Form 60

LIGHT HOUSE BOARD
FEB 19 1909
NO. 10683

9th Cleveland

~~3rd~~

~~Detroit~~ DISTRICT

Department of Commerce and Labor

LIGHT-HOUSE ESTABLISHMENT

DESCRIPTION OF LIGHT-HOUSE TOWER,

BUILDINGS, AND PREMISES

AT

Buffalo Sixth Breakwater - South End.

Lake Erie

7 February, 1909

Filed 19 Febr. '09 -

Form 60

Tenth- DISTRICT

Department of Commerce and Labor

LIGHT-HOUSE ESTABLISHMENT

DESCRIPTION OF LIGHT-HOUSE TOWER,

BUILDINGS, AND PREMISES

AT

Buffalo Tooth Breakwater - South End.

Lake Erie.

February, 1909

NAME AND POSITION OF THE LIGHT-HOUSE AND LIGHT-STATION.

Bulfalo Inth Breakwater - South End :- 29'- 10 3/8" from the south easterly end of the Inth Breakwater, and on the northerly side of the main or north entrance to Bulfalo Harbor, N.Y.

1. By whom described, Chas. C. Bartlett, Chief Clerk and Norris M. Works, Superintendent.
2. Date of description, February, 1909
3. Distinguishing character of light or lights, Fixed Red.
4. Latitude of tower, 42 ° 52 ' 54" } Authority, U.S. Lake Survey Coast Charts
5. Longitude of tower, 78 ° 53 ' 45" } No. 1 Lake Erie - 1901-1904- Issued March 29-'04 - Cor. to Ea.

PREMISES—A DETAILED DESCRIPTION OF, EMBRACING—

6. Site of station—Public land, purchase, Military or Naval reservation, lease: On U.S. Breakwater in navigable waters.
7. Date of reservation,
8. Date of deed,
9. Date of permission to occupy,
10. Date of lease,
11. Area of the entire site, No particular area reserved, occupies end of breakwater.
12. Area inclosed, Not inclosed.
13. Character of surface soil,
14. Distance of tower from nearest high-water mark,
15. Inclosures to premises, Not inclosed.
16. Wharf or landing on premises, Steps in bankett side of breakwater near tower.
17. Road to landing or wharf, character of, and distance from tower,
18. Means by which the light-station may be reached, By public streets to foot Erie St., Bulfalo N.Y., thence by boat to light.

PREMISES—A DETAILED DESCRIPTION OF—CONTINUED.

19. Distance to the nearest public road, railroad station, or steamboat landing, and to which: 30 feet of Erie St., Buffalo, about 6/10 mile.

20. Distance to the nearest post office, 1 7/10 miles, air line, Buffalo, N.Y.

21. Distance to the nearest village or town, Ills.

22. Facilities for reaching the light-station by public conveyance, None.

23. Facilities for reaching the light-station by private conveyance from the nearest village, town, railroad station, or steamboat landing, and the distance: 6/10 mile by boat from foot Erie St. Buffalo.

24. Tower or other means used for supporting the lantern and apparatus, Bottle shaped metal structure inclosing hoisting apparatus and iron lantern.

25. Number of separate lights, One.

26. When first built or established, 1901-

27. When last thoroughly rebuilt, repaired, or renovated, —

28. Condition at this date, Good.

29. Shape of tower in plan, Circular

30. Form of tower—Cylindrical, conical, or pyramidal, Bottle Shaped.

31. Height of tower from base to ventilator ball of lantern, 24 ft. to focal plane.

32. Height of focal plane of lantern above mean high water (on sea and gulf coasts) or mean lake level on northern lakes and rivers: 36'-3"

33. Background of the light-house, upon which it is projected, as seen from the sea or lake: Dark colored buildings and smoke of city of Buffalo.

34. Color of tower, Lead and oil paint.

35. Color of tower, how produced:

36. Tower—Connected with keeper's dwelling, and how, or detached. ~~Not~~ connected. - Light kept by keeper of Buffalo Main Light - Dwelling 6/10 mile distant on South Pier.

