

Newhurst ERF Agenda Document



Newhurst Energy Recovery Facility Local Liaison Committee (LLC) Meeting Monday 12th April 2021 from 3.00 to 1700 by Zoom

Agenda

Meeting Link: Join Zoom Meeting

<https://zoom.us/j/95538838839?pwd=WNNWTEw1bkRFVfDtWWZMUUVkSUdMQT09>

Meeting ID: 955 3883 8839

Passcode: 881875

- | | |
|---|----------------------|
| 1. Introductions of new members | Chair |
| <ul style="list-style-type: none">• Ms Hammersley• Ms Yang• Mr King | |
| 2. Minutes of the previous meeting | All |
| 3. Matters Arising not on the agenda | All |
| 4. Terms of Reference | |
| (now approved; 7:1 in favour the rest abstaining) | To note |
| 5. Construction update | Covanta/Biffa |
| 6. Questions on monitoring (replies received from Mr Revell) | Mr Revell |
| 7. Planning Update | Covanta/Biffa |

Newhurst ERF Agenda Document

8. Date of next meeting

Chair

9. AoB

All

NEWHURST ERF LOCAL LIAISON COMMITTEE (LLC) MEETING NOTES

MEETING HELD 12TH APRIL 2021, 1500- 1700HRS (VIA ZOOM)

In attendance:

Cllr Christine Radford (CR)	LCC County Councillor, Shepshed
Cllr Max Hunt (MH)	LCC County Councillor, Loughborough North West
Cllr Jane Lennie (JL)	Shepshed Town Council
Cllr Peter Grainger (PG)	Shepshed Town Council
Cllr Joan Tassell (JT)	Charnwood Borough Council Shepshed West
Cllr John Savage (JS)	Charnwood Borough Council (CBC) Shepshed East
Julia Howard (JH)	Local Resident
Peter Wood (PW)	Local Resident
Peter Cunnington (PC)	Local Resident
Mr Ken King	Local Resident
Ms Jane Hammersley	Local Resident
Daniel Galpin (DG)	LCC Planning Officer
Mark Revill (MR)	Environment Agency (EA)
Ann Green (AG)	CBC Environmental Protection
David Spencer (DS)	Covanta
Craig Burdis (CB)	Covanta
John Orchard (JO)	Biffa
Mary Tappenden (MT)	Biffa
Dr David Best (DPB)	Independent Facilitator

Apologies for absence: Alan Twells (CBC)

Disclaimer: Membership of the LLC does not imply either support for, or objection to, the Newhurst Energy Recovery Facility (ERF) development. Rather it is an opportunity to facilitate the flow of information between the developer and local communities and vice versa.

1. Welcome and Introductions

- 1.1 David Best welcomed members to the meeting.
- 1.2 A copy of the papers circulated with the Agenda will be available on the Newhurst ERF website after the meeting has concluded.

The link for the website is:

- 1.3 DPB stated that the meeting would be recorded to help prepare the meeting notes, but the recording would be deleted once these were approved at the subsequent LLC meeting. The transcript would not be published.

2. Welcome to new Members.

DPB welcomed Mr King and Ms Hammersley to the Committee.

2.1 Ms Hammersley noted that she was employed by a US based business based in Phoenix but that she and her family have been resident in Shepshed for 25 years, before which I lived in Loughborough all my life. I believe that I can make a positive difference to Shepshed, being part of the interface between Newhurst LLC my local community. Having schooled my daughter here, I have an extensive network through which to communicate the matters of the Committee.

2.2 Mr King noted that he had previously been Health and Safety Manager at Taylor Bells but had retired at Christmas, and was looking forward to participating more in community matters and in particular to the work of the Committee.

It was noted that Ms Landy Yang had also been selected to the Committee but that no information had been received as to her attendance at this meeting. DPB will follow up.

DPB also informed the committee that due to an oversight Mr Mark Needham, a very suitably qualified candidate, had had his application overlooked. After a short discussion it was agreed that Mr Needham would be invited to join the committee, increasing the representation of Loughborough members. In reply to a question as to whether this extended the radius of interest of the membership, Mr Spencer pointed out that the application had been received in response to the call for applications in the paper newsletter, which had only been sent to those households within three miles of the development.

2. Minutes of the Previous Meeting.

2.1 These had been previously circulated. Mr Revill drew attention to the incorrect spelling of his name. This has been corrected, there were no other comments, and the final version sent to Covanta/Biffa to be posted on the website.

3. Matters Arising not on the Agenda.

3.1 Mr Wood raised a question on Traffic Management- this was added to the agenda.

3.2 Following a point raised by Mrs Howard, it was agreed that the issue of the three mile radius from the plant and whether it should be extended would be revisited at commissioning.

4. Terms of Reference.

These were noted as agreed and will be put on the Website.

5. Construction Update.

Mr Burdis presented the construction update, using a slide deck which has since been put on the web site and the link to which is here: [Newhurst Energy-from-Waste \(covanta.com\)](https://www.covanta.com/newhurst-energy-from-waste)

The key points were:

5.1 Background

- Newhurst is an Energy from Waste plant handling 350,000 tons of waste per annum. In full operation, it will generate about 42 megawatts of energy
- The contract was closed in February 2020, This is the tenth month into construction.
- The plant is being constructed on behalf of Covanta by a consortium led by Hitachi.
- When it is operational it will be covanta who will operate the plant and it is scheduled to complete in the second quarter of 2023.
- Procurement is about 72%. Complete,
- Manufacturing of components is about halfway complete.
- Covanta are happy with this progress; manufacturing of the main components (being the turbine, the boiler) is progressing particularly well.

5.2 Activities on site:

- Construction is about 3rd of the way through. Up to now the main activity has been to complete the Civil Works.
- Now the steelworks are about to begin in earnest to make ready for the installation of the Plant; the Boilers and turbines.
- The first part of the steelworks is that which will rise above the bunkers. This steelwork is just beginning to be visible from the M1 exit. This will be the highest part of the structure.
- An Audit of the Considerate Contractors Scheme has resulted in the scheme being awarded 40 out of a maximum 50. A score of excellent in all categories. They aspire to get even higher scores on the next occasion.
- The objective is to do the boiler pressure test at the back end of this year, a significant milestone in the project.
- Then look to commence the cold commissioning this summer and start receiving waste towards the back end of 2022.
- A lot of the work to date has been in the infrastructure underground services specifically laying in the concrete slabs to support the structures and these slabs make up the building footprint. All the concrete slabs are complete, except for the tip area, which needs land forming and levelling. Requiring some earthworks, before the concrete slab laid.
- Now that civil works are nearing completion, the next process elements of the construction are being initiated.

