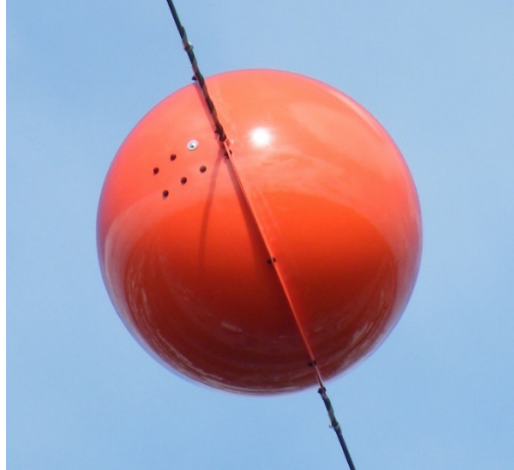


## Aerial Warning Spheres



### 1. Scope

This standard covers the requirements for aerial warning spheres, also known as aircraft marker balls. This standard applies to the following Seattle City Light (SCL) stock numbers:

<b>Stock No.</b>	<b>Description</b>
014031	20" aerial warning sphere
014028	36" aerial warning sphere

### 2. Application

Aerial warning spheres are used for visual identification of overhead wires. Warning spheres attach to overhead wires as required by Federal Aviation Administration (FAA) regulations, jurisdictional permits, or policies.

Aerial warning spheres are typically used around airports, heliports, and extensive spans that cross canyons, lakes, and rivers.

36-in aerial warning spheres are applicable for system voltages up to 230 kV. This includes all overhead ground and static wires used within the SCL service territory.

See SCL 9171.11, "Aerial Warning Device Applications" for more information.

### 3. Industry Standards

Aerial warning spheres shall meet the applicable requirements of the following industry standards.

**FAA AC 70/7460-1L**; Obstruction Marking and Lighting

**U.S. Federal Standard 595**; Color 12197—International Orange or Aviation Orange

Standards Coordinator  
Ponet Neuansourinh

Standards Supervisor  
John Shipek

Unit Director  
Darnell Cola



#### 4. Requirements

All deliverables shall be free of gouges, cracks, and sharp corners or points.

Aerial warning spheres shall be solid aviation orange or international orange in color per Federal Standard 595, color 12197.

36-in aerial warning spheres shall provide corona protection for line-to-ground voltages up to 220 kV.

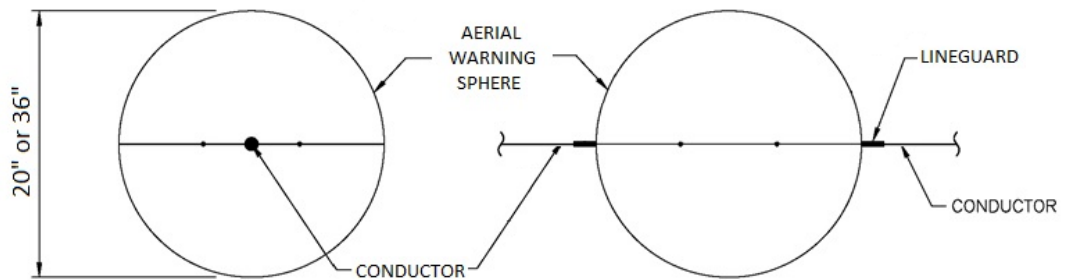
Aerial warning spheres are conductor size specific. See Table 4.

Aerial warning spheres shall be furnished with suitable spiral-formed lineguards for the specified conductor size. See Figure 4.

**Table 4. Requirements**

Stock No.	Sphere Size (in)	Wire Size and Conductor Type
014031	20	397.5 kcmil, Chickadee
014028	36	954 kcmil, Rail

**Figure 4. Dimensions and Details**



#### 5. Packaging

Aerial warning spheres shall be packaged to prevent damage during shipping and storage.

Each standard package shall be legibly marked with the following information:

- Manufacturer's identification
- Product description
- SCL stock number
- Quantity contained

Each shipping container shall be legibly marked with the following information:

- Manufacturer's identification
- Product description
- SCL purchase order number
- SCL stock number

#### 6. Issuance

Stock Unit: EA

## 7. Approved Manufacturers

<b>Stock No.</b>	<b>Description</b>	<b>Tana Manufacturing Catalog No.</b>
014031	20" aerial warning sphere	TWM20HS-0.743
014028	36" aerial warning sphere	TWM36AR-1.165-CORONA

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## 8. References

**SCL Design Standard 9171.11**; "Aerial Warning Device Applications"

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## 9. Sources

**Lin, Jimmy**; Electrical Engineering Associate (Transmission) and subject matter expert for 6916.07 (jimmy.lin@seattle.gov)

**Neuansourinh, Ponet**; Standards Engineer, originator, and subject matter expert for 6916.07 (ponet.neuansourinh@seattle.gov)