37. Object—Seacoast, lake coast, bay, harbor, channel, or range; for general or local navigating purposes: Marks the S. end of South Breakwater & N. side of main or South Entrance and outer end of Lake Erie Entrance to Erie Basin and Black Rock Harbor.

38. Materials of which the tower is built: Iron.

39. General description, embracing— See Page 16 - Note.

40. Thickness of walls at base, 3/8 in.

41. Thickness of walls at parapet, 1/4 in.

42. Diameter of tower (inscribed, if polygonal) at base, 10 ft. 3/4 in.

PREMISES—A DETAILED DESCRIPTION OF—CONTINUED.

General description, embracing—Continued.

43. Diameter of tower (inscribed, if polygonal) at parapet, 2'-8"

44. Kind of stairway and steps, ladder, pulley and hoisting winch for lens lantern.

45. Number of landings of stairway, Outside ladder to give access to top of structure.

46. Size of glass for glazing tower windows, 1/4 in. plate glass, 14" dia.

47. Number of windows in tower, and size of sash, 4 bronze sash in cast iron circular windows.

48. Number of doors, One.

49. Kind of foundation and depth below the surface, } Concrete superstructure of breakwater
50. Character of soil at and surrounding the light-house, } resting on stone filled timber cribs,
51. Soil susceptible of being protected by grass, shrubbery, or trees: } which rest on stone filling in trench
No soil. } dredged in heavy boulder
clay nearly to rock.

52. Miscellaneous remarks upon tower and site:
See Note Pg. 16.

LANTERN AND LANTERN FIXTURES.

53. Order or class of lantern, No lantern, See Note - Pg. 16.

54. Polygonal or cylindrical,

55. Diameter, inscribed, to glass,

56. Number of sides in plan,

57. Vertical or helical bars,

58. Height glazed,

59. Number of plates in height,

60. Number of plates in each side,

61. Thickness of plates,

62. Size of different plates,

63. Number of storm panes of glass,

64. Unglazed side of lantern in plates and degrees of arc, Open on all sides. ; between what bearings (~~magnetic~~ true and *from seaward*),

65. Materials of which the lantern is constructed,

LANTERN AND LANTERN FIXTURES—CONTINUED.

66. Roof, See note- Pg. 16.

67. Ventilator ball, See note-Pg. 16.

68. Lightning-conductor spindle, brass, 22" long, bolted to top of hood.

69. Lightning conductor, of what material; how attached to spindle; how led, and how far below the surface of dry earth, or otherwise, as the case may be: No lightning conductor provided, structure is of iron, bolted to concrete base.

70. Balustrade and outside gallery, Outside fixed ladder to give access to top when necessary.

71. Lantern doors, and how fitted:

72. Floor of lantern—Of what materials:

73. Watchroom door leading into the lantern, and how fitted:

74. Parapet, inside diameter (inscribed, if polygonal),

VENTILATORS.

75. In parapet, wall, or lower part of lantern: Ventilator holes thru base of hood.

76. Lantern ladders for cleaning plate glass, outside:

77. Curtain hooks inside of lantern—How fitted:

WATCHROOM.

78. How fitted:

WATCHROOM—CONTINUED.

79. Bell wires, or speaking tubes, or telephones for calling relief keepers—Kind:

80. Where led:

ILLUMINATING APPARATUS, ETC.