5.3 Other Points:

- Work will concentrate for the next few months in the boiler hall to start bringing pieces of the boiler to put together pre-assemble and lift in.

- Factory inspections continue to ensure the quality of prefabricated components, although these are being carried out remotely due to the pandemic. This has proved satisfactory.
- It is hoped to be able to resume physical inspections before delivery.

5.4 Covid Plan and actions

- Essentially our COVID-19 Management Action Plan is the same as it was before when reported in January and will remain in place as long as needed.
- Since we the beginning of the project there have been about 23 positive cases of Covid out of 300 people on site.
- Social distancing in the outdoor areas particularly at breaks has been an important area for focus, and that's why we have a medic on site so that testing can be carried out as needed, with rules enforced as to when someone needs to be quickly removed from the site.
- There have so far been over 400,000 project hours. And one "lost time" incident, arising from a tractor driver over-reached and as a result of a pre-existing condition suffered an injury and a few days were lost.
- 400,000 project hours is the equivalent of one person working 40 hour week for 200 years. In the context of this volume of effort it was noted that one short lost time incident, was a good achievement. All actions are subject to government advice, which is received via the Construction Leadership Council.

5.5 Questions on Construction Update.

- **Councillor Joan Tassel;** Originally the roof line was to have contoured to match the contouring of the surrounding hills Is this still to be the case? **Mr Burdis** replied that once all the plant had been put in place the roof seen in the Agenda phot would be lifted and then lowered into place so that square buildings currently visible would be masked by the roof design.
- **Mr Peter Grainger-** It may be out of Covanta scope but when will the electricity substation point of connection be built? **Mr Burdis** agreed that it was out of Covanta control and was the responsibility of Western Power Distribution, but that the plans were going through the approval process and he believed that it was a matter of the Section 106 agreement being signed. Construction may be due to start this month (April or next).
- **Councillor Jane Lennie.** In the presentation waste being received from end 2022 was mentioned and yet the plant is not due to begin operation until 2023? Mr Burdis explained that in order to test each element of the process it was necessary to bring waste in well before the start of operations. As planned at present waste was due to be received in October 2022.
- **Mr Ken King** made the point in relation to the above response that the developer will need to communicate frequently and effectively about both hot

and cold commissioning. **Mr Spencer** reassured the committee that this was exactly what was planned.

- **Councillor Max Hunt** requested a clear timeline so that the community could see clearly what was being delivered at each point. **Mr Burdis** offered to expand the timeline on the plan to provide a high-level view of what would happen, when, in the project. **Councillor Hunt** also asked that if communications were being prepared to go to the community at particular points of progress, these could be shared with the Committee slightly in advance to enable members to provide timely responses to their communities.
- **Mr Peter Wood** enquired where the large components are being made for the plant. **Mr Burdis** replied that unfortunately Europe are further ahead with this sort of plant than the UK and that therefore manufacturing capacity in the UK is insufficient to supply some of the larger elements of the construction. For example, turbines are made in the Czech Republic and Boiler in Croatia. There are however 43 UK suppliers.
- The importance of local supply was stressed in the meeting and Covanta replied that where possible they were committed to local sourcing.
- In relation to this **Mr Spencer** stressed local recruitment for the 40 posts that were being recruited for the operation of the plant. These roles will be brought on as needed and prior to the full operation of the plant. There are also many other roles ancillary to the plant which would be recruited locally.
- **Mrs Howard** asked what changes would need to be made to the stack of the incinerator in light of future regulations on particulates <2.5 microns. **Mr Burdis** replied that the design already catered for these requirements and that therefore no changes were required.
- In discussing the **flue gas treatment process**, **Mr Spencer** reminded the Committee that information on this topic was already on the project web site, together with an animation that shows the viewer how waste moves through the cycle and how emissions are controlled and cleaned at each point.
- **Councillor Christine Radford** requested advance warning when, for example large elements of the construction would be arriving, since exceptional loads for instance may give rise to traffic congestion or other issues. It was confirmed that the Committee would receive advance copies of newsletters etc before they were generally distributed.
- **Ms Jane Hammersley** suggested that more visual content on the home page of the website might help explain more clearly what was happening at any particular point.
- **Mr Spencer** responded that Covanta had increased the amount of film footage being produced and made available as a substitute for the time being of being able to take visitors physically round the construction site. These are 2.5 minute films including aerial and time lapse footage that show what is happening on the ground.
- In the discussion of this **Ms Hammersley** suggested that the films currently being planned might incorporate views from local people, using some of the

questions that had been raised in the Committee to provide a depth of information to local communities. This was agreed to be a good proposal. Input would need to be consistent with the time available for the film.

- **Councillor Jane Tassell** asked about the possibility of using carbon capture technology at the plant, although recognising that in the past this had been ruled out. In replying it was stated that there is no currently known technology applicable to the Newhurst project which could be used, although it is a fast moving area of technology and is kept constantly under review. A supplementary question was asked about the capture and control of Fly Ash.
- **In response, Craig Burdis** distinguished between two types of residue from the plant. There are two different ash type residues. We have what we call air pollution control residue, which is PCR. This material is trapped by a bag filter and is contained within a silo on the plant. Since it is high in Lime it can be recycled, so that it is transported by tanker to a recycling point. It is recycled into various other products such as building materials.
- The second type is bottom ash which is also stored and then removed to be processed elsewhere. This is not at risk of being airborne since there is up to 20% of moisture in it. This contains moisture as it needs to be cooled as it leaves the incineration process. This is also then removed from site for recycling.
- **Mr King** asked a further question as to the technical approach to recovering and treating the Pollution Control Residue. **Mr Burdis** explained that this was not a water-based process of recovery and undertook to provide detailed technical information outside the meeting. (**Note**; this information was provided and will be accessible via the Web site. The flue gas treatment process is a dry filter process which recovers the PCR and it is then stored in a secure silo prior to being removed from the site by tanker.)

