive information on burner. June 2010. Copy in working file.

Mihalyo, Daniel. *Wood Burners*. NY: Princeton Architectural Press, 1997.

Munroe, T., & H. Park (Thomas Munroe and Hugh Park), Muskegon, MI. Refuse Burner. Patent No. 389,403. Issued Sept. 11, 1888.

Polk, R. L., & Co. *Michigan State Gazetteer and Business Directory*. Detroit, MI. 1897, 1899, 1901 editions.

Sanborn Fire Insurance Maps of Nahma (microfilm). 4/1888; 11/1893; 12/1899.

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Stiles, C. O. *A Souvenir of Delta County, Michigan.* Iron Mountain, MI, c. 1903.

Sources for a Sampling of Other Michigan Burners

Grayling Area Centennial Committee. *The First Hundred Years: An Introduction to the History of the Grayling Area.* Grayling, 1972. Pages 37, 38, 45.

Johanson, Bruce H. *This Land, the Ontonagon: A Short History of Ontonagon County, Michigan.* 2nd ed. Ontonagon: Ontonagon Herald Co., 1985. Page 107 (showing two examples).

LeDuc, M. Vonciel. *Manistique.* Images of America series. Charleston, SC: Arcadia Publishing, 2009. Pages 40, 49.

Norton, W. A. *W. A. Norton's Cadillac City Directory – an abridged version – Biographical Sketches of the Leading Citizens and Business Men.* Cadillac: Cadillac Printing Co., nd [reprint of 1900 edition]. Page 47.

Ruggles, Glenn, with Glenn Neumann. *Elk Rapids: The First Hundred Years, 1850-1950.* Commerce Twp.: Blue Heron Press, 2007. Pages 106, 115, 136.

Russell, Curran N., and Donna Degen Baer. *The Lumberman's Legacy.* Manistee: Manistee County Historical Society, 1954. Page 52.

Stiles (see above).

Previous documentation on file (NPS):

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

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other
- Name of repository: _____

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property Less than one

(Do not include previously listed resource acreage.)

UTM References

(Place additional UTM references on a continuation sheet.)

1 _____
Zone Easting Northing

3 _____
Zone Easting Northing

2 _____
Zone Easting Northing

4 _____
Zone Easting Northing

Verbal Boundary Description (Describe the boundaries of the property.)

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Square parcel 75 feet on each side with sides ranged east-west and north-south. Midpoint in center of burner, location marked by UTM reference.

Boundary Justification (Explain why the boundaries were selected.)

Includes the burner site. Future study, including archaeological work, may identify a significantly larger sawmill site that meets the national register criteria, but no archaeological work has been done to the present.

11. Form Prepared By

name/title Robert O. Christensen, national register coordinator
organization MI SHPO date Nov. 2010
street & number 702 W. Kalamazoo St. telephone 517/335-2719
city or town Lansing state MI zip code 48908-8240
e-mail christensenr@michigan.gov

Additional Documentation

Submit the following items with the completed form:

- **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. Key all photographs to this map.
- **Continuation Sheets**
- **Additional items:** (Check with the SHPO or FPO for any additional items.)

Photographs:

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Name of Property:

City or Vicinity:

County:

State:

Photographer:

Date Photographed:

Name of Property

County and State

Description of Photograph(s) and number:

1 of ____.

Property Owner:

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

name _____

street & number _____ telephone _____

city or town _____ state _____ zip code _____

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.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18 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 Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.



Bay De Noquet Co. Saw Mill, Nahnma, Mich.









