MARINE MINERALS ADMINISTRATION

SAFETY ALERT

Safety Alert No. 526
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Inspect Batteries and Charging Systems to Prevent Ruptures



Figure 1: Ruptured battery below crane operator's seat on September 19, 2026.



Figure 2: Battery explosion that led to an employee being exposed to chemicals on September 20, 2026.

Background:

Two battery-rupture incidents involving offshore cranes recently occurred in the Gulf of America. The incidents highlight the need to inspect batteries and charging systems, identify hazards and follow safe maintenance and troubleshooting procedures. Outer Continental Shelf operators and contractors must treat batteries as potential sources of stored energy, chemical exposure, fire, and equipment damage.

Incident 1 (Figure 1):

A crane battery ruptured while an operator was seated above it. The battery had not been used or serviced for about two years and was stored in a small compartment beneath the crane's seat. Although the battery had not been used, it remained connected to a solar panel through a regulator designed to stop charging when the battery reached full capacity. The rupture affected equipment and prompted precautionary measures. The operator reported no direct contact with battery acid.

Incident 2 (Figure 2):

During electrical trouble-shooting operations, a crane battery ruptured as a worker lifted it to free a trapped sensor wire. The sensor wire had been unplugged during a recent battery change and was caught beneath the edge of a battery in the battery box. As the worker raised the battery, the battery tops blew off, exposing personnel to the hazardous battery contents. Personnel then immediately flushed affected skin and clothing with water.

Incident Findings:

- Battery damage, improper maintenance, incorrect installation, overcharging, short circuits and unsuitable operating conditions can cause ruptures or explosions.
- A rupture can release corrosive electrolytes, flammable gases, or battery fragments that can injure personnel or damage equipment.
- Moving or troubleshooting batteries can expose workers to stored electrical energy, corrosive material and ignition hazards. Workers should follow site-specific emergency and medical-response procedures if exposed to battery contents.
- A battery may still present hazards after long periods without use, especially if it remains connected to a charging source.

MMA recommends that operators and their contractors, where appropriate, consider the following:

- Inventory batteries at offshore facilities, including those in cranes, backup systems and equipment that is rarely used. Have qualified personnel inspect and test batteries using manufacturer instructions, approved site procedures and suitable equipment.
- Inspect batteries, terminals and connections for swelling, cracks, leaks, deformation, bulging, damaged terminals, loose connections, corrosion, overheating, and other abnormal conditions. Do not test or handle a visibly damaged battery until qualified personnel assess the hazards and establish appropriate controls.
- Verify that chargers, solar panels, regulators and senor wiring are properly connected and operating as intended. Confirm charger settings and battery compatibility and follow manufacturer guidance for charging and maintenance.

- Before moving or troubleshooting batteries, assess stored-energy, electrical and chemical hazards. Establish a safe work area, control ignition sources and isolate electrical energy when it is safe to do so.
- Isolate, label, secure, and dispose of damaged or suspect batteries in accordance with approved site and environmental procedures. Do not return affected equipment to service until it has been evaluated.
- Record battery-related findings, locations, equipment identifiers, immediate controls, responsible personnel and closeout actions. Include battery condition and charging or storage arrangements in routine hazard hunts.
- Keep batteries, enclosures and charging areas clean, dry, adequately ventilated and protected from impact and unauthorized access.
- Review BSEE Safety Alerts 388, 370, and 293 with offshore personnel during toolbox talks or safety meetings. Discuss lessons involving charging systems, ventilation and battery isolation.

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A Safety Alert is a tool used by the Marine Minerals Administration to inform the offshore oil and gas industry of the circumstances surrounding a potential safety issue. It also contains recommendations that could assist in avoiding potential incidents on the Outer Continental Shelf.

As of July 10, 2026, the Department of Interior has reunified the Bureau of Ocean Energy Management and the Bureau of Safety and Environmental Enforcement into the Marine Minerals Administration, which will oversee the responsible development of the nation's offshore energy and marine mineral resources with an integrated focus on safety, environmental protection and efficient oversight. For more information, visit Transition to the Marine Minerals Administration | U.S. Department of the Interior.

CATEGORY: Batteries, Electrical