Airborne Dust Managed Successfully at James Cook Hospital

Patients and hospital staff adequately protected from dust during major construction work

March 2020

Client:

NHS South Tees Hospitals NHS Foundation Trust

Location:
South Tees

Featured Product Range:

Dustex® Dust Control Solutions

Keeping harmful dust at bay during construction of new hospital unit.

Construction of the TomoTherapy Unit for James Cook Hospital will utilise more space on site and allow the hospital to keep up with its growing demands. The workspace is surrounded by multiple busy treatment areas and it is essential that patients and staff suffer minimal disruption.

The Challenge

The hospital has a zero-tolerance policy on dust due to the risk of patients breathing in airborne aspergillus spores – a major threat to those with weak immune systems.

Construction of a new TomoTherapy Unit for the James Cook Hospital was particularly challenging for the main contractor as the workspace was surrounded on four sides by busy treatment areas. It was essential that hospital staff were able to go about their daily tasks with

Case Study Key Facts

- James Cook Hospital is a 1,024 bed major tertiary referral hospital, district general hospital and major trauma centre.
- The construction area was surrounded by multiple busy treatment areas.
- It was essential that patients and staff suffer minimal disruption.
- The hospital had a zero-tolerance policy on dust due to airborne aspergillus spores – a major threat to those with weak immune systems.
- RVT's Dustex® and Ventex® equipment were used during this project to prevent harmful dust escaping from the work area.
- A magnahelic differential pressure gauge was installed and monitored three times a day to ensure that no dust was escaping.

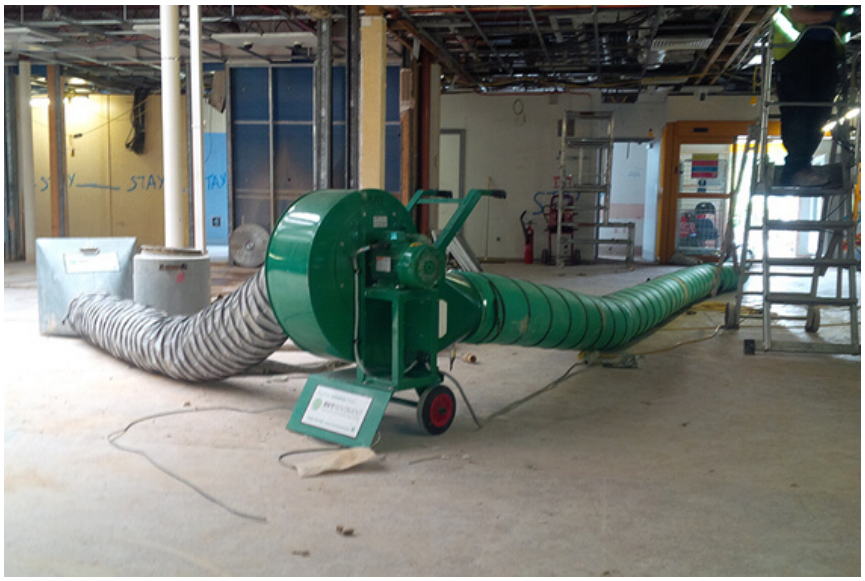
minimal disruption and that patients and visitors were not put at risk during construction works.

The Solution

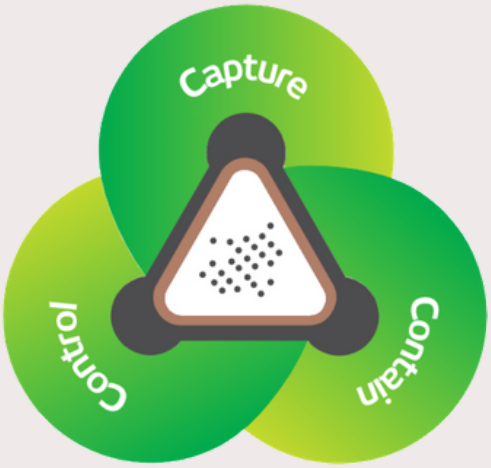
Before any works could commence the client, principal contractor and Infection Control all agreed that a 'belt and braces' approach was required to be certain patients were not exposed to dust. RVT Group provided assurance that staff, patient and visitor safety would be maintained at all times throughout the construction process.

To prove no dust was escaping from the work area, a magnahelic differential pressure gauge was installed and monitored three times a day with a signoff sheet to log that negative pressure was being maintained at all times.

With RVT Group's input, expertise and specialist equipment, all parties involved were satisfied that patients would not be affected in any way by dust that may be produced during construction works. The hospital's ZERO tolerance policy on airborne dust was upheld ensuring patients lives were not exposed to risk. The contractor demonstrated its commitment of care for those in close proximity to works, and built on its reputation for the highest standards of project management in the most critical environments.



The 3 Cs Method



RVT believe that effective dust control can be managed in three easy steps:

1. **Capture the hazard** - Position the dust extraction unit as close as possible to the activity to ensure the dust is captured at source.

2. **Contain the hazard** - The work area should be contained as much as possible to prevent dust/fume migrating into surrounding environments.

3. **Control the hazard** - Negative pressure can be applied to prevent dust migration further.