Platform RTU Battery Charger Fire

On a platform’s leased space, a Third Party installed a new battery charger in the Third Party’s Remote Terminal Unit (RTU). The breaker for the original battery charger was turned off; however, the original charger was not removed and left hooked up to the original bank of batteries. Several months later, platform personnel discovered a fire originating from the original battery charger. The fire melted the battery casings, scorched the battery charger and immediate inside surroundings of the RTU. The fire activated the platform’s gas detector alarms, shutting in the platform. Platform personnel extinguished the fire using hand-held carbon dioxide and dry-chemical extinguishers.

A BOEMRE investigation revealed the following:

- The original charger’s old nickel cadmium batteries internally shorted resulting in melting of the battery casings and ignition of the released battery fluids.
- The original battery charger’s breaker was found in the “on” position.
- No determination could be made on when the breaker was turned back on, but platform personnel indicated it may have occurred during the last meter proving operation by the Third Party. This operation was not documented in the platform’s maintenance log.

BOEMRE recommends the following to Lessees and its contractors:

- When an electrical device is determined to be inoperative, battery chargers in particular, a competent person must ensure the proper method of isolation and discharge of the stored energy.
- Batteries currently in use should be inspected to ensure they are in good condition and being maintained as per the manufacturer recommendations.
- Remove old batteries no longer in use from the platform, and store spare batteries in protective enclosures.
- Any Third Party work performed on a facility’s leased space should be discussed between the Third Party and the operator’s personnel, in order for the operator’s designated representative to verify that all tasks were performed in accordance with both the platform operator and Third Party requirements.

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A Safety Alert is a tool used by BOEMRE to inform the offshore oil and gas industry of the circumstances surrounding an accident or a near miss. It also contains recommendations that should help prevent the recurrence of such an incident on the Outer Continental Shelf.