Fires, Hacking Are Just 2 Hazards at Electric Vehicle Charging Stations

Best's Underwriting & Loss Control Resources provides insight into the lines of coverage for electric vehicle charging station manufacturers.

"Out of Service. Glory to Ukraine. Glory to Heroes."

It wasn't what one would expect to see on the display screen of an electric vehicle charging station near Moscow. But there it was, at one of several stations that were hacked last year in the wake of the Russia-Ukraine conflict. Other messages included disparaging remarks about Russian President Vladimir Putin, who was described in words not exactly suitable for print.

Hacking is just one risk associated with electric vehicle charging stations, something manufacturers and their insurers must keep in mind.

Like the electric vehicles themselves, "the manufacturing of chargers and charging stations is considered a 'clean' industry," according to a recent Best's Underwriting & Loss Control Resources report, *Electric Vehicle Charging Station Manufacturers*.

"Components and materials for these chargers (e.g., metals such as aluminum or steel, computerized central processing units, cables and wiring, a card reader, tempered glass and generally a converter from alternating current [AC] to direct current [DC] electricity) will be delivered to the factory rather than being produced on-site," the report says. "Although most of these components have been manufactured elsewhere, EV charger manufacturers still operate some highly automated factory processes. … [W]orkers likely will screw in and insert some essential components by hand (e.g., wiring and cables, and the central processing unit [CPU]) inside the charging box. They might also attach a charging unit atop a base that will be erected at a commercial installation site. Whether through being inside a closed container and/or being sealed with weatherstripping, charging stations will need to be weatherproofed from the outdoor elements."

"The main factory floor will be an open area in which components of the charging station will be assembled, possibly along a conveyor. Tall racks will be installed in warehouse areas for storing components and finished charging stations," the report says.

Best's Underwriting Reports has identified nine lines of coverage for electric vehicle charging station manufacturers: Automobile Liability; General Liability: Premises and Operations; General Liability: Products-Completed Operations; Workers' Compensation; Crime; Property; Business Interruption; Inland Marine; and Equipment Breakdown.

Best's Hazard Index ranks the risk of exposure for the lines of business as Low (1-3), Medium (4-6), High (7-9) or Very High (10).

Following are excerpts from the Lines of Coverage reports that show the highest index rankings.

Best's Hazard Index

Line of Coverage	Best's Hazard Index
General Liability: Products-Completed Operations	6
Workers' Compensation	6
Property	5
Equipment Breakdown	5

Lines of Coverage

General Liability: Products-Completed Operations

Electric vehicle charging station manufacturers will have a significant exposure. Charging station users could be injured by electrical shocks or by tripping over long cables; although highly unlikely, fires could erupt due to a malfunctioning charger. Fires could damage the charging vehicles and nearby property or injure bystanders. Chargers installed inside garages can ignite a home, and there is a possibility of liability if the fire spreads. Vehicles can be damaged by improper charging, possibly by consumers who fail to follow instructions or vehicle manufacturer recommendations. Poor installations can lead to charger malfunctions. Still, the charger manufacturer could need to defend itself. Third parties generally install and might service the charging stations, although manufacturers often offer service support for installed chargers. Nevertheless, the insured could face claims if it is alleged, or proven, that its charger was defective and/or operating improperly.

Workers' Compensation

This exposure will be significant. Production employees likely will be working along an automated assembly line

and might use laser cutters or robotic welding equipment that can inflict major injuries. Lithium-ion batteries, which can catch fire or explode under certain circumstances, could be on the premises. Slips, trips and falls can occur throughout the facility, and warehouse accidents could occur with forklifts or toppling merchandise. Assembly line workers could experience repetitive motion injuries.

Property

This exposure will be moderate. The insured will use considerable manufacturing equipment to produce chargers. Malfunctioning electrical equipment, faulty wiring, kitchen equipment or smoking will be the major sources of ignition. The fire load will include equipment, packaging materials, trash, furniture, solvents, fuel or batteries and sometimes lithium-ion batteries. Forklifts and their batteries or fuel also could add to the fire load. On-site computers and computerized equipment will be covered here, although automated equipment also will be addressed under Equipment Breakdown.

Equipment Breakdown

There will be a moderate exposure. Conveyor systems and automated equipment often will be used in manufacturing, although some steps could be partially performed by hand. Machinery might include laser cutters, automated welding and metal fabrication equipment. Loss of such equipment could hold up production and be expensive to replace. Heating and cooling systems also could be subject to loss.

Loss Control

On-Site Inspection:

- What type(s) of charger does the insured produce?
- Are chargers primarily intended for home use, at a public charging station, or in both settings?
- What is the layout of the premises?
- What is the condition of floors and floor coverings?
- What are the number, age, type and condition of the insured's industrial-type equipment?
- What automated equipment uses heat (e.g., laser equipment)?
- Does the insured have a conveyor system?
- What other automated/specialized machinery does the insured use at its production facility? BR

—Anthony Bellano

Scan for more on this and other risk classifications in Best's Underwriting & Loss Control Resources.