6. Questions from Mrs. Howard to the Environment Agency (previously circulated with EA responses)

- Mr Mark Revill of the EA apologised for a silence in relation to correspondence immediately prior to the meeting which had gone to his “junk” e mail folder.
- Mrs Howard explained the questions that she had put had been adequately addressed but that she was concerned to understand the way in which Air Quality was monitored by Local Authorities in this case Charnwood Borough District.
- Mr REvill explained that the air quality standard applied to the air across the areas for which the local authority was responsible. The quality measured was the result of a myriad of sources which might act to reduce air quality, for example vehicle emissions, wood burning stoves and the Newhurst plant.
- In giving the permit to the plant the impact of the plant’s emissions was modelled and even at its maximum was estimated to have an impact of less

than 1% on the local air quality. This was an outcome shown in the last Air Quality Modelling Report that was produced.

- Mr Revill also commented on the Waste Incineration Directive of the EU, in which a 4 hour period of breaching the regulation is allowed. He pointed out that if no operation in breach of the directive was allowed at all the effect would be to require the plant to stop and to become cold. The effect of this when it restarted could easily also be deleterious for the local air quality and therefore the 4 hour window was to allow for the problem to be brought under control without the need to close down the plant.
- In the case of Newhurst the 4 hour limit is written into section 3 of the Permit. Should the issue not be resolved in that time, the plant would be required to shut down.

7. Planning update

7.1 Mrs Tappenden of Biffa advised the Committee that:

- As the design and construction of the plant moves ahead, refinement of the detail of the design requires slight variations to the planning consent.
- This is what is now happening and the changes though slight do require planning approval. For example, the gatehouse will be moved to better accommodate traffic entering and leaving the site. Some door ways will need to be moved.
- Plans for these changes have been drawn up and have been shared with the planning authority and will be shared with the committee in due course.
- No formal consultation is needed and the changes are not expected to be contentious.
- In response to a question about the accessibility of the S106 agreement it was agreed that this should go on the website. It would not be amended by the application changes being discussed.

7.2 Other questions around planning

- In relation to a question about Community finding, Covanta explained that there was no money currently available but the establishment of a community Trust Fundo or similar had been agreed in principle and that it would probably begin at the point of operation and that further reports would be provided.

8 Date of the Next meeting of the LLC

- The next meeting is proposed to be held on the **Monday 5th July, from 1500 to 1700** an Agenda and invitation will be issued nearer to the time. At this time it will be planned as a Zoom meeting though there remains the option of a physical meeting if circumstances permit.

10. Any other business

10.1 Mr Wood asked about the issue of traffic management in the context of the volume of traffic entering the site from the A512. He asked if it would be possible

for the Traffic Management plan to mandate now that traffic must approach the plant from the M1, pointing out that there was very good access to the M1 from the West without using the A512 to get to the plant.

Covanta stressed that the traffic management strategy was kept under permanent review and that any changes or implementation actions would be implemented on a as needed basis.

Mr Wood stressed the importance to residents of limiting traffic flow down the A512 This was noted.

- 10.2 Councillor Lennie also requested a commitment from Covanta to require once the incinerator is in operation, to limiting vehicles only to and from the M1. This is because Newhurst to the M1 is the only widened area along the Shepshed section of the A512.

10.2 Councillor Hunt's question on fire regulations will be held over to the July meeting.

POSTSCRIPT

1. Mr Needham has accepted the invitation to join the committee; no communication has so far been received from Ms Yang.



Newhurst ERF Local Liaison Committee Project Update April 2021

Newhurst Energy Recovery Facility

	Newhurst
Location	Leicestershire, England
Capacity (gross)	350 ktpy; ~42 MW
Financial Close	February 11, 2020
Engineer, Procure, Construct (EPC)	Hitachi Zosen INOVA (HZI)
Operator	Covanta
Scheduled Completion Date	Q2 2023

Design (72% complete) and Procurement & Manufacturing (48% complete) progressing on time

Manufacturing of main components, including Turbine and Boiler, progressing on time

Construction (31% complete) progressing on time

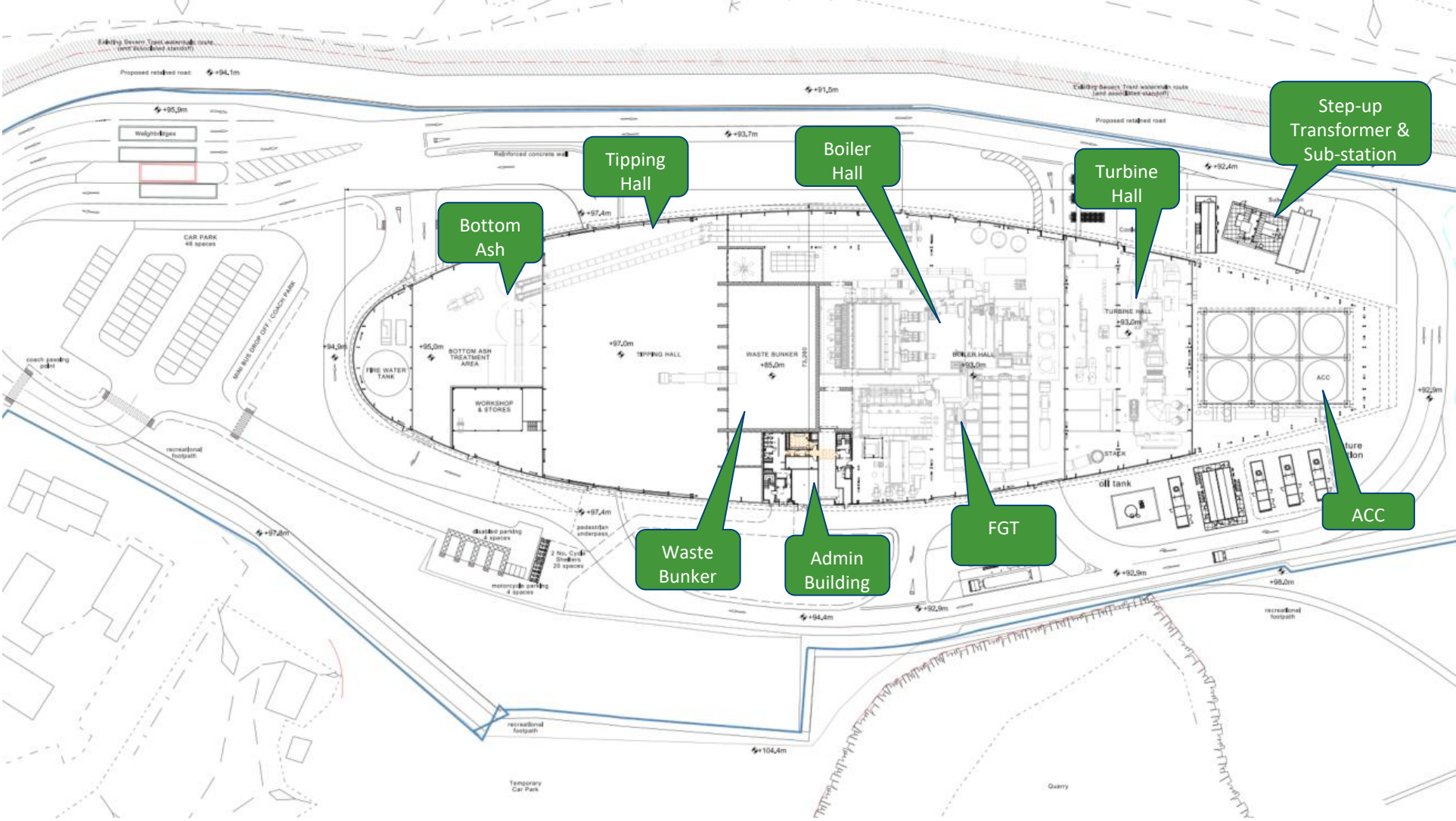
Building Steelwork erection has commenced

