

# DEFECT OF THE MONTH

February 2017

Aluminum wiring – Rule 12-118 Violations



Over the past year, ESA inspectors have issued more than 2,000 defects related to aluminium wiring installations. Most of these defects have been found to be in violation of Rule 12-118.

Requirements of termination and splicing of aluminium conductors are clearly defined in Rule 12-118.

Violations of Rule 12-118 include:

- Use of non-approved aluminium wiring connectors;
  - Termination of aluminium conductors in devices not approved for aluminium wiring; and
- Mixing aluminium wiring with copper wiring without the use of approved compound materials.



**All terminations of aluminum conductors and replacement receptacles and switches shall be installed in compliance with the Code and marked as per the table below.**

Electrical Device	Required Marking
Receptacle (rated 20 amps or less)	"CO/ALR" or "AL-CU"
Receptacle (rated greater than 20 amps)	"AL-CU" Or "CU-AL"
Switch (rated 20 amps or less)	"CO/ALR"
Wire Connectors [intended for use with combinations of either an aluminum conductor(s), a copper conductor(s), or both]	"AL-CU" Or "CU-AL"
Luminaire (Lighting fixture or lampholder)	No required marking on fixture, however approved wire nuts are required.
Electric Heater	No required marking on heater, however approved wire nuts are required.