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Form 60

2-130

Second LIGHTHOUSE DISTRICT

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

DESCRIPTION

OF

Spectacle Island

INSTRUCTIONS

This form is to be filled out for new stations as established, and for present stations which have not heretofore been described. When changes are made at existing stations affecting the description previously given, pages containing the revised data should be promptly forwarded. The use of this form should be limited to stations having resident keepers.

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DESCRIPTION OF LIGHT STATION.

1. By whom described Geo. E. Eaton, Supt., date Oct. 6, 1927.

STATION.

2. Name of station, Spectacle Island

3. Characteristic of light, Range - reflectors 2 F.R.,

4. Geographical position of light; Front Latitude, 42° 19' 40"; longitude, 70° 59' 03". Front

5. Location, On east bank, north part of Spectacle Island, Boston Harbor, Mass.

PREMISES.

6. Origin of title to site of station (public land, purchase, lease, military or naval reservation), Acquired by condemnation proceedings

7. Date of reservation, deed, lease, or permission to occupy, decree of court July 3, 1896

8. Area of the entire site, ~~1.6 acres~~; (*b*) area inclosed, 1.6 acres, (*c*) type of fence, wire

9. Distance of tower of nearest high-water mark, ~~Front 20 feet, rear 80 ft.~~

10. Wharf or landing on premises, None

11. Means by which the light station may be reached and distance to nearest post office or town, with name, Boat, 3 miles to South Boston

12. Tower or other means used for supporting the lantern and apparatus, Two towers

13. Number of separate lights, Two

14. When first built or established, 1897

PREMISES—Continued.

15. When last thoroughly rebuilt, repaired, or renovated, 1920

16. Height of focal plane of lantern above mean high water (on sea and gulf coasts) or mean lake level on northern lakes and rivers, Front 53; rear 70 feet

17. Background of the lighthouse, upon which it is projected, as seen from seaward, Sky

18. Color of tower, and how produced, White, paint

19. Tower—Connected with keeper's dwelling, and how; or detached, Detached

20. Purpose of aid—Seacoast, lake coast, bay, harbor, channel, or range; for general or local navigation, Range for local navigation.

21. Materials of which the tower is built, Wood

22. Kind of stairway and steps, Wooden, winding

23. Size of glass for glazing tower windows, 15 3/4" x 14"

24. Number of windows in tower, and size of sash, 2 in front 3 in rear 19 3/4 x 31 1/2

25. Number and size of doors, One each tower 2'-6" x 6'-3"

26. General remarks upon tower and site, Wooden towers shingled on outside plastered inside Foundations of towers on nearby same level.

LANTERN AND LANTERN FIXTURES.

27. Order or class of lantern, 4th, 5th and 6th — 1 lantern each tower

28. If polygonal, state number of sides; if cylindrical, state diameter, Eight sides

29. Vertical or helical bars, Vertical; thickness of bars, 1 1/8"; height glazed, 35 1/2"

30. Number of plates in height, One; in each side, One

31. Thickness and size of plates, 1/4" thick 34" x 36"

32. Unglazed side of lantern in plates and degrees of arc, Seven sides 315°; between what bearings (true and from seaward), —

33. Materials of which the lantern is constructed, Cast iron

34. Roof, Cast iron

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LANTERN AND LANTERN FIXTURES—Continued.

35. Ventilator ball, Cast iron

36. Lightning-conductor spindle, Yes

37. Balustrade and outside gallery, Yes

38. Lantern doors, and how fitted, 1/4" sheet steel hinged to swing out

39. Floor of lantern—Of what materials, Wood canvassed

40. Watch-room door leading into lantern, and how fitted, None

VENTILATORS.

41. In parapet, wall, or lower part of lantern, Lantern parapet

42. Lantern ladders for cleaning plate glass, outside, None

43. Curtain hooks inside of lantern—How fitted, Screwed

WATCH ROOM.

44. How fitted, None

45. Bell wires, speaking tubes, or telephones for calling relief keepers—Kind, None

46. Where led, —

ILLUMINATING APPARATUS, ETC.