Civil Works nearing completion ready for handover to Mechanical & Electrical Contractors

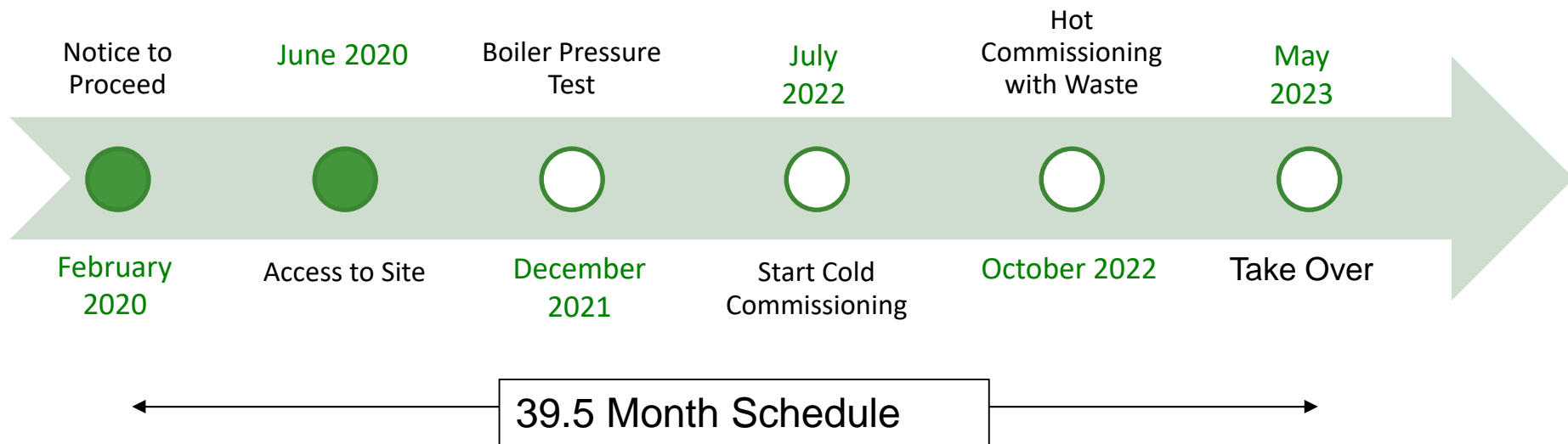
Awarded a score of 40/50 by the Considerate Constructors Scheme ('Excellent' in every category)



General Arrangement



Project Timeline



October 2020



January 2021



April 2021



April 2021



Progress Photos



View looking north



View looking north-west



Bunker Steelwork



View looking west

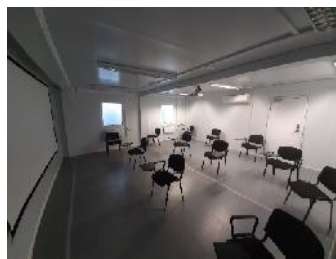


Waste Bunker

COVID-19 Management & Action Plan

- All arrangements are in line with current UK Government guidance and Site Operating Procedures published by the Construction Leadership Council
- UK Government position since the start of the pandemic has been that where suitable measures can be implemented, construction sites in England should remain operational.
- The Plan for the Newhurst project includes:
 - All persons arriving at site are subject to temperature screening.
 - Workforce start, finish and break times are staggered to avoid large groups.
 - Site Welfare and Offices have been designed to be large enough to enable social distancing.
 - Additional handwashing facilities and sanitiser.
 - Expanded the site cleaning team to ensure areas are cleaned and disinfected frequently.
 - Masks are being worn when moving around offices.
 - Site support staff working from home where possible.
 - Full-time Medic on site with Covid-testing capability, should it be required.
 - 'Misting' tunnels in operation to disinfect clothing.

COVID-19 Site Measures



3 Month Lookahead

- Civil Works package nearing completion.
- Building Steelwork will continue, Building Cladding will commence.
- M&E Contractors will commence on site, beginning with Process Steelwork, then Boiler Erection.
- Factory inspections to check on manufacturing progress (remotely due to Covid-restrictions).
- Non-construction related visits will hopefully be able to commence soon – subject to Government and Construction Leaderships Council advice.

