

WAC 468-240-175 Obstruction lighting standards—Towers, poles, and similar obstructions. Towers, poles and similar obstructions should be lighted in accordance with the following specifications:

(1) **Specification "A-1."** When the particular obstruction is not more than 150 feet in over-all height above ground, or water if so situated.

(a) There should be installed at the top of the obstruction at least two lights, each light consisting of a lamp of at least 100 watts enclosed in aviation red obstruction light globes. These lights should burn simultaneously and should be positioned so as to insure unobstructed visibility of at least one of the lights from aircraft at any normal angle of approach.

(2) **Specification "A-2."** When the particular obstruction is more than 150 feet but not more than 300 feet in over-all height above ground, or water if so situated.

(a) There should be installed at the top of the obstruction a flashing 300 mm electric code beacon equipped with two lamps and aviation red color filters. The two lamps of the beacon should burn simultaneously and each lamp should be at least 500 watts. Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the obstruction and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any normal angle of approach, there should be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons at any normal angle of approach.

(b) At the approximate mid point of the over-all height of the obstruction, there should be installed at least two lights, each light consisting of a lamp of at least 100 watts, enclosed in aviation red obstruction light globes. Each light should be placed on diagonally or diametrically opposite positions of the obstruction and mounted so as to insure unobstructed visibility of at least one light from aircraft at any normal angle of approach.

(c) In case of a triangular or rectangular shaped tower, the lights at the mid level should be mounted so as to insure unobstructed visibility of at least one light from aircraft at any normal angle of approach, or a light should be installed on each corner of the tower at this level.

(3) **Specification "A-3."** When the particular obstruction is more than 300 feet but not more than 450 feet in over-all height above ground, or water if so situated.

(a) There should be installed at the top of the obstruction a flashing 300 mm electric code beacon equipped with two lamps and aviation red color filters. The two lamps of the beacon should burn simultaneously and each should be at least 500 watts. Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the obstruction and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any normal angle of approach, there should be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons from aircraft at any normal angle of approach.

(b) On levels at approximately two-thirds and one-third or the over-all height of the obstruction, there should be installed at least two lights, each light consisting of a lamp of at least 100 watts, enclosed in aviation red obstruction light globes. Each light should be

placed on diagonally or diametrically opposite positions of the obstruction and mounted so as to insure unobstructed visibility of at least one light at each level from aircraft at any normal angle of approach.

(c) In case of a triangular or rectangular shaped tower, the lights at the two-thirds and one-third levels should be mounted so as to insure unobstructed visibility of at least one light on each level from aircraft at any normal angle of approach, or a light should be installed on each corner of the obstruction at each level.

(4) **Specification "A-4."** When the particular obstruction is more than 450 feet but not more than 600 feet in over-all height above ground, or water if so situated.

(a) There should be installed at the top of the obstruction a flashing 300 mm electric code beacon equipped with two lamps and aviation red color filters. The two lamps of the beacon should burn simultaneously and each should be at least 500 watts. Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the obstruction and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any normal angle of approach, there should be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons from aircraft at any normal angle of approach.

(b) At approximately one-half of the over-all height of the obstruction, a similar flashing 300 mm electric code beacon should be installed in such a position within the obstruction proper that the structural members will not impair visibility of this beacon from aircraft at any normal angle of approach. In the event this beacon cannot be installed in a manner to insure unobstructed visibility of it from aircraft at any normal angle of approach, there should be installed two such beacons. Each beacon should be mounted on the outside of diagonally opposite corners or opposite sides of the obstruction at the prescribed height.

(c) On levels of approximately three-fourths and one-fourth of the over-all height of the obstruction one or more lights, each light consisting of a lamp of at least 100 watts, enclosed in aviation red obstruction light globes, should be installed on each outside corner of the obstruction at each level.

(5) **Specification "A-5."** When the particular obstruction is more than 600 feet but not more than 750 feet in over-all height above ground, or water if so situated.

