Safety Advice 01-2009A (NZ)

Explosion on LV Frame within Distribution Substation Switchgear

Safety Advice 01-2009A contains follow-up information to the original Safety Advice 01-2009 coverage of the January 2009 Switchgear incident.

Date: 28 April 2009 **Issued by: Group HSEQ**

Date Incident Occurred:	10 January 2009
Where it happened	
What happened	An explosion occurred on a JW type LV Frame while linking following routine maintenance. *(refer Safety Alert 01-2009 issued January 2009)*
UPDATE	The technical investigation has found that the most likely cause of this incident is the failure of the support structure while a solid isolating link was being fitted. A study in to the operational practice of live LV linking on this type of equipment along with the associated hazards and controls is being conducted. In the mean time, it has been agreed the following work methods must be initiated immediately to prevent a recurrence of this incident.
Message	The following information applies to the removal or insertion of solid isolating links on JW type LV Frames. Typical examples shown below:

	  Note: This alert does not apply to • The operation of JW fuses • Stand alone link pillars Procedures to operating LV Frames fitted with proprietary DIN type disconnectors remain unchanged.
MAINTENANCE OR PROJECT ACTIVITIES **Solid isolating links on JW type LV frame** **Action required**	Removal or insertion of solid isolating links on JW type LV Frames must be conducted while the frame is **de-energised**. A full outage is required in these circumstances. The established procedure and timeframes for obtaining an outage with customers prior to work commencing must be followed and all efforts made to reach agreement with affected customers for the outage to procedure so that maintenance or project work can be conducted. Two small shutdowns to establish and disestablish back feeds could be considered. Where customers refuse to grant consent, the Customer Services team must be consulted in order to gain customer's consent. **If all efforts fail to secure customer consent for an outage, the work activity must not proceed. Issues are to be documented and forwarded to the asset owner's Performance Manager or Project Manager respectively.**
FAULT ACTIVITIES **Solid isolating links on JW type**	Removal or insertion of solid isolating links on JW type LV Frames must be conducted while the frame is **de-energised**. A full outage is required in these circumstances. Where faults occur and the removal or insertion of solid isolating

LV frame	links is required to isolate, restore or back feed power supply, the LV frame must be **de-energised**.
Action Required	Crews must assess the number and type of customers impacted that any emergency outage would cause. **Crews must then follow the process for Notification of Emergency Shutdowns to Remove or Insert Solid Isolating Links in JW type LV Frames in Fault Conditions.**

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