- ***Any questions?***

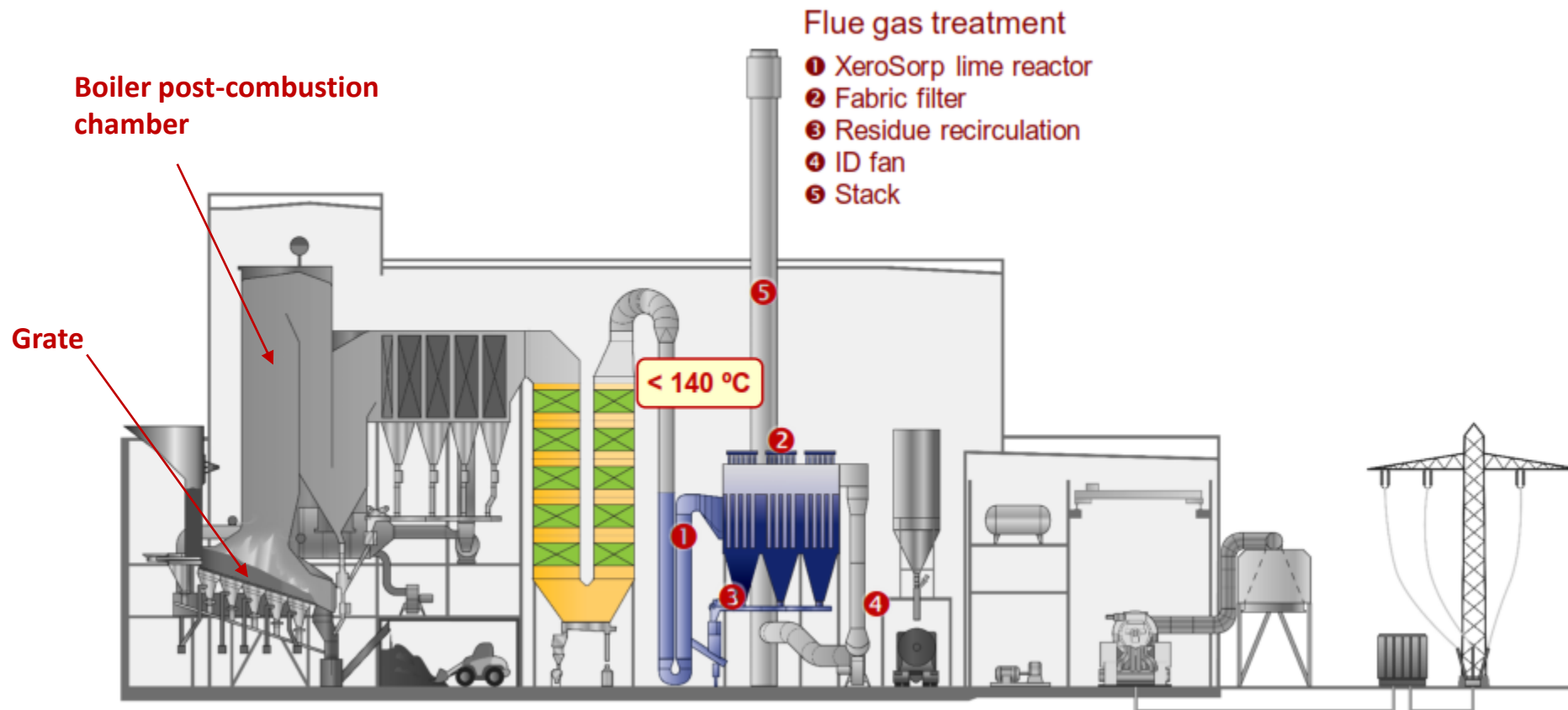
COVANTA

Powering Today. Protecting Tomorrow.

Newhurst ERF - Flue Gas Treatment

Flue Gas Treatment (FGT)

Newhurst ERF will incorporate state-of-the-art air pollution control technology to cool and clean the flue gas. The process is a combination of Selective Non-Catalytic Reduction (SNCR) and Dry Flue Gas Cleaning.



Selective Non-Catalytic Reduction (SNCR)



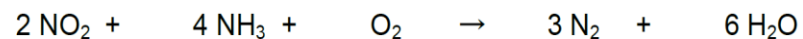
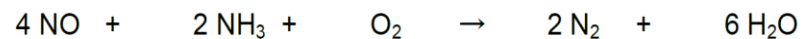
The HZI SNCR process has been perfected through years of operating experience and extensive R&D works.

Harmful nitrogen oxides (Nox) are produced in every combustion process. However, they can be converted into their basic elements - nitrogen and water.

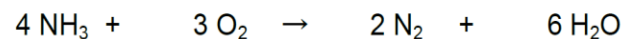
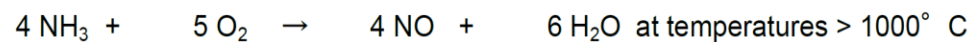
The reduction takes place within a temperature range of 850 to 950 C.

This range exists in the post-combustion chamber of the furnace. In this area, ammonia water is injected into the flue gas.

Main reactions

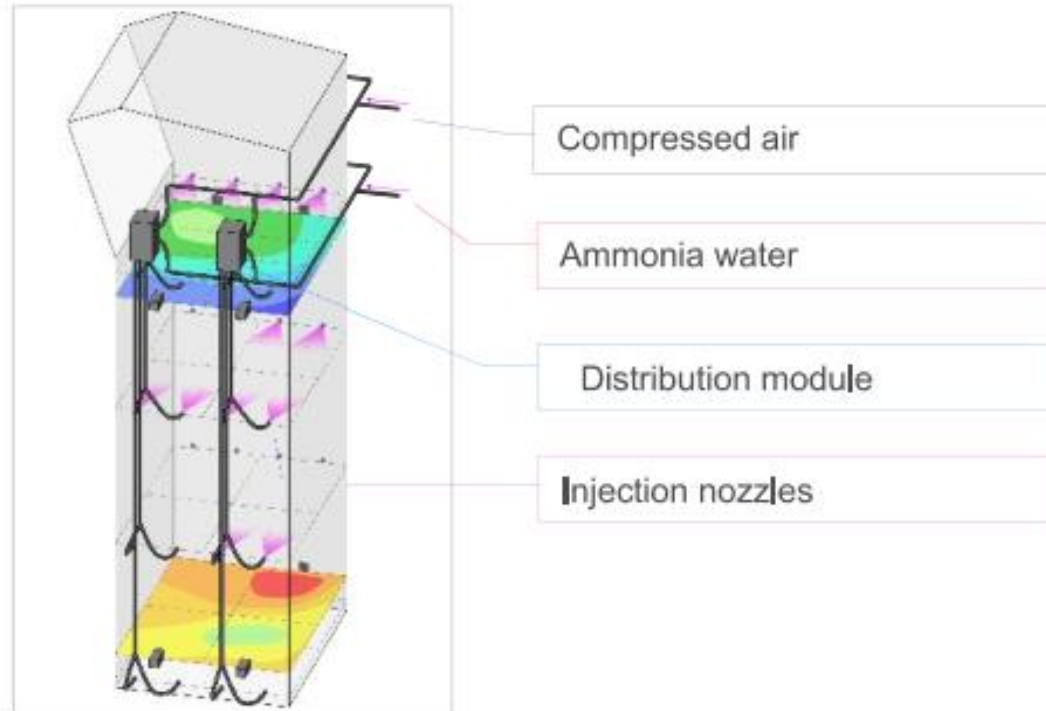


Secondary reactions



Selective Non-Catalytic Reduction (SNCR)

