Oklahoma DOT Materials Field Acceptance Method: **5012**

Acceptance of Communication Electric Cables

BASIS

Material quality of cables coded 5012 is monitored by the Materials Division per their quality monitoring procedure(s). Acceptance of cables coded 5012 is based on:

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

PROCEDURE

1. Determine what cable is being used.

   a) Verify cable characteristics: Cables should consist of individually insulated copper conductors, twisted into pairs, wrapped, shielded (typically a metal shield) and completely enclosed in an outer jacket. Cables are to be all new material with undamaged insulation and jacket. If aerial, support cable is either attached by Manufacturer or otherwise involved. Count to note the number of individually insulated conductors in the cable.

   b) Verify required cable markings:

   IMSA cables must be clearly marked on outer surface of jacket by indent printing at approximately 2 ft. intervals with:

   Name of Manufacturer
   Year manufactured
   Type: IMSA 20-2 or if specified otherwise in plans, then as specified in plans
   Voltage rating: 600V

   REA cables (each length) must be permanently identifiable as to:

   Name of Manufacturer
   Year manufactured

   REA cables must be clearly marked on their jacket at approximately 5 ft. intervals with:

   Number of conductor pairs and their gauge size

   c) Whenever possible, verify reel markings: Reels should be plainly and permanently marked with Manufacturer's full description of the cable, giving the type and length of cable on the reel, the number and size of conductors and the voltage rating. (typically 600V).

2. Verify the cable being used is the same cable required by the plans. In most cases, discovery of more individually insulated conductors (inside the cable) than are required by plans is not cause for rejection of the cable.

3. Verify the cable has an unexpired listing on the Approved Products List with a Field Acceptance Method of 5012(1)
Product Category: Elec. Wire/Cable, Communication (738.03)
Material: elec007, Elect Cable, Communication
Specification: 738.03
Listing Method Examples (by Type):
IMSA 20-2 (P/S m00000), Manufacturer's Name
REA (P/S m00000), Manufacturer's Name

4a. For all SiteManager projects: Required documentation involves the Residency capturing data in an electronic SiteManager Contract Sample Information / AM5012 Test Template Record.

4b. For Non-SiteManager projects: Key data fields of the SiteManager method are recreated on Reference Document Form 5012-F1. Printing and completion of a Form 5012-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 cable used should be an ongoing effort throughout project duration.

2. This Acceptance Method has a delivery/usage point and time focus: What 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 cable usage.

Cables with an unexpired listing on the Approved Products List and a Field Acceptance Method of 5012 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/
(2) 5012-F1 - Acceptance Form for Communication Electric Cables 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.