Incident Summary #II-877333-2019 (#14184) (FINAL)

SUPPORTING INFORMATION	Incident Date		July 8, 2019
	Location		Langford
	Regulated industry sector		Electrical - Low voltage electrical system (30V to 750V)
	Impact – Injury	Qty injuries	0
		Injury description	N/A
		Injury rating	None
	Impact – Damage	Damage description	Mechanical strain imposed on overhead feeder cabling resulting in deformation of mast conduit
		Damage rating	Minor
	Incident rating		Minor
	Incident overview		Mechanical strain was imposed on overhead feeder cabling by raised boom of mobile excavation equipment resulting in deformation of mast conduit. Thermoplastic jacketing of overhead cabling and cabling in raceway system was not damaged to point of compromising integrity of insulating properties. Overcurrent protection equipment for this portion of the installation was not activated as a result of this incident.
INVESTIGATION CONCLUSIONS	Site, system and components		The equipment involved in this incident is comprised of the following: overhead service to private pole; combination meter base installed on private pole; overhead, supported cabling from pole to detached structure; mast conduit on detached structure to raceway; raceway entering detached structure to sub-distribution equipment.
	Failure scenario(s)		Crew operating excavation equipment in close proximity to overhead feeder cabling did not accurately gauge the limits of approach to overhead feeder cabling. The raised boom of excavation equipment in transit contacted and imposed mechanical strain on overhead feeder cabling. Mechanical strain imposed on overhead feeder cabling caused deformation to lower portion of mast conduit.
	Facts and evidence		- Overhead supply cabling installed in accordance with minimum clearance requirements as put forth in Canadian Electrical Code (CEC 6-112 [2] [d]). - Overhead supply cabling in work area was not demarcated with warning flags at time that work was occurring. - Equipment operator moved equipment through area containing overhead supply cabling with boom raised. - Raised boom of equipment made contact with overhead supply cabling. - Strain imposed by boom contact with overhead supply cabling caused deformation to lower portion of mast conduit. - Thermoplastic jacketing of cabling was not damaged to the point of compromising insulation, over current protection was not activated.
	Causes and contributing factors		- Equipment operator was moving equipment within limits of approach of overhead feeder cabling and allowed the crane boom to hit the suspended electrical cable - A contributing factor was the overhead feeder cabling in work area was not being properly demarcated with warning flags prior to commencing work.

Photo 1: View of the suspended overhead electrical cable and bent vertical mast (right). Photo shows the equipment after partial repairs had been conducted, (provided by FSR).

Photo 2: Close up of mast after repairs had occurred and been completed. (provided by FSR).