(a) There should be installed at the top of the obstruction a flashing 300 mm electric code beacon equipped with two lamps and aviation red color filters. The two lamps of the beacon should burn simultaneously and each should be at least 500 watts. Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the obstruction and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any normal angle of approach, there should be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons from aircraft at any normal angle of approach.

(b) At approximately two-fifths of the over-all height of the obstruction, a similar flashing 300 mm electric code beacon should be installed in such a position within the obstruction proper that the structural members will not impair visibility of this beacon from aircraft at any normal angle of approach. In the event this code beacon

cannot be installed in a manner to insure unobstructed visibility from aircraft at any normal angle of approach, there should be installed two such beacons at this level. Each beacon should be mounted on the outside of diagonally opposite corners or opposite sides of the obstruction at the prescribed height.

(c) On levels at approximately four-fifths, three-fifths and one-fifth of the over-all height of the obstruction one or more lights, each light consisting of a lamp of at least 100 watts, enclosed in aviation red obstruction light globes should be installed on each outside corner of the obstruction at each level.

(6) **Specification "A-6."** When the particular obstruction is more than 750 feet but not more than 900 feet in over-all height above ground, or water if so situated.

(a) There should be installed at the top of the obstruction a flashing 300 mm electric code beacon equipped with two lamps and aviation red color filters. The two lamps of the beacon should burn simultaneously and each should be at least 500 watts.

(b) Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the obstruction and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any normal angle of approach, there should be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons from aircraft at any normal angle of approach.

(c) At approximately two-thirds and at approximately one-third of the over-all height of the obstruction, a similar flashing 300 mm electric code beacon should be installed in such a position within the obstruction proper that the structural members will not impair visibility of this beacon from aircraft at any normal angle of approach. In the event these electric code beacons cannot be installed in a manner to insure unobstructed visibility from aircraft at any normal angle of approach, there should be installed two such beacons at each level. Each beacon should be mounted on the outside of diagonally opposite corners or opposite sides of the obstruction at the prescribed heights.

(d) On levels at approximately five-sixths, one-half and one-sixth of the over-all height of the obstruction one or more lights, each light consisting of a lamp of at least 100 watts, enclosed in aviation red obstruction light globes should be installed on each outside corner of the obstruction at each level.

(7) **Specification "A-7."** When the particular obstruction is more than 900 feet but not more than 1050 feet in over-all height above ground, or water if so situated.

(a) There should be installed at the top of the obstruction a flashing 300 mm electric code beacon equipped with two lamps and aviation red color filters. The two lamps of the beacon should burn simultaneously and each should be at least 500 watts. Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the obstruction and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any normal angle of approach, there should be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons from aircraft at any normal angle of approach.

(b) At approximately four-sevenths, and at approximately two-sevenths of the over-all height of the obstruction, a similar flashing

300 mm electric code beacon should be installed in such a position within the obstruction proper that the structural members will not impair visibility of this beacon from aircraft at any normal angle of approach. In the event these electric code beacons cannot be installed in a manner to insure unobstructed visibility from aircraft at any normal angle of approach, there should be installed two such beacons at each level. Each beacon should be mounted on the outside of diagonally opposite corners or opposite sides of the obstruction at the prescribed heights.

(c) On levels at approximately six-sevenths, five-sevenths, three-sevenths and one-seventh of the over-all height of the obstruction one or more lights consisting of a lamp of at least 100 watts, enclosed in aviation red obstruction light globes should be installed on each outside corner of the obstruction at each level.

(8) **Specification "A-8."** When the particular obstruction is more than 1050 feet but not more than 1200 feet in over-all height above ground, or water if so situated.

(a) There should be installed at the top of the obstruction a flashing 300 mm electric code beacon equipped with two lamps and aviation red color filters. The two lamps of the beacon should burn simultaneously and each should be at least 500 watts. Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the obstruction and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any normal angle of approach, there should be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons from aircraft at any normal angle of approach.

