

CLARECASTLE SITE DECOMMISSIONING

Project Update No. 6 / Winter 2023

Welcome

to the sixth edition of 'Project Update'.

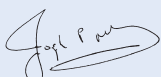
A significant amount of work has taken place since the last 'Project Update'. This edition provides an overview of what has happened and what can be expected over the winter period.

The main focus over the past few months has been on finishing the building and commissioning of the enclosure covering the first area of environmental concern, AEC1, to enable the excavation in that area to begin. We have been successful in meeting all deadlines and a key milestone - starting the excavation - was achieved. This required a significant amount of work by the Roche and Indaver teams as well as all the subcontractors and technical experts working on the project. The construction of the enclosure will now enable the excavation of contaminated soil to be carried out in a controlled manner. This will assure the safety of personnel working in the area and also ensure that the environment is protected and there are no nuisance odours associated with the activities impacting the community.

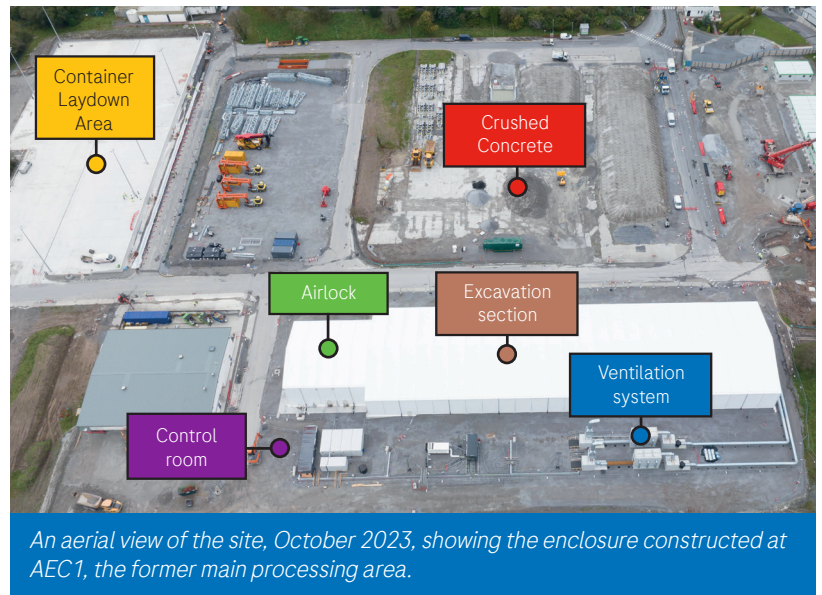
Work also continued on setting up the site infrastructure to enable the future activities associated with the remediation of the landfill and AEC2 to be executed in a smooth and controlled manner. This included the completion of the container laydown area (used to store the empty and full waste containers) as well as the truck holding area. In addition, the majority of the equipment that will be needed to deal with all aspects of the project has been delivered to the site. Delivery of the sealed storage containers that will be used to transport the waste from the site has started and is now a noticeable feature on the site.

All of this work is being undertaken to the highest possible standards to ensure that the objectives for the site can be achieved. Roche's overarching goal in decommissioning the site is to leave a positive legacy for the Clarecastle community and for Co. Clare.

Removing contaminated soil from the three areas of environmental concern will enable the site to be returned to a brownfield state, when the remediation is complete. This will pave the way for the possibility of future investment by another investor with the potential to deliver sustainable jobs for the community and the county.



Joe Murphy
Project Owner



An aerial view of the site, October 2023, showing the enclosure constructed at AEC1, the former main processing area.

The Enclosure

The enclosure is a critical element of the entire remediation project. It provides the engineering solution to contain any odours or emissions that might be generated during the excavation of the contaminated areas of the site that will be removed as part of this project.



The design, installation and construction of the 110m long x 26m wide and 13m high enclosure at AEC1 was undertaken by a team led by (from left): Sean O'Loughlin, Philip O'Connell and Justin Sammon (Roche Project Team) and Morgan Dwan, Peter Skehan and Brian O'Regan, Indaver, the main contractor for the remediation phase of the site decommissioning project.

