

**Acceptance of Building/Highway Lighting Electric Wire and Cable**

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BASIS

Material quality of wires/cables coded 5011 is monitored by the Materials Division per their quality monitoring procedure(s). Acceptance of wires/cables coded 5011 is based on:

- Determining what wire/cable is being used
- Confirming it is the appropriate wire/cable
- Verifying the wire/cable is approve listed
- Documenting wire/cable information to project records

PROCEDURE

1. Determine what wire/cable is being used.

a) Verify wire/cable characteristics: Conductors are to be individually insulated. If multiple, insulated conductors are to be contained in an outer jacket. If aerial, support cable is either attached by Manufacturer or otherwise involved. Wires/cables are to be new material with undamaged insulation and jacket.

b) Verify required wire/cable markings: Wire/cable must be clearly marked on outer surface as follows:

At intervals not exceeding 24 inches:

- Wire Size: Gage (AWG) or other designation as shown on plans

At intervals not exceeding 40 inches:

- Voltage: 600V (unless otherwise shown on plans)
- Type Identification: Examples: THHN, THWN, TWN, MTW, XHW etc. Verify Type XHHW-2 unless otherwise specified by plans, then as specified by plans.
- Manufacturer's name, trademark, or other distinctive marking by which the organization responsible for the product can be readily identified.

2. Verify the wire/cable being used is the same wire/cable required by the plans

3. Verify the wire/cable has an unexpired listing on the Approved Products List with a Field Acceptance Method of 5011.(1).

Product Category: Elec. Wire/Cable, Bldg/Hwy Light (738.02)

Material: elec005, Elect Wire/Cable, Building/Highway Light

Specification: 738.02(a)(b)(c)

Listing Method Example (by Identity Mark on wire/cable): \*IDENTITY MARK, Manufacturer's Name

\*may be UL Listing Number, Name or alphanumeric trademark

4a. For all SiteManager projects: Required documentation involves the Residency capturing data in an electronic SiteManager Contract Sample Information / AM5010 Test Template Record.

4b. For Non-SiteManager projects: Key data fields of the SiteManager method are recreated on Reference Document Form 5011-F1. Printing and completion of a Form 5011-F1 by the Residency and placement of it by them in their Non-SiteManager project file is the acceptable method. (2)

NOTES

1. Verification of wire/cable used should be an ongoing effort throughout project duration.

2. This Acceptance Method has a delivery/usage point and time focus: What wire/cable was delivered, will be or is being used on the project, and is it pre-approved? This is the most accurate and thus desirable point and time to verify, control and document actual pre-approved wire/cable usage.

Oklahoma DOT Materials Field Acceptance Method: **5011**

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Wires/Cables with an unexpired listing on the Approved Products List and a Field Acceptance Method of 5011 are pre-approved and do not require any project-level material, manufacturer or supplier certifications or testing as evidence of their material quality or material acceptability.

### FREQUENCY

Minimum is once per Product Name listing per project, with reasonable awareness that the appropriate nature and product information are unchanged.

### REFERENCE DOCUMENTS

- (1) Approved Product Lists may be found in the Approved List section of the Materials & Testing e-Guide at: [https://www.ok.gov/odot/Doing\\_Business/Materials/](https://www.ok.gov/odot/Doing_Business/Materials/)
- (2) [5011-F1](#) - Acceptance Form for Building/Highway Lighting Electric Wire and Cable on Non-SiteManager Projects

Revision 3/16/2015: Changed Materials & Testing e-Guide link, in Reference Documents (1) above, to new Materials & Testing e-Guide web page link.

Revision 7/6/2016: Changed Materials & Testing e-Guide hyperlink, in Reference Documents (2) above, to current Materials & Testing e-Guide URL.