

# Transforming Safety: How FRP Engineering Resolved Environmental Hazards at BHP's Pilbara Minesites

## CASE STUDY

With innovative FRP grating and adjustable pedestals, FRP Engineering delivered a safer, more efficient work environment while restoring crucial bund capacity.

### THE PROJECT:

**Project Category:**

**FRP Grating & Adjustable Pedestals**

**Scope of Work:**

**Replace the blue metal fill in the transformer bund with FRP grating and adjustable pedestals to restore capacity, eliminate environmental hazards, and provide a safe, level surface for workers.**

**Solution:**

**Installed prefabricated FRP Grating supported by adjustable pedestals, creating a stable, even surface and restoring the bund's capacity to meet environmental safety standards.**

**Project Challenges:**

**Insufficient bund capacity with blue metal fill, creating environmental risks, and an uneven surface that compromised worker safety and operational efficiency.**

### THE SOLUTION:

FRP Engineering provided a tailored solution by installing prefabricated FRP Grating supported by adjustable pedestals. This approach created a stable, level surface, resolving the issue of uneven terrain, while also restoring the transformer bund's capacity to meet environmental safety standards. The use of prefabricated materials allowed for rapid installation, reducing onsite workdays and lowering project costs.

#### BEFORE FRP:

Before FRP Engineering's involvement, the bund was filled with blue metal, reducing capacity and attracting dust, creating environmental and safety risks. The uneven surface contributed to worker fatigue and potential injury.

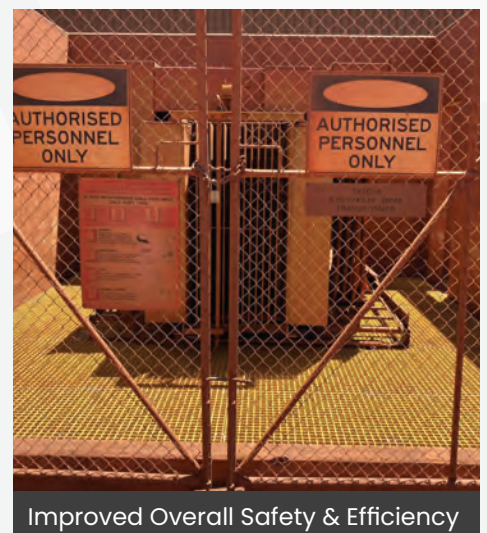


Environmental & Safety Risks

#### AFTER FRP:

Following FRP Engineering's intervention, the bund area was transformed with a level surface, ensuring it could now contain the necessary material volume.

The new surface significantly reduced worker injuries and fatigue, improving the overall safety and operational efficiency in the area.



Improved Overall Safety & Efficiency

## THE FRP APPROACH:

**FRP Engineering designed a tailored solution to replace the problematic blue metal fill with FRP grating and adjustable pedestals.**

This approach included:

- Accurately surveyed the bund area to obtain precise measurements for prefabrication.
- Prefabricated the FRP grating in the workshop for quick and efficient on-site installation.
- Included a lightweight, removable section for easy access during cleaning and maintenance.
- Used adjustable pedestals to accommodate uneven ground, ensuring a smooth, level surface throughout.

By prefabricating the materials, FRP was able to reduce on-site workdays and lower overall project costs.

## THE FRP RESULT

### Increased Capacity & Environmental Safety

The bund now meets capacity requirements, effectively mitigating environmental risks.

### Enhanced Worker Safety & Efficiency

The new level surface has reduced worker fatigue and injury, creating a safer and more productive workspace.

### Recognition for Positive Impact

The project was included in BHP's 'Making a Change' program, highlighting its success in improving environmental safety and worker conditions.

## FRP PRODUCTS USED:

- FRP Grating: 38mm, Yellow, ISOFR, Non-conducting.
- Adjustable Pedestals: 250-400mm
- Pedestals: rated to 1200kg per unit, recyclable and UV stable.

The implementation of this solution successfully addressed BHP's environmental and safety concerns. FRP Engineering looks forward to replicating this solution across other locations within the BHP network, further enhancing safety and operational efficiency throughout their sites.

## CONTACT US

For more information on our range, email us on [enquiries@frpengineering.net](mailto:enquiries@frpengineering.net) or call us at (08) 9455 4343 to discover our range of safety work access platforms today!