(b) At approximately three-fourths, one-half and one-fourth of the over-all height of the obstruction, a similar flashing 300 mm electric code beacon should be installed in such a position within the obstruction proper that the structural members will not impair visibility of this beacon from aircraft at any normal angle of approach. In the event these electric code beacons cannot be installed in a manner to insure unobstructed visibility from aircraft at any normal angle of approach, there should be installed two such beacons at each level. Each beacon should be mounted on the outside of diagonally opposite corners or opposite sides of the obstruction at the prescribed heights.

(c) On levels at approximately seven-eighths, five-eighths, three-eighths and one-eighth of the over-all height of the obstruction one or more lights, each light consisting of a lamp of at least 100 watts, enclosed in aviation red obstruction light globes should be installed on each outside corner of the obstruction at each level.

(9) **Specification "A-9."** When the particular obstruction is more than 1200 feet but not more than 1350 feet in over-all height above ground, or water if so situated.

(a) There should be installed at the top of the obstruction a flashing 300 mm electric code beacon equipped with two lamps and aviation red color filters. The two lamps of the beacon should burn simultaneously and each should be at least 500 watts. Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the obstruction and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any normal angle of approach, there should be installed two such beacons positioned so as

to insure unobstructed visibility of at least one of the beacons from aircraft at any normal angle of approach.

(b) At approximately two-thirds, four-ninths and two-ninths of the over-all height of the obstruction, a similar flashing 300 mm electric code beacon should be installed in such a position within the obstruction proper that the structural members will not impair visibility of this beacon from aircraft at any normal angle of approach. In the event these electric code beacons cannot be installed in a manner to insure unobstructed visibility from aircraft at any normal angle of approach, there should be installed two such beacons at each level. Each beacon should be mounted on the outside of diagonally opposite corners or opposite sides of the obstruction at the prescribed heights.

(c) On levels at approximately eight-ninths, seven-ninths, five-ninths, one-third and one-ninth of the over-all height of the obstruction one or more lights, each light consisting of a lamp of at least 100 watts, enclosed in aviation red obstruction light globes should be installed on each outside corner of the obstruction at each level.

(10) **Specification "A-10."** When the particular obstruction is more than 1350 feet but not more than 1500 feet in over-all height above ground, or water if so situated.

(a) There should be installed at the top of the obstruction a flashing 300 mm electric code beacon equipped with two lamps and aviation red color filters. The two lamps of the beacon should burn simultaneously and each should be at least 500 watts. Where a rod or other construction of not more than 20 feet in height and incapable of supporting this beacon is mounted on top of the obstruction and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any angle of approach, there should be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons from aircraft at any normal angle of approach.

(b) At approximately four-fifths, three-fifths, two-fifths and one-fifth of the over-all height of the obstruction, a similar flashing 300 mm electric code beacon should be installed in such a position within the obstruction proper that the structural members will not impair visibility of this beacon from aircraft at any normal angle of approach. In the event these electric code beacons cannot be installed in a manner to insure unobstructed visibility from aircraft at any normal angle of approach, there should be installed two such beacons at each level. Each beacon should be mounted on the outside of diagonally opposite corners or opposite sides of the obstruction at the prescribed heights.

(c) On levels at approximately nine-tenths, seven-tenths, one-half, three-tenths and one-tenth of the over-all height of the obstruction one or more lights, each light consisting of a lamp of at least 100 watts, enclosed in aviation red obstruction light globes should be installed on each outside corner of the obstruction at each level.

(11) **Specification "A-11."** Towers and similar obstructions which are more than 1500 feet in over-all heights above ground, or water if so situated, will be given special aeronautical study to determine the proper manner in which to obstruction light them to provide adequate protection for air commerce.

[Statutory Authority: Chapter 47.68 RCW. WSR 96-17-018 (Order 164), recodified as § 468-240-175, filed 8/13/96, effective 9/13/96; O.M.&L. standards (part), filed 9/13/61.]