47. Kind of apparatus, 23" Par reflectors; intensity in English candles, Each 750

48. Name of maker, 3rd District; year made, 1920 known

49. Marks and number on apparatus, None

50. Order of apparatus, —; inside diameter (inscribed circle, tangent to glass) of central drum, —

51. **If the apparatus is a parabolic mirror,** state (*a*) diameter of opening, 22"; (*b*) depth of mirror, 13 1/4"; (*c*) its focal length, —; (*d*) material of which it is made, Copper silver plated

52. **If revolving,** time of revolution, —

(*a*) duration of flash, — sec.; (*b*) duration of eclipse, — sec.

53. **If fixed,** or fixed varied by flashes, state arc of each fixed part in degrees, Fixed;

(*a*) duration of fixed light, — sec.; (*b*) eclipse, — sec.; (*c*) flash, — sec.

ILLUMINATING APPARATUS, ETC.—Continued.

54. Number of panels in the lens apparatus, None

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

56. Number of elements in each panel of central drum of lens, —

57. Number of prisms in each panel *above* central drum of lens, —; are they fixed or flash? —

58. Number of prisms in each panel *below* central drum of lens, —; are they fixed or flash? —

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

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

61. **If light is occulting,** state (*a*) the characteristic, —

(*b*) Between what time limits may characteristic be varied without structural changes in mechanism? —

(*c*) Are eclipses produced by sleeve, revolving screens, or valve (if gaslight)? —

(*d*) Size of sleeve and amplitude of movement, —

(*e*) Axis of rotation of screens, horizontal or vertical, —; (*f*) relation of axis to vertical axis of illuminating apparatus, —

(*g*) Do the screens revolve as parts, or independently, of illuminating apparatus? —

(*h*) If about vertical axis, how many in circumference, —; (*i*) time required for complete revolution, —; (*j*) form, —;

(*k*) how mounted (see Questions 62–65), —;

(*l*) if actuated by clockwork, state order and maker, —;

(*m*) date made, —

If occultation is effected by valve, state (*n*) name of maker, —;

(*o*) pattern, —;

(*p*) does it operate reliably? —

62. **If revolving,** does the apparatus revolve on chariot wheels, mercury float, or balls? —

63. **If a chariot,** describe it and state the number and size of each pattern of wheels in it, —

ILLUMINATING APPARATUS, ETC.—Continued.

64. **If on mercury float,** give (*a*) inside diameter of trough, —; (*b*) inside depth of trough, —; (*c*) outside diameter of float, —; (*d*) depth of float, —; (*e*) weight of mercury required, in pounds, —; (*f*) how often mercury is renewed? —

65. **If on balls,** (*a*) describe the construction of the ball-raceways, whether they are flat surface or semicircular or V grooves, —; (*b*) is a cage used to separate balls? —; (*c*) state number of balls, —; (*d*) diameter of balls, —

66. Clock cord or chain, kind, —; size, —; length, —; how led, —; diam. and length of clock drum, —

67. Length and inside dimensions of drop tube or weight box, —; clock weight, — pounds.

68. Length of time clock will run after one winding, —

69. Does clock drive apparatus while being rewound? —

70. How is the machinery protected? —

71. How regulated? —

72. Describe the pedestal, Wooden Bench

73. Lens protector—Is there one? —; kind, —

74. Draft tube leading into ventilator ball—Of what material, diameter, and how fitted and connected with damper tube when in place, None

75. **If colored light,** (*a*) how is the color produced? Red lamp chimney

(*b*) state where colored glass is attached, if to illuminating apparatus or to lantern, None

76. If colored glass is inside of illuminating apparatus, describe its form, None

77. Red sectors—Between what bearings, true (from seaward), None

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LAMPS, BURNERS, ETC.

