

Case Study: The Deconstruction of the Churchill Way Flyovers



Aim

To develop and implement a “live” health and safety compliance tracker that can be viewed or updated in real time anywhere providing an instant update on health and safety compliance and performance.

Objective

To enable compliance with health and safety law and protect persons at work including persons who may be affected by the activities.

Introduction

In a previous role as Health, Safety and Environmental Manager at a former company I was appointed as the Health and Safety lead on a high-profile deconstruction project located in Liverpool City Centre. The company was appointed by the Principal Designer (PD) on behalf of their client to provide health and safety advice, guidance and support to ensure all duty holders were fulfilling their legal obligations and compliance with the Construction (Design and Management) Regulations 2015 during the deconstruction of The Churchill Way Flyovers in Liverpool. In order to fully understand the nature and extent of the works I was involved from the pre-construction phase of the project based at the Principal Contractors (PC) Liverpool head offices. I liaised with the Health and Safety Manager, Contracts Manager and Project Manager on a regular basis to ensure due diligence and compliance analysing data to understand the history of the structure, how it was built, and materials used. Also, analysing the deconstruction and dismantling methodology to ensure safety, health and wellbeing is not compromised and that all risk was maintained at a residual level throughout the project. In order to maintain compliance we had a presence on site 7 days a week and included late evenings to ensure traffic and pedestrian management were maintained for the night works. We carried out 3 scheduled daily health and safety inspections, which included the involvement of representatives from the client, PD and the PC with the aim to identify good practice and highlight areas which require further improvement or immediate action. The findings which included recommendations of corrective action were communicated to the site management team both verbally and in a written format. These findings would be formulated into a weekly site safety inspection report for the attention of the client and the management team. In order to ensure compliance I carried out monthly site safety inspection audits which would include the presence of the PCs health and safety representative and the Project Manager. We would seek to build strong relationships with both site personnel and the management team by actively engaging in health, safety and environmental discussions to influence positive change in unsafe behaviour and unsafe conditions and highlight areas of good practice. Once, we assessed site safety we would audit the health and safety paperwork to determine if the statement of intentions, organisational structure and arrangements were implemented and adhered to in practice

and up to date. Our duties extended to include involvement in all weekly progress/risk management meetings from pre-construction and construction phases of the project. We actively identified and were involved in solving significant health and safety problems with practicable and proportionate risk management solutions in collaboration with our partners.

The purpose was to enable the safe deconstruction and dismantling of the Churchill Way Flyovers project from the pre-construction and construction phases to project completion. The deconstruction of the flyovers was a “cut and lower” approach where; 600 tonne spans of the flyover were wire cut, jacked up with self-propelled modular transporters (SPMTs) and then the cut sections jacked down using Sarlifts. The spans were then cut into 40 tonne pieces and removed to a storage facility in Gilmoor, Liverpool. These sections were to be recycled for use in other schemes across the city. The project was both challenging and complex due to the city centre location, public interaction and the tight 16-week deadline. There were many challenges to overcome, one of which was the dynamic environment and the complex nature of the activities coupled with ensuring day to day site safety and that public safety was not compromised.

Our full-time presence on site was invaluable in ensuring the safety of those involved in the project and those affected by the activities. We worked collaboratively with the PD the PC and their client using our skills and expertise to apply and interpret simple, sensible and proportionate health and safety solutions to ensure all activities were carried out safely.

Problem

Our client required a complete project health and safety compliance solution to enable them to fulfil their legal obligations under the Construction (Design and Management) Regulations 2015 whilst also ensuring other duty holders maintained the same standard of compliance in protecting the health, safety and welfare of persons at work and anybody who may have been affected by the works. Naturally, our client was fully aware of the complex and challenging nature of the works coupled with the tight deadline of just 16 weeks and the potential for unsafe acts and unsafe conditions which had the potential to cause harm to both workers and the public.

Solution

We all know that balancing the risk between our legal, moral and financial obligations can be difficult, particularly when health and safety is becoming more and more onerous with the language becoming harder to interpret and apply in practice. Imagine, a solution that tracked health and safety compliance from both the pre-construction and construction phases of a project utilising a “live” system which is a living document that is updated daily, tracks progress, good practice and areas which require improvement based on recommendations. This is a system that has already factored in compliance to all legal health and safety requirements and seeks to check against the criteria to ensure compliance from the start of a construction project through to handover. You may make the assumption that “it sounds like a complicated system” but the answer is “no”, in fact it’s a simple system, which is what makes it so effective and reliable. It can also be viewed or updated in real time anywhere providing an instant update on health and safety performance. In essence it’s a complete project health and safety management system that monitors the planning, management, monitoring and co-ordination of any construction project. This health and safety compliance tracker system was designed by myself and effectively implemented and used to monitor and track daily health and safety compliance.

Result

Unfortunately, despite all our best efforts the PC experienced an accident involving members of the public. A section of perimeter fencing adjacent to a public walkway was blown over on to passers-by due to adverse weather conditions. Although their injuries were not serious, they did require hospital treatment as a precaution. We carried out a comprehensive accident investigation to establish the immediate, underlying and root causes of the accident to prevent a reoccurrence. The outcome of our investigations was that the accident was preventable if the perimeter fencing bases were filled with water and if the solid panels were replaced with mesh panels the accident would not have occurred. Since the accident lessons have been learnt by the PC and steps were taken to action my recommendations. Again, the compliance tracker proved to be a useful tool for the client as all previous findings/recommendations and investigation outcomes were tracked to define and describe how we managed health and safety in practice to ensure our client fulfils their

legal health and safety obligation. Our client used the compliance tracker as a complete health and safety risk management solution to enable them to monitor both compliance and performance onsite. The most common problem was our client's inability to ascertain if they were discharging their health and safety duties and responsibilities and at the same time monitoring the duties of other duty holders. The result was a unique system different to anything they had seen or used before, one "live" system a living document that assures that at each phase of the health and safety process had been checked, approved and monitored throughout the construction phase. The compliance tracker provided the client with a reliable source of information which they could access anywhere providing instant updates to stakeholders and investors. It's also used as an invaluable tool to use in case studies and to perspective clients to demonstrate due diligence and duty holder compliance. The health and safety compliance tracker system can be tailored to any industry. For more information regarding the tracking system, please contact Ryan Young at info@mysafetyadvisor.co.uk