

First Alert – FA042

33 kV Switchboard Fault



be mindful
be present
be safe

Incident		Description	
Event Date: 8/05/2021	Time: 15:56	Location: Kensington Substation, Whangarei	
Investigation Status:	On-going	NP Reference / External Reference: INV # 7924	
Event Description:	<p>When re-living T1 after maintenance there was an explosion in the 33 kV indoor switchboard both 110 kV circuits tripped.</p> <p>The initial findings indicated that a resin cast CT (Type RCBP/E) failed and appears to have initiated a flashover in the switchgear panel. The spread of burnt material has entered the bus chamber initiating a busbar flashover resulting in T2 tripping. This result in a total loss of supply from Kensington substation.</p> <p>The busbar chamber was cleaned, tested and returned to service, but remainder of the panel is beyond repair.</p> <p>The switchgear was Merlin Gerin Fluair 400 manufactured in 1989.</p> <p>In addition to the switchboard failure, a staff member was seated away from the area, in the same room. The staff member was unable to use the nearest exit, and exited through the smoke plume, inhaling the smoke. The staff member was assessed by a medical practitioner and is received support post-incident.</p>		
Potential Outcome:	<ul style="list-style-type: none"> • Potential for serious harm from arc flash and explosive forces. • Significant damage to equipment. • Major loss of supply. 		
			

Please email Alert to [NPSAFE](#) in Word Format for review and distribution.

SMS-FORM-006 First Alert / Safety Alert Template

Date of Issue: 8/06/2021

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Actions Required / Messages:	<ul style="list-style-type: none">• Staff should remain outside of the switch room when liveing switchgear• Use of appropriate PPE when inside a switch room.• Egress routes should be unimpeded and exits clearly marked / identified even when the room is full of smoke. <p>Future designs need to ensure equipment 'fails safe'.</p>
SM-EI Reference:	SM-EI 1.304 - Work Safety Plan
Contact Person:	Russell Watson: Principal Engineer 0274770185

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