78. Description of lamp: (*a*) give order, Locomotive Headlight; (*b*) kind of illuminant, Kerosene; (*c*) intensity in English candles, —

If oil, or oil vapor:

(*a*) number of wicks, or mantels, to burner, One;
(*b*) diameter of outside wick, 1 3/8"; (*c*) diameter of mantel, —;
(*d*) if more than one mantel, also diameter of circumscribing circle, —

If gaslight:

(*e*) state kind, None; (*f*) number of burners, if more than one burner in group, —; (*g*) kind of burner, —;
(*h*) candlepower per burner, —; (*i*) total candlepower of group, —;
(*j*) size of burner in cubic feet of gas per hour, —;
(*k*) consumption of gas per hour, — cubic feet; (*l*) how is gas obtained?

If gas is generated at station:

(*m*) describe generator, None;
(*n*) state name of maker, —;
(*o*) date of pattern, —; (*p*) maximum capacity per hour, — cubic feet.

If compressed gas is used:

(*q*) describe container and give number in service, —; spare —;
(*r*) capacity, — cubic feet of free gas; (*s*) to what pressure charged, — lbs.; (*t*) how is supply renewed? —;
(*u*) if by substitution of full for empty container, at what intervals? —

79. Number of spare lamps at station, Two
80. Number of spare lamp burners at station, Two

CLOSETS IN TOWER.

81. How fitted and used, None

OIL HOUSE OR ROOM.

82. Describe (*a*) where placed and how fitted, 75 ft. easterly of east tower - no fittings;
(*b*) inside dimensions, 11'9"x9'9"; (*c*) materials of which built, Bricks;
(*d*) capacity in 5-gallon cans, 400

CLOSETS AND STOREROOMS.

83. Where placed, how fitted and used, None

84. Damp or dry, suited or unsuited to the purpose for which they were designed, —

FOG SIGNAL.

85. Kind and character of apparatus, None

86. How much time is required to sound the signal? —; how long may the signal sound its characteristic with the quantity of air stored under pressure? —

87. Characteristic:

If whistle, trumpet, or siren:				If bell:			
Blast sec.	Silent sec.	Blast sec.	Silent sec.	strokes	Silent sec.	strokes	Silent sec.

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

89. Location, with reference to lighthouse, to a particular danger or channel, or to the special object for which established, —

90. Distance and direction, true, from lighthouse, —
91. Water supply for it, —
92. How is it reached from the lighthouse? —

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FOG SIGNAL—Continued.

93. Description of fog-signal building or buildings, None

94. If a bell, state (*a*) weight, None lbs.; (*b*) metal, —; (*c*) diameter, —; (*d*) height, —; (*e*) if struck by clockwork, state time it will run with one winding, —; (*f*) maker and date, —; (*g*) weights for operating, — lbs.

95. If a steam signal, describe boiler: (*a*) type, None; (*b*) length, —; (*c*) diameter, —; (*d*) horsepower, —; (*e*) maker and date, —

(*f*) Is there a heater? —; what kind? —; what size? —; how much does its use reduce the time of starting the fog signal? —

96. If a steam engine is used: (*a*) kind, None; (*b*) number of revolutions per minute, —; (*c*) diameter of cylinder, —; (*d*) stroke of piston, —; (*e*) horsepower, —; (*f*) maker and date, —

97. If internal combustion engines are used: (*a*) kind of engine, None; (*b*) maker, —; (*c*) date, —; (*d*) nominal size, —; (*e*) horsepower, —; (*f*) fuel used, —; (*g*) how started, —; (*h*) kind of compressor, —; (*i*) maker and date, —

State if compressor is on same bed and geared with engine, or separate and belt-driven, or both pistons on same rod, —; if geared or belt-driven, state ratio, —

Describe compressor machinery, (*a*) diameter of cylinder, —; (*b*) stroke of piston, —; (*c*) number of revolutions per minute, —; (*d*) character and size of air-inlet valves, —; (*e*) kind of unloader, —; (*f*) diameter of delivery pipe, —

FOG SIGNAL—Continued.