81. Name of maker, Barbier, Benard & Turenne. Year made,

82. Marks and number on apparatus, Lens Lantern.

83. Order of apparatus, Lens Lantern Inside diameter (inscribed circle) of central drum, 11 3/4"

84. Characteristic of light shown by apparatus, Fixed Red.

85. If movable; time of revolution,

86. Intervals between flashes,

87. Duration of flash,

88. If fixed, or fixed varied by flashes; state arc of each fixed part in degrees: 360°.

89. Number of panels in the lens apparatus, 4

90. Number of flash panels, ——; arc of each, in degrees, 90°

91. Number of elements in each panel of central drum of the lens, 1

92. Number of prisms in each panel *above* the central drum of the lens, 3

93. Number of prisms in each panel *below* the central drum of the lens, 3

94. How are the flashes produced—By the whole apparatus revolving ——; by revolving belt only ——;
if by panels of vertical elements revolving outside of fixed lens, state the number of such panels:

Describe how:

95. If by vertical elements, (*a*) state the number in each panel, ; (*b*) and the number of elements of fixed lens covered by the panel:

ILLUMINATING APPARATUS, ETC.—CONTINUED.

96. Pedestal, Lens stands on top of iron service table and cupboard, when lowered into structure, 30" high.

97. Service table, Iron cupboard 30"x24"

98. Tube leading through the center of the upper metal ring of the lens into the ventilator ball, to carry off the gases of combustion and to assist in producing a proper draft in the lantern—Of what material, diameter, and how fitted and connected with damper tube when in place: Not required.

99. If revolving, revolving machinery:

100. Revolving on chariot, mercury float, or balls:

101. If a chariot, describe it and state the number and size of each pattern of wheels in it:

102. If on balls, describe the construction of the ball-raceways, whether flat surface, or semicircular or V grooves:

103. State number of balls: ; diameter of balls,

104. Revolving cord or chain—How led:

105. Length of drop tube,

106. Length of time revolving machinery will run after one winding:

107. How is the machinery protected:

ILLUMINATING APPARATUS, ETC.—CONTINUED.

108. How regulated? Describe:

IF COLORED LIGHT—

109. How is the color produced? Describe: Ruby chimney.

110. Red sectors—Between what bearings (from seaward); magnetic, if on sea or gulf coasts; true on northern lakes and rivers:

111. State where colored glass is attached, if to illuminating apparatus or to the lantern:

112. If colored glass is inside of illuminating apparatus describe its form:

LAMPS AND BURNERS.

113. Description of lamp in use and number of wicks to burner: Fifth order lamps, ring shaped tank, with capacity for 3 gal., 5 days supply of oil on top of lantern, 1 wick, 1¼" dia.

114. Number of ~~spare~~ lamps at the station, two.

115. Number of spare lamp burners at the station, none.

CLOSETS IN TOWER.

116. How fitted and used: Iron closet and service table in base of structure.

OIL HOUSE OR ROOM.

117. Describe where placed and how fitted: Oil stored in same oil house as ~~that~~ for Buffalo Main Light, ⅓ mile distant, on South Pier.

CLOSETS AND STOREROOMS.

118. Where placed, how fitted and used:

119. Damp or dry, suited or unsuited to the purposes for which they were designed:

FOG SIGNAL.

120. Kind and character of apparatus: None.

121. How much time is required to start the signal?

122. Where, or by whom, made;

Year made,

123. Characteristic distinction of:

Blast / sec.	*Silent interval* / sec.	*Blast* / sec.	*Silent interval* / sec.

124. What parts of the fog-signal machinery are in duplicate?

125. If a bell, state (*a*) weight, lbs.; (*b*) metal, ; (*c*) diameter, ; (*d*) height, ;

(*e*) if struck by clockwork, state time it will run with one winding:

126. If a steam signal, (*a*) describe boiler:

(*b*) Kind:

(*c*) Flue-tube or water-tube,

(*d*) Dimensions: length, diameter,

(*e*) Number and length of tubes,

(*f*) Diameter of tubes,

(*g*) Furnace: Kind, ; length, ; width, ; height,

(*h*) Total heating surface in square feet,

(*i*) Grate surface in square feet,

(*j*) Number of grate bars,

FOG SIGNAL—CONTINUED.