Hitachi Zosen
INOVA



- Located in the post-combustion chamber.
- Divided virtually into several vertical segments.
- Each segment consist of:
 - Distribution module
 - Injection nozzles on several levels
- The configuration of the nozzles ensures full-area coverage of the injection medium across the entire cross section.

Dry Flue Gas Cleaning Process

Purpose is to remove:

- Dust particles
- Acidic gaseous contaminants by neutralization (hydrated lime)
- Organic pollutants, mercury and other heavy metals

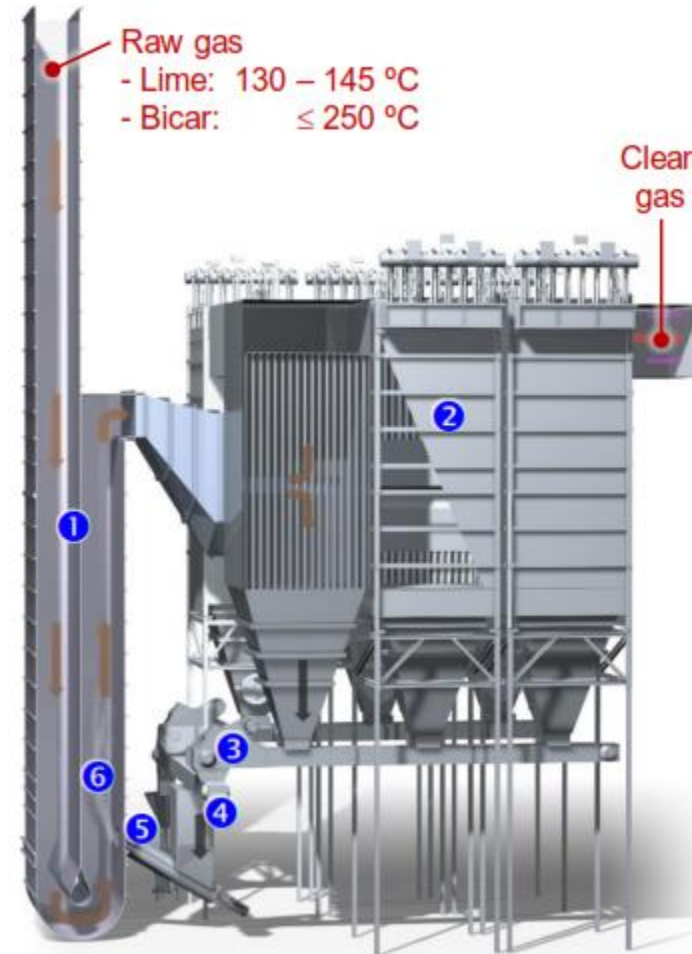
Main Components of system

- Reactor with additive injection
- Fabric filter for solid-gas separation
- Residue recirculation - to achieve the best adsorption performance with minimum additive consumption, solids from the fabric filter are recirculated into the reactor.