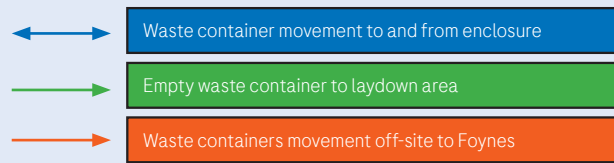
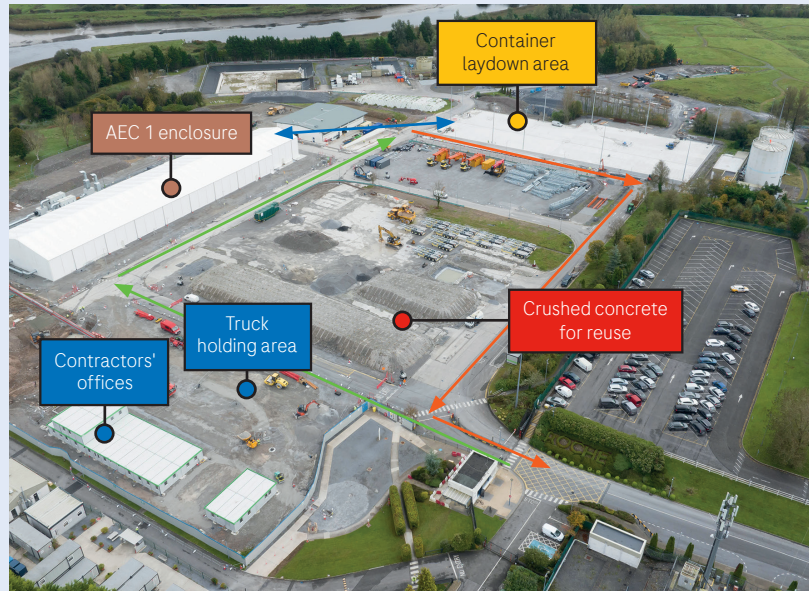
An ever-changing site... set up for streamlined truck movements

With the 'Remediation' phase now well underway, the layout of the site is changing to suit the requirements of this phase, most notably to ensure the smooth flow of traffic onto, through, and off the site.

All trucks entering the site will be held in a truck holding area, currently being constructed (as shown over).

A dedicated area is available where drivers can use welfare facilities as well as meeting rooms for briefings.

As also shown over, concrete crushed during the demolition phase is being used, in part, in current construction work.



A consignment of specially commissioned containers arrive on-site

One of the critical components of the project are the containers being used to transport the contaminated waste from the site to Holland where it will undergo thermal treatment. These containers are built to a very high standard so that the waste is completely sealed in the container and remains in this state until it is transported to its final destination. Almost 800 containers have been purchased to enable a reliable flow to and from the site. Over the past number of weeks, traffic to the site increased slightly, with the arrival of the initial consignments of containers. These are being stored in the container laydown area, as shown below.



Container reach stacker this is used to lift the containers on and off the trailers and stack them in the container laydown area.



A 'Movella' container mover transports the empty and full containers between the container laydown area and the enclosures.

Machinery modified for use in the enclosure

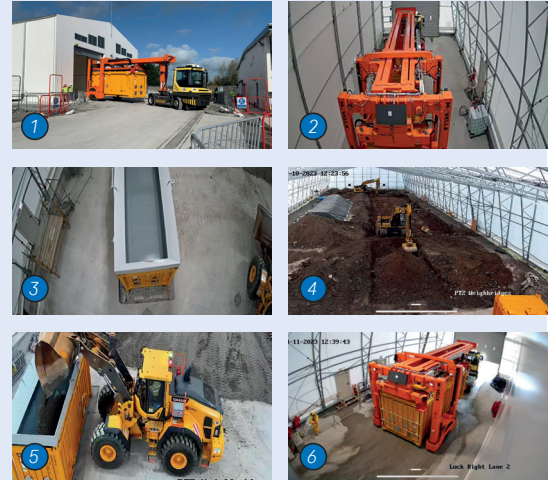
Diggers and dumpers used for excavating the contaminated soil have been modified for use in a negative pressure enclosure. Drivers operate the machinery from within air-filtered cabs. These modifications have been undertaken to protect the workers and the environment, which is a priority consideration of this project. All personnel working within the enclosure wear full Personal Protective Equipment (PPE). They enter and leave the enclosure via a specially designated entrance under strict supervision and control. All personnel must de-gown and shower before re-entering the main site when their shift is complete. This protocol is managed and supervised by the on-site Health & Safety team.

An environmentally safe excavation process

After a detailed planning phase, and testing of all systems within the enclosure, the first dig within AEC1 commenced on Friday, 20 October. This is scheduled for completion by the end of November. The contaminated soil will be transported in sealed containers to Shannon Foynes Port for onward shipment to a specialised treatment facility in Holland. The treated waste will be used in various construction projects in Holland. Once the excavation work in AEC1 is complete, the enclosure will be taken down. It will be rebuilt in the landfill area when this remediation phase commences in early 2024.

A summary of the excavation process is provided below:

1. Empty, closed, containers are transported by a machine, known as a 'Movella', from the container laydown area to the enclosure entrance.
2. The container remains on the Movella and is held in the air lock section of the enclosure until cleared to enter the excavation section.
3. On entry into the excavation section, the container, with lid removed, is placed on a weighing scale (built into the ground), and remains on the scale during the filling process. The container weight is monitored throughout the filling process.
4. The contaminated soil is removed by the digger and placed into the container.
5. A funnel (as seen in grey) is put over the container to ensure that the top of the container is kept clean during the filling process.
6. When filled, the container is closed, sealed and placed onto the Movella for exit into the air lock section where it is washed prior to exiting the enclosure to return to the container laydown area.