98. (*a*) Number air receivers, None; (*b*) diameter, —; (*c*) height, —; (*d*) capacity cubic feet, each, —; (*e*) pressure in each, —; (*f*) make of reducing valve, if used, —; (*g*) remarks, —

99. If whistle, trumpet, or siren, pressure at which blown, None

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

101. If 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, —

102. If Daboll trumpet: Class, None; reed: length, —; breadth, —; thickness at base, —; thickness at tip, —

103. If trumpet: Length, None; diameters, —; material, —

104. Timing device, —

105. Height of whistle or trumpet above mean high water, —

106. Direction, *true*, in which trumpet points, —

107. Pressure and recording gauge, —

DWELLINGS FOR KEEPERS.

108. Location with reference to lighthouse tower, Northwesterly of front tower

109. Coloring, White

110. Materials of which built, Wood

111. Number of dwellings, One; number of rooms in each, Six

112. Describe heating plant, Direct hot water

113. Number of keepers and assistants in each dwelling, One keeper

114. Which keepers are furnished quarters? The keeper

115. Which keepers are not furnished quarters? —

116. Outhouses, Fuel house; coloring, White

117. Paths or walks on the premises, Wooden walks

118. Area susceptible of profitable cultivation, —; area cultivated or prepared for cultivation, small garden

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DWELLINGS FOR KEEPERS—Continued.

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

120. Furnish following data for stoves, kitchen sink, sink pump, and lamps in quarters:

Articles.	Keeper.	1st Assistant Keeper.	2d Assistant Keeper.	3d Assistant Keeper.
Stove, maker,	Magee Grand			
Stove, size,	77			
Sink, maker,	Not known			
Sink, size,	22"x36"			
Pump, maker,	Douglas			
Pump, size,	No. 2			
LAMPS. (Give name, number, and make of all lamps in such set of quarters.)	1 Table lamp and 2 hand lamps Make L.H.L.			

WATER FOR FOG SIGNAL, DRINKING, ETC.

121. How procured, Rain water from roof of dwelling

122. Quality, Good

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

124. Liable or not to be injured by the inroads of storm tides and seas, No

125. If rain water in tanks or cisterns, what precautions have been taken to insure its purity? Cistern cleaned frequently

126. Capacity of tanks or cisterns, and where placed, 2000 gals.

127. Tanks or cisterns—Of what material made, Bricks, cement plastered on inside.

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WATER FOR FOG SIGNAL, DRINKING, ETC.—Continued.

128. Is there a distilling apparatus at the station? None.
Name of maker and date, —;
capacity, —; when installed, —; condition, —;
efficiency, —

129. If from a well, describe and give depth, None

130. Diameter, —; lined or not, —

131. Water obtained by pump or bucket, —; what power is used? —

132. Distance from keeper's dwelling, —

HEALTHFULNESS OF STATION.

133. General opinion in regard to the healthfulness of the light station and vicinity, Healthful

134. Diseases—What are most prevalent at the station and in the vicinity? None.

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

136. Are there any local causes, such as swamps, marshes, etc., in the immediate vicinity of the lighthouse which are likely to be the cause of these diseases? No

137. Would draining or other artificial means employed on the lighthouse premises be likely to improve the sanitary condition of the light station? No

BOATS.

138. Furnish following data for each boat at station: No boats

Numbers.	Type.	Length.	Width.	When Built.	Date Received at Station.	Is Boat Fitted with Sails?	Suited to Work Performed.

BOATS—Continued.

139. **If power boat,** kind of engine, None; horsepower, —;
maker of engine, shop number, and date, —
(*a*) type, size, number, and maker's name of spare coil, —
(*b*) type, size, number, and maker's name of magneto, —
(*c*) type and number of batteries, —
(*d*) propeller wheel, diameter, —; pitch, —

140. Where are boats kept at station? —

LANDING, WHARF, BOATHOUSE, AND ROAD TO THE LIGHTHOUSE.

141. Description, None

142. Distance and direction of landing from lighthouse, —

143. Hoisting engine, what kind? None;
diameter of cylinder, —; number of revolutions per minute, —;
stroke, —; kind of boiler, —;
maker and date, —

144. General Remarks: Premises and structures are in good condition. - Range lights changed from lens to reflectors Aug. 15, 1924

Geo E Eaton
Superintendent

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