

UK Power Station Adopts Made-to-Measure D400 GRP Access Covers for 5 Road Crossing Trenches



Bespoke lightweight Fibrelite covers and frames installed at UK power station

Project Overview

Electrical power generation facilities have large quantities of cabling running below the ground as a matter of course, which must be accessed regularly. Back in the 1960s when many of these facilities were built, heavy concrete and steel or cast-iron trench access covers were the only option available.

At this facility, previously installed concrete infill covers were deteriorating, exacerbating manual handling risks and running the potential of restricting vehicular access to certain areas of the site.

Fibrelite designed and engineered custom GRP D400 load rated access covers to fit existing apertures, alleviating manual handling risks for today and years to come.



Previously installed concrete infill covers had deteriorated, making covers dangerous to remove, even with specialist personnel and equipment

Problem

The previously installed heavy concrete infill covers had always been difficult to remove due to their weight, but the deterioration of the covers (pictured above) exacerbated the issue, causing a major hindrance to staff when access was required to the services within the trench. The deterioration also compromised the structural integrity of the covers, potentially restricting vehicular access to the site where trenches ran across road crossings.

Some of the key issues cited by the client:

- Deep cracks had formed within the concrete covers which had led to them fracturing entirely in some areas
- Covers dangerous to remove and replace even with specialist personnel and equipment
- Vital maintenance to trench services had to be delayed
- Fractured concrete a trip hazard and eyesore
- Fragmentation was amplified by the regular heavy vehicular traffic loads

The dilapidation of the covers eventually became too disruptive to ignore, and a safe long-term solution was required.



Solution

Fibrelite was approached for a solution through IJM, a customer with which they had worked on a large number of similar projects over many years.

Fibrelite worked with IJM to create five sets of lightweight made-to-measure GRP composite access covers and accompanying aluminium frame sections.

Key features for this project:

- Covers and frames were designed to fit existing apertures, minimising installation cost and time
- Lightweight and strong – the D400 load rated (equivalent to 11t single slow-moving wheel load) covers can be safely manually removed by two people using the FL7 ergonomically designed lifting handle, alleviating manual handling issues (Fibrelite D400 covers are available up to a 1600mm span)
- Inherent resistance to corrosion, requiring a minimum of maintenance while providing a long-term solution
- Securing system to prevent unauthorised access (an optional extra offered by Fibrelite)

The delivery schedule was discussed and guaranteed months in advance as is the usual procedure for this customer. All products were manufactured and supplied within a month of receiving a purchase order from the client.



Fibrelite access covers have an inherent resistance to corrosion



Results

'As ever I am always striving for excellence and to date have been more than satisfied with Fibrelite's products and the personal service they give me.'

Ian Marsh – IJM Director

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