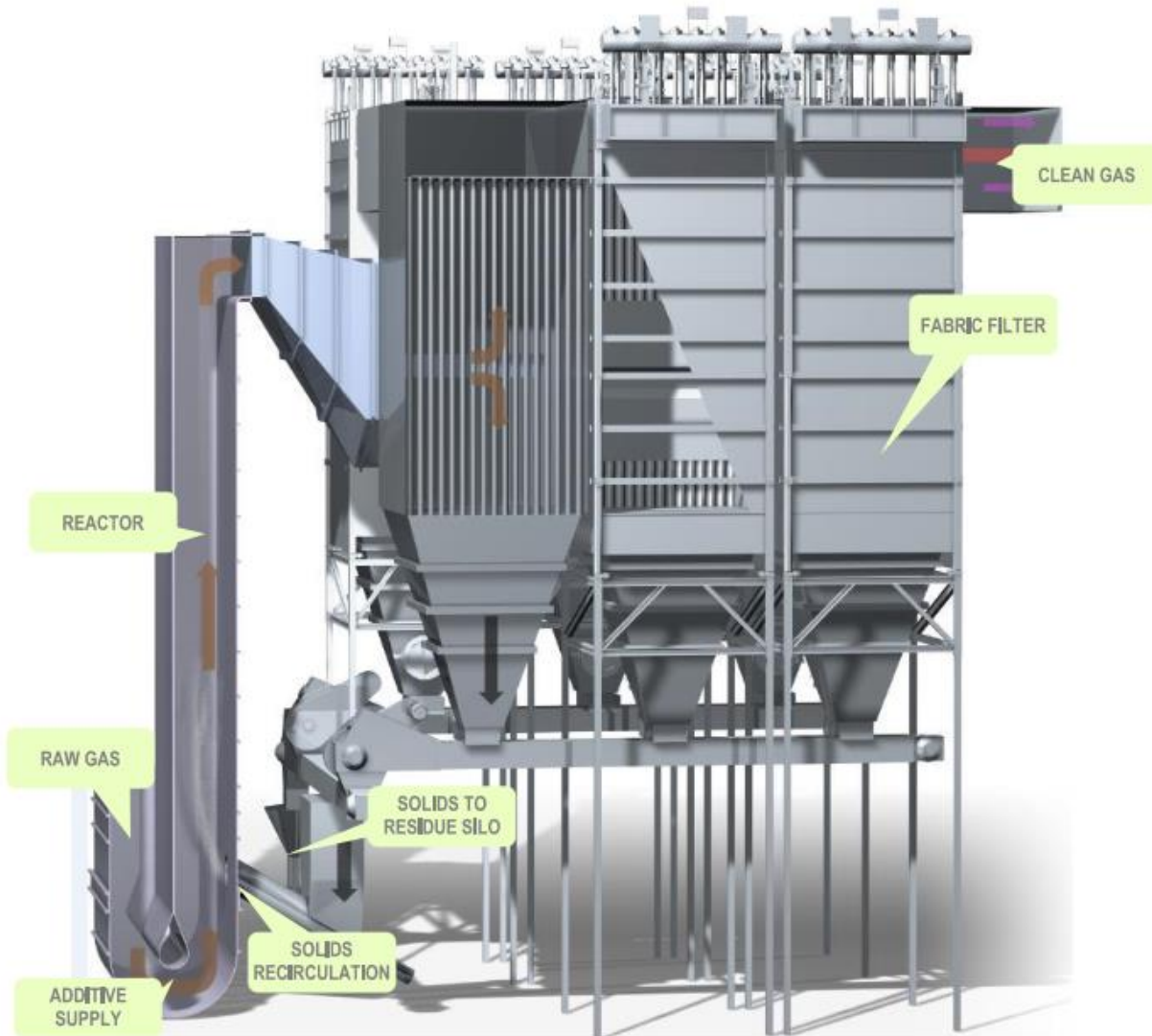
XEROSORP® Reactor

Main components of the *XEROSORP*® process:

1. Plug flow type **reactor with additive injection**.
2. **Fabric filter** for solid-gas separation.
3. Mechanical system for **residue recirculation**.
4. Discharge of residues into the **residue silo**.
5. **Screw conveyor** to feed residues into the reactor.
6. **Injection of additives** (pneumatic conveying):
 - Hydrated lime
 - Powdered activated carbon



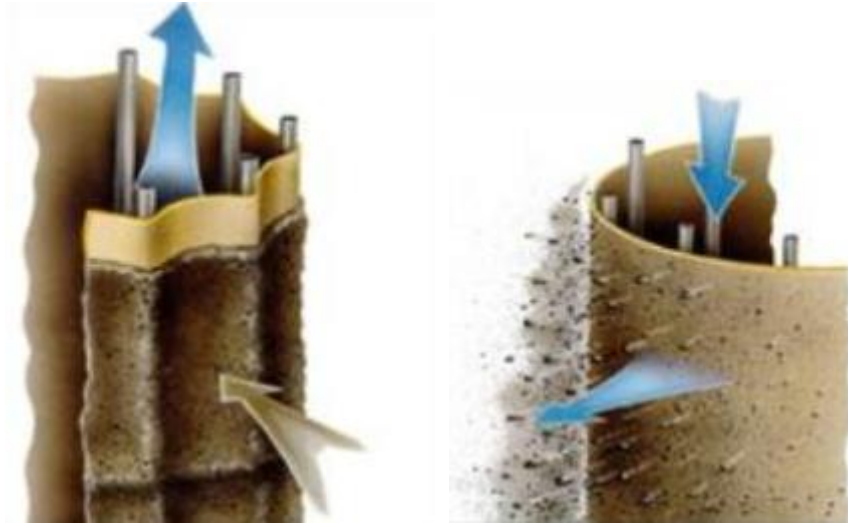
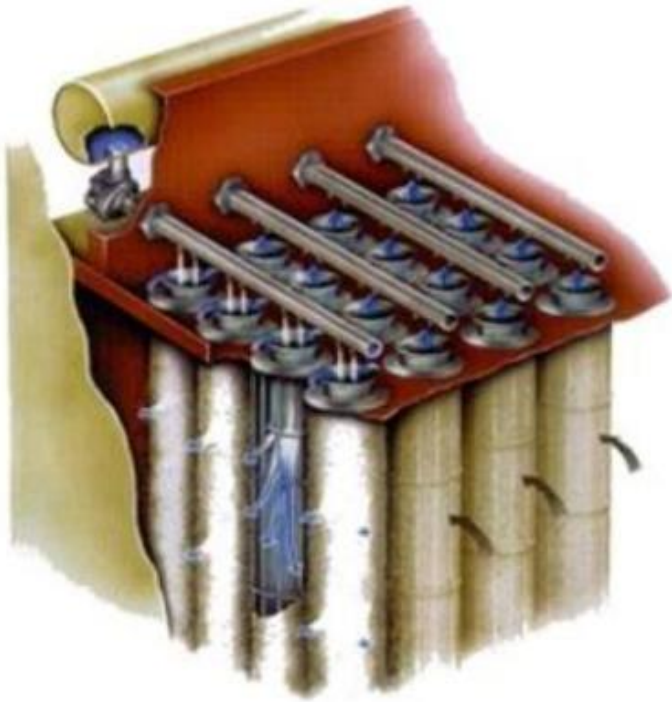
XEROSORP® Reactor



The dry flue gas treatment process is designed by HZI specialists to remove all dust particles, most of the acidic gaseous contaminants by neutralisation with hydrated lime and organic pollutants as well as mercury and other heavy metals by adsorption on activated carbon.

The system consists of a reactor with additive injection, fabric filter for solid-gas separation and residue recirculation.

