


SAFETY ALERT NOTIFICATION		Safety Alert #	SA – 2019 - 13
		IMS #	99649
	<b>Jump Starter Pack Explosions</b>	OPERATION:	Multiple Sites
		INCIDENT DATE:	8/20/2019
		TIME:	10 a.m.
		TYPE:	Injury
Issued By: <b>Tiffany Zaytsow, Health and Safety Manager-Morenci and Andrew Siersma, Health and Safety Manager-Henderson</b>		Contact For Additional Details: <b>tzaytsow@fmi.com (Morenci) or asiersma@fmi.com (Henderson)</b>	

This is NOT an investigation report. It is a NOTIFICATION of a Significant Incident that has taken place at a Freeport-McMoRan location. The information below is a preliminary assessment and not a formal investigation.

### INCIDENT DESCRIPTION

**Summary:** The following Safety Alert provides information about ongoing investigations into two separate incidents where the same make and model jump starter pack exploded.

**Description:** The company currently is conducting investigations into the following incidents at Morenci and Henderson operations involving jump starter packs that exploded, injuring employees.

- Morenci:** Two employees were attempting to jump-start a water truck in the asset recycling yard. They hooked up a Jump-N-Carry 12/24 volt jump starter pack – set at 24 volts – to the engine battery, but the truck did not start. The employees proceeded to hook up a second jump starter – set at 12 volts – and the engine turned over, but did not start. They then realized the voltage selection for the second starter was incorrect, so one employee disconnected the grounding cable and switched to 24 volts. Upon reconnecting the grounding cable, the second jump starter exploded resulting in injuries to the employee's right forearm and abdominal burns.  
  
 An initial investigation revealed the cross voltage generated flammable gases within the plastic casing of the jump starter that ignited when the grounding cable was reconnected. The jump starter also did not have a warning system to alert of improper voltage selection.
- Henderson:** A shop mechanic was repairing a rear-axle lift emergency stop control button that had come loose in the cab of a concrete transport truck. Once finished, the mechanic attempted to start the machine. It would not start so the mechanic assumed the battery charge was too low having been on for an extended period during repairs. The mechanic obtained a jump starter pack, connected the positive and ground leads, and began to plug the voltage selection cord into the 24-volt port on the jump starter when it exploded. The employee sustained injuries to the left hand and abdomen.

### FATAL RISKS

Uncontrolled Release of Energy

### HEALTH AND SAFETY POLICIES

N/A

### OTHER SIGNIFICANT RISK (specific to site or task not categorized as global)

N/A

### PROBABLE DIRECT CAUSES

- Inadequate employee training on how to use the jump starter
- Improper equipment use –
  - At Morenci, jump starter initially set at 12 volts instead of 24 volts
  - At Henderson, the internal SOP was followed, but it differed from the manufacturer instructions for order of connections
- Inadequate warning system – jump starter not equipped with lights or warning signals to warn of improper voltage selection

### IMMEDIATE CORRECTIVE ACTION(S)

- Immediately stopped work and notified supervision
- Temporarily suspended use of the jump starter packs until more information is known
- Contacted Global Supply Chain who has temporarily blocked the material code in SAP and is looking into potential other material codes associated with the jump starter

### REQUIRED ACTION(S)

- Work with GSC to research jump starter alternatives / products with warning devices
- Ensure operator manual and safety manual are readily available to employees
- Implement recurring training on jump starter to ensure employees know how to use the equipment and follow procedures, including what to do in the case of incorrect voltage selection

### Photos or Supporting Documentation

#### Additional Equipment Information

- Material stock number: 40118783 (jump starter pack was same make/model at both sites)
- Clore Automotive Safety Manual:  
<https://cloreautomotive.com/wp-content/uploads/2018/08/JNC1224-Safety-Presentation.pdf>
- Clore Automotive Operator's Manual:  
<https://cloreautomotive.com/wp-content/uploads/2018/08/842-366-224.pdf>

#### Morenci Photos



Damage to the jump starter pack (left) and positive grounding cable.



Back panel casing impaled during explosion.



Instructions on the back panel casing of the jump starter.



### Henderson Photos



In the middle at top is the gray voltage selection plug.



Damage to the jump starter.

**This is NOT an investigation report. It is a NOTIFICATION of a Significant Incident that has taken place at a Freeport-McMoRan operation and is being communicated to enhance safety awareness should a similar situation exist. The information above is a preliminary assessment of the event and is not a formal investigation.**