By Mallory Clarkson

Protecting your floating tank storage facilities before it’s too late may come as an after thought, but for Joe Lanzoni, vice-president of operations with the Colorado-based Lightning Eliminators and Consultants (LEC) Inc., that should be at the front of people’s minds.

“I’ve been here over 20 years and it seems to me that most of our business is what I call post-catastrophic, so a typical customer has had an event,” he said.

“An event can range from anything from a fire at an industrial facility to a homeowner losing a television set. A really bad situation would be lightning igniting a petroleum storage tank.”

LEC was established in 1971 in California, but moved to Colorado in the ’80s. While it currently has some sales in Ontario, the company is looking to expand into the Western Canada market.
Unlike other conventional lightning protection companies, where lightning rods are installed on the tank, or a cable or conductor is suspended over the tank between two poles, LEC uses a system to ward off lightning.

“Neither of those techniques are effective at preventing the effects that cause the ignition of vapours,” Lanzoni said. “We have a lightning protection system called the dissipation array system (DAS), (which) is a lightning-strike avoidance system. The way that works is it dissipates the charge that accumulates on the structure prior to the collection of a strike.”

Lanzoni explained conventional techniques are made to collect lightning strikes and bring energy to the ground, whereas the LEC system wards off the strike. He added the conventional method isn’t necessarily a good measure, as it still grounds the charge in the vicinity of the tank.

Lanzoni said LEC always encourages people to take a preventative approach towards lightning strikes and related consequences. He said the cost to protect a tank is a small fraction of the value of the tank’s contents and of damages a fire could cause.

“These tanks, once they ignite, they’re extremely difficult to extinguish and they cause lots of smoke, lots of fire, it threatens the entire community and so forth,” he said, adding sometimes towns downwind of such fires have to be evacuated.

“In the Midwest a couple of years ago, there were some really big tank fires where lightning ignited and the one I’m thinking of was where lightning ignited a huge tank containing refined, unleaded gasoline.”

Prices for DAS systems range from a few thousand dollars to protect a small tank to upwards of $20,000 for a huge tank. These are one-time costs, as the materials are considered durable, outdoor equipment.

There is a full range of services offered by LED.

Lanzoni said the company has the capabilities to design and engineer the protection system, manufacture and also install it.

“We can provide and any part of that,” he said. “We typically design and build and sometimes we’ll install it and sometimes the customer will install it.”

The systems also won’t affect the operation of the tank, as they are passive and not energized or plugged in.

“When we design a system, we’ll design it and we’ll send the drawings to the customer for approval to make sure we’ve coordinated any allowances to not interfere,” he said.

For more information on LEC or any of its services, visit www.lightningprotection.com.

Workers install one of patented dissipation array system systems designed, engineered and built by Lightning Eliminators and Consultants Inc. – Photo Submitted