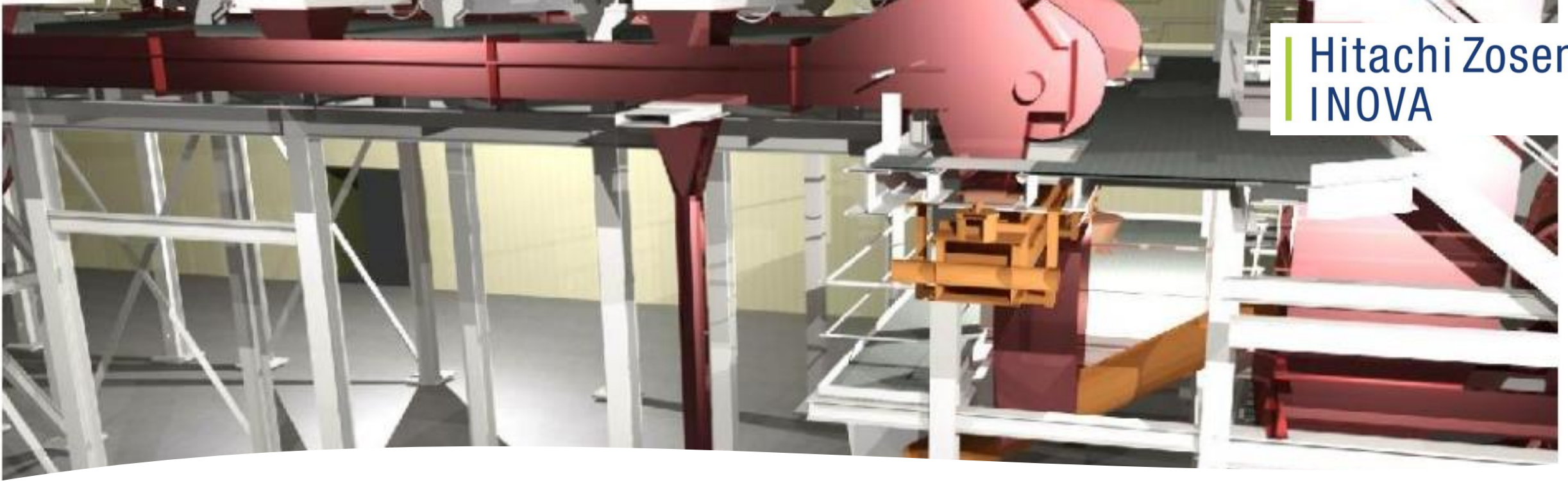
To achieve the best adsorption performance with minimum additive consumption, solids from the fabric filter are recirculated into the reactor.



Fabric Filter

The fabric filter is used for the separation of solids from the flue gas. In the physical process of separation, the solids are filtrated onto the surface of a gas-permeable fabric.

Due to the intensive contact of the flue gas and the adsorbents in the filter layer the removal of pollutants from the flue gas is further improved.



Residue Circulation

Solids collected in the filter hoppers are transported with chain conveyors to collecting bins. From the first collecting bin the solids are recirculated back to the reactor.

Overflown residues coming directly from the first to the second collecting bin are pneumatically transported to the residue silos.

Induced Draught Fan

The induced draught fan (ID fan) generates the required negative pressure in the combustion chamber and is conducting the flue gas from the furnace through the flue gas cleaning system to the stack.

The ID fan rotation speed is regulated by the combustion chamber pressure controller.



Stack

The stack expels the purged flue gas after the flue gas cleaning system to the atmosphere.

At Newhurst ERF, the 96.5m high freestanding stack contains a single flue.

Both the cylindrical support structure and internal pipe is made of steel. The individual stack pipe sections are joined to form a gas tight seal.

An external safety ladder provides access to the work platform for maintenance activities.



Hitachi Zosen
INOVA

Emissions Measurement (CEMS)

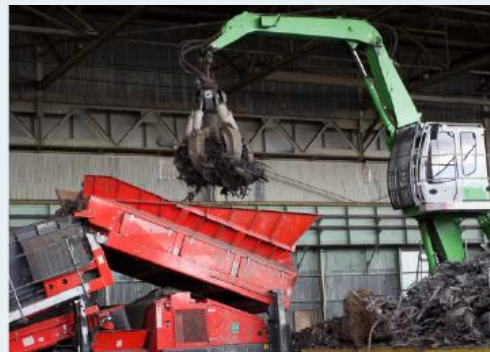
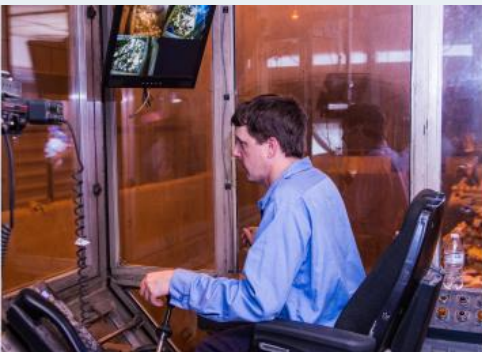
The emission measurement system monitors the flue gas properties and detects the composition in the flue gas duct after the last flue gas cleaning stage or the stack respectively.

The instruments are installed directly on the flue gas duct. For the gas concentration measurement, a small flue gas stream is extracted through a heated extraction line and conveyed to the measurement system installed in a separate emission measurement enclosure.

The emission management system is designed to meet the particular requirements of the operating permit for the plant. It complies with the applicable directives for installation and quality assurance.



Thank You



Questions put to Environment Agency regarding Particulates

Answers to J Howard questions of 20th March 2021- Provided by Mr Revill of EA

The questions 1 and 2 are mistaken in that they refer to PM2.5 as having a BAT standard. The new BAT standard from December 2023 will be an emission limit of 5mg/m³ for total dust (i.e. all particulate matter) as a daily average. The permit will be reviewed and varied before that time to reflect this. There are a whole range of potential outcomes for the operator not complying with a permit condition - a link to our enforcement and sanctions policy is here

<https://www.gov.uk/government/publications/environment-agency-enforcement-and-sanctions-policy/environment-agency-enforcement-and-sanctions-policy>

Q3. The background figures given by the operator's consultant were checked by our air modelling experts and were considered to be representative. I believe the figure quoted for the PM2.5 air quality objective was accurate in 2018.

Q4. There will be no impact on the permit itself.

Q5. The reduction in emission limit value for total particulates will not realistically have a direct discernible impact on local air quality. The figure in the 3rd column is the predicted environmental concentration which is the sum of the process contribution and the background concentration and is further explained here

<https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit#calculate-pec>

The figures used are for risk screening and modelling purposes usually using a process contribution derived from the maximum legal emission rate. We would not expect the plant to be operating at the limits on a routine basis.

Q6. This is an air quality objective, not a permit condition. Any monitoring for this objective will be directed by the local authority.

Total particulate matter is monitored continuously by the plant. The figure referred to is part of an impact assessment for what we call abnormal operation. This is defined in the Industrial Emissions Directive, applies only to certain operating conditions and is subject to duration limits. We are currently having to review this applicability in response to the BAT conclusions changes.

Q7. I refer to pages 62-75 in the decision document. These issues were addressed at the time of the permit variation.

Q8. The tables in section 6 of the air impact assessment are qualified in that the predicted impact is the highest determined for all receptor locations. The conclusions then relate to that, and it is justifiably assumed that the impact will be less at the other locations. Our check modelling concurred with those conclusions.