Monitoring and control procedures

Details of all aspects of the fill are controlled and monitored from the control room adjacent to the enclosure (as shown over). Details of all containers, their numbers and weight, are logged in accordance with regulatory requirements. All containers have a unique number, which is trackable from leaving the enclosure through to its arrival in Holland.

All filled containers from AEC1 are being held on-site in the container laydown area, pending commencement of their transfer via road to Shannon Foynes Port. The container and the HGV, on which it will be transported off-site, will be weighed prior to exiting the site to ensure that the combined weight complies with the regulated maximum permitted weights for vehicles and trailers on Irish roads.



Conforming to regulatory and environmental requirements



Airtight enclosures guarantee containment of dust, odour and vapour emissions

As stated throughout all stages of this Site Decommissioning Project, the protection of residents and the environment is of the highest priority to Roche and workplace safety is key to protect workers, residents and the environment.

The enclosure is designed to be airtight, thus ensuring that dust, odour and vapour emissions are contained with the enclosure during excavation. All emissions are purified using a charcoal scrubber system, as shown in the images above.

Monitoring adherence to environmental parameters

A dedicated environmental management team, based on-site, regularly monitors environmental conditions both on and off-site, in accordance with the Industrial Emissions Licence (IEL) issued by the EPA and planning conditions issued by Clare County Council.

- **Off-site Dust Monitoring** undertaken at the following areas during Q1 - Q3 2023 was all well within acceptable limits:
 - River Fergus Bridge - R458
 - Slattery's Field - Clarehill
 - Power's Pub - Patrick SreetThe settleable dust (Bergerhoff Method) mg/sq.m/day permissible limit is 350; all readings have been below this limit and are fully compliant.
- **Nitrogen dioxide** levels at the same sampling locations are also fully compliant.
- All **groundwater emission** parameters are fully compliant with the requirements of the IEL.

Full details and charts on all aspects of environmental monitoring will be regularly uploaded to www.rocheclarecastle.ie. The website is currently being redesigned.



Planning a sustainable future for the Clarecastle site

We were delighted to welcome a wide cross-section of our key stakeholders to the site in July to showcase the work being done on-site, to present our plans for the completion of the project, and to outline the process of planning a future for the site post remediation.

During this event, Roche senior management presented a letter to Clare County Council offering the Council **‘the benefit of a right of first refusal in respect of the Roche site in Clarecastle after the remediation works are complete’**. This letter was presented to Pat Dowling, Chief Executive, Clare County Council by Isabel Boissonnas, Global Legal Counsel and Company Director, Roche Ireland.

In accepting the letter, Mr Dowling said that Clare County Council will complete a full Masterplan for the site that will set a clear vision for its future as a location for investment and employment in the Mid-West region.

Dr. Georg Singewald, Head of Global Manufacturing Science, Engineering & Sustainability, Roche Basel said: “Roche’s objectives in decommissioning the 88-acre site are twofold - to deliver a site suitable for the creation of sustainable jobs into the future and to leave a positive legacy for the local community, Clare, and Ireland.”

Representatives from Roche Global Headquarters in Basel, Roche Products Dublin, Clare County Council, the Clarecastle community, IDA Ireland, Enterprise Ireland, and the Environmental Protection Agency, together with elected representatives, attended the on-site event in July.



Pictured at the event (l-r): Dr. Georg Singewald, Head of Global Manufacturing Science, Engineering & Sustainability, Roche Basel; Isabel Boissonnas, Global Legal Counsel and Company Director, Roche Ireland; Cathaoirleach of Clare County Council, Joe Cooney; and Pat Dowling, Chief Executive, Clare County Council. Photo by Eamon Ward.



Joe Murphy, Project Owner/Site Lead, Roche Clarecastle Site Decommissioning Project (centre) welcomed representatives from Roche Global Headquarters, Basel, and the main contractor for the project, Indaver, to the on-site event. Photo by Eamon Ward.

Roche applauds Clarecastle on first win in SuperValu Tidy Towns Competition



We extend our congratulations to the Clarecastle Tidy Towns committee on attaining the town's first medal in this national competition, most significantly, in the 60th anniversary year of the village's first entry into this prestigious competition.



Being awarded a bronze medal is a terrific achievement and is due to work of the committee and all the volunteers from so many community groups, businesses and organisations in Clarecastle. They have worked tirelessly to improve the aesthetics and ambiance of the village on so many levels.

The improved scoring attained in all areas of adjudication is a credit to all involved. Roche is pleased to note that the steps being taken to minimise any disruption to the community due to the movement of project-related traffic through the village was noted in the adjudication report.

We look forward to identifying ways in which we can continue to contribute to the committee's endeavours, whose sights are now firmly set on achieving a gold medal in the future.



Joe Murphy, Roche Clarecastle Project Owner (back row left) was delighted to join the Clarecastle Tidy Towns Committee and volunteers to celebrate their bronze medal achievement. Photo courtesy of John Power.

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