(*k*) Kind of grate bars,

(*l*) Kind of coal or other fuel generally used,

(*m*) Kind of safety valve,

(*n*) Maximum pressure the boiler is capable of,

(*o*) Usual working pressure,

(*p*) Diameter of smokestack,

(*q*) Height of smokestack from grate,

(*r*) Height or length of steam drum, ; diameter,

(*s*) Kind of covering or jacket,

(*t*) Present condition of boiler,

(*u*) When built,

(*v*) Where built,

(*w*) By whom built,

(*x*) Is there a heater? ; what kind? ; what size?

How much does its use reduce the time of starting the fog signal?

127. If a steam engine is used, kind: Number of revolutions per minute,

(*a*) Diameter of cylinder,

(*b*) Stroke of piston,

(*c*) Size of steam pipe,

(*d*) When built,

(*e*) Where built,

(*f*) By whom built,

128. Whistle, trumpet, or siren, pressure at which blown,

129. Diameter of whistle, ; height, ; distance between orifice and edge of whistle, ; single tone, ; chime,

130. Disk or cylindrical siren, ; diameter of revolving part, ; when made, ; by whom made, ; number, width, and length of ports, ; revolutions per minute, ; type of governor, ; condition of revolving part,

131. Daboll trumpet, . Reed, ; length, ; breadth, ; thickness at base, ; thickness at tip,

132. Trumpet: Length, ; diameters, ; material,

133. Timing device:

FOG SIGNAL—CONTINUED.

134. Height of whistle or trumpet above mean high water,

135. Direction, by compass, in which trumpet points,

136. If signal is blown by compressed air, describe compressing machinery:

Kind of engine, ; by whom made, ;

when made, ; nominal size, horsepower, ;

kind of compressor, ; name of maker,

State if compressor is on same bed and geared with engine, or separate and belt-driven:

137. Location, with reference to the light-house, to a particular danger or channel, or to the special object for establishing it:

138. Distance and direction from the light-house,

139. Water supply for it,

140. How it is reached from the light-house:

141. Description of fog-signal building or buildings:

DWELLINGS FOR KEEPERS.

142. Location, with reference to the light-house tower: This light cared for by keeper of Bulfalo Main Light. See ~~that~~ description.

143. Coloring:

144. Materials of which built,

145. Number of rooms in each dwelling,

146. Number of keepers and assistants to each dwelling,

147. Outhouses,

148. Coloring:

149. Paths or walks on the premises,

DWELLINGS FOR KEEPERS—CONTINUED.

150. Area of premises inclosed, and how:

151. Area of garden,

152. Area in timber or shrubbery,

153. Area susceptible of profitable cultivation,

154. Area cultivated or prepared for cultivation,

155. Character of adjacent surrounding country—Soil, sandy, clay, marsh, swamp, wood, fast ground, or shifting sands:

WATER FOR FOG SIGNAL, DRINKING, AND DOMESTIC USES GENERALLY.

156. How procured, See Buffalo turn Lt. Sta.

157. Quality,

158. Quantity ample or not for the station at all seasons of the year,

159. Liable or not to be injured by the inroads of storm tides and seas,

160. If rain water in tanks or cisterns, what precautions have been taken to insure its purity?

161. Capacity of tanks or cisterns, and where placed:

162. Tanks or cisterns—Of what material made:

WATER FOR FOG SIGNAL, DRINKING, AND DOMESTIC USES GENERALLY—CONTINUED.

163. Is there a distilling apparatus at the station?

Name of maker:

Capacity, ; when installed, ; condition, ;

efficiency,

164. If from a well, describe and give depth:

165. Diameter,

166. Lined or not,

167. Water obtained by pump or bucket,

168. Distance from keeper's dwelling,

HEALTHFULNESS OF THE LIGHT-STATION AND VICINITY.

169. General opinion in regard to the healthfulness or unhealthfulness of the light-station and vicinity: Healthful.

170. Diseases—What are most prevalent at the station and in the vicinity?

171. Do they prevail at particular seasons of the year, or not?

172. Are there any local causes, such as swamps, marshes, etc., in the immediate vicinity of the light-house which are likely to be the cause of these diseases?