

# HUMBER TUNNEL CASE STUDY

**LOCATION:** Goxhill, South Humber Bank  
**TIMEFRAME:** May 2019 - February 2020

HFR Solutions met the Humber Tunnel Project Director and SHEQ Manager to discuss the emergency rescue requirements for the tunnel project. The project team had concerns that their current emergency planning and preparedness provision did not have the capability to deal with all deep-seated incidents that had been identified and required emergency response specialists to ensure compliance. National Grid formed a joint venture between three primary contractors: Skanska, Porr and a.hak. The project was to replace an adjacent tunnel and gas pipe which was not economically viable to maintain. Due to extensive experience with tunnelling operations, HFR Solutions were selected as the rescue partner.



## SOLUTIONS DELIVERED

- Tunnel Emergency Response Teams (ERT)
- Overall project Confined Space Risk Assessment
- Fire Risk Assessments for tunnel and contractor village
- Workplace Safety Training for personnel
- Emergency Response Plan
- Provided Risk Assessments and Rescue Plans for emergency provisions
- 24/7 management support
- Hire of long-duration breathing apparatus
- Reactive response to Emergency Incidents
- Emergency Planning and Exercises
- Support Skanska management team by completing proactive Health and Safety Audits
- Tangible documented safety conversations to support the Skanska Safety Culture
- Enhanced First Aid training for on-site personnel

## REQUIREMENT

The Humber Tunnel is 5.4km long, sitting 30m beneath the surface of the River Humber and designed to carry 20% of the UK's gas supply. Due to the complexity of the tunnelling operations and for the majority of the project there only being one entry and exit point at Goxhill, the ERT required specialist long-duration breathing apparatus to deal with any foreseeable incidents. The client required an initial provision for an emergency response team. However, due to the extensive knowledge and skills of the HFR Solutions team, it became evident to the client that we could assist with additional project services and solutions.

HFR Solutions were commissioned due to our expertise around emergency planning and preparedness; including the ability to provide robust legislative documentation. Solutions assisted with emergency plan writing, confined space risk assessments and fire risk assessments for the tunnel and contractor village. These were extensive due to complexity of the tunnelling operations and the amount of contractors involved on site.

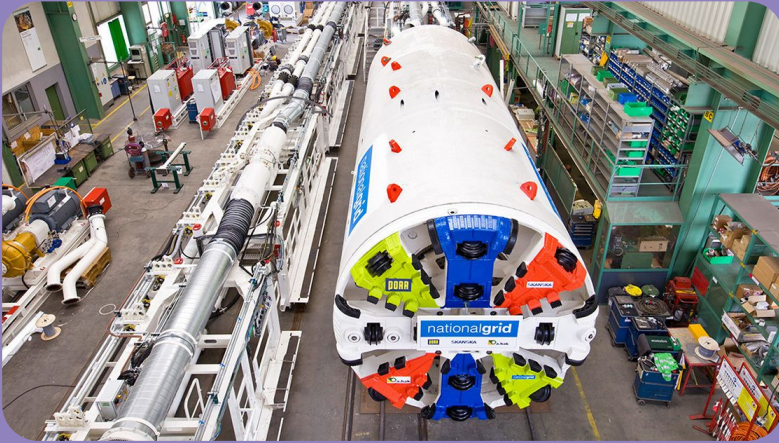
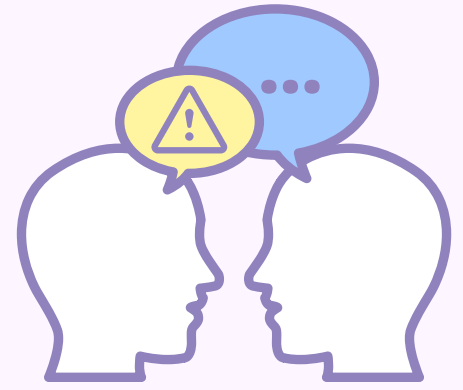


## WORKABLE RESCUE PLANS

The team facilitated numerous emergency exercises that were based around foreseeable incidents which were identified in the project emergency response plan. Working with the contract partners, this tested their ability to respond; from the initial emergency call through to conclusion of incident. Processes were tested from start to finish, with full involvement from our partners. HFR Solutions brought in incident consultants to audit the emergency response exercises. Our consultant was then requested to re-write all the confined space risk assessments for the tunnelling project to ensure all mitigation was in place for the hostile environment.

## OUTCOMES

- Provided the Humber Tunnel team with the assurance that legislative compliance for high-risk tunnelling activities (confined space) were met.
- Deployed professional rescue teams developed from local authority front line emergency service responders.
- Enhanced the Humber Tunnel safety culture process by completing proactive safety conversations and documented safety audits and inspections.
- Offered specialist consultancy including confined space risk assessments, emergency planning and fire risk assessments.



## SOLUTION

Due to the increased distances between the tunnel entrance and the scene of operations, any emergency incident would require a specialist rescue team. The Skanska team operating on behalf of the JV identified that HFR Solutions had the correct knowledge, skills and experience to meet all fire, rescue and medical intervention requirements for tunnelling activities. The Humber Tunnel project had the assurance of a professional emergency response team, proactively monitoring site activities.

### Our Operational Director Shaun Lyons said:

"Our Emergency Response Teams have vast experience, competency, and capability to work in such challenging environments. Working closely with the Skanska team, we engaged the workforce with proactive safety conversations, and tested the emergency procedures to ensure any realistic incidents or medical intervention could be effectively resolved within the 5km tunnel."

### SHEQ Manager Ryan Gooseman said:

"HFR Solutions brought a wealth of experience to the project. Their proactive approach to health and safety across the full project was welcomed by the JV partners. The team demonstrated on multiple occasions that they had the skillset, tools and experience to deal with any incident, both within the tunnelling operations and externally on the CDM site."

## WHO ARE WE?

HFR Solutions are an ISO-accredited Community Interest Company founded in 2012 who specialise in emergency response and workplace safety. We work closely with organisations to help better #PlanPrepareRespond in an emergency, comply with legislation and ensure employees hold the competency to maintain a safe working environment. This is achieved through the delivery of emergency response and management solutions, safety-team deployment, as well as confined space, fire safety, advanced first aid and work at height workplace safety solutions.