



CASE STUDY: WINSTONE PULP INTERNATIONAL – URGENT REPAIRS

Winstone Pulp International located near Ohakune, suffered a major fire in the main cables tray, burning through approximately 450 different cables effectively shutting the place down before lightning struck causing further damage and delays.

PROJECT SCOPE

Winstone Pulp International (WPI) staff had started cutting away and identifying the damaged cables before the Maintenance Manager realised the job was bigger than they could accomplish alone. Northpower was asked to urgently assist with repairs including the running in and jointing of new cables ranging from protection cables to 37 core multi-core and 120mm neutral screen cables.

CHALLENGES

The fire caused extensive damage rendering many cables unidentifiable and indistinguishable from telecommunication, power or data cables. Both the main pulp mill (36MW) and the Tangiwhai sawmill (4MW) were shut down until repairs had been completed losing money each day it was out of production. After completing 10 days of 12 hour rotating day and night shifts the main pulp mill was being bought online when disaster struck. Lightning hit an 11kV overhead line a couple of kilometres from the Tangiwhai sawmill, back feeding through the 11kV supply cable completely destroying an indoor 11kV circuit breaker, causing further delays and loss in production.



SOLUTIONS

Northpower electricians and technician worked 12 hour rotating night and day shifts with WPI repairing, testing and commissioning all the damaged cables.

After the lightning struck, Northpower staff took charge to completely remove the damaged circuit breaker by morning. Northpower day shift staff working with WPI mechanical fitters reinstated the bus work and created temporary insulated supports for it before carrying out Ductor and Hi Post testing.

During commissioning it was discovered that their 6MW 11kV motor had also been damaged by the lightning. It took WPI staff a further 24 hours to change this motor while Northpower assisted with the insulation testing of the remaining unstarted motors.

In the meantime Northpower's Project Manager worked with WPI Maintenance Manager to devise a plan to use the spare capacity of a neighboring circuit breaker to supply the damaged circuit breakers 11kV cable enabling the Tangiwhai sawmill to be bought back into production. An experienced Northpower cable jointer/fitter drove from Hamilton on short notice to assist with repairs. The Tangiwhai sawmill was bought back online by 3pm the next day.

RESULTS

Winstone Pulp International were very impressed with Northpower staff's versatility, skill, expertise and ability to work under pressure. Since the repairs Northpower has been asked for its advice on how best to sectionalise the 11kV overhead power lines and to send more staff to change the oil in a minimum oil Circuit Breaker. Northpower has also been invited to price further capital works starting with a 2 MW transformer installation. Northpower is also talking to WPI about the implementation of a High Voltage equipment maintenance plan.