

# Former Wollongong Gasworks Remediation Project

Emission Control System & Vent – February 2021



## Background

The former Wollongong Gasworks was operated by the Wollongong Gas Company as a coal gasification plant (gasworks) between 1883 and 1977.

Jemena acquired the site following the transaction of assets from the Australian Gas Light Company (AGL) in 2007. Following the acquisition, Jemena became responsible for the site and legacy gasworks contamination.

The historical gasworks operations and waste disposal activities contributed to soil and groundwater contamination. Numerous investigations undertaken at the site between 1997 and 2019 have informed Jemena's remediation plans.

The gas manufacturing infrastructure formerly located on the site included a retort house, boiler, exhaust house, washers

and purifiers, coal storage areas, tar wells, gas holders and a drum filling area. The aboveground site infrastructure was demolished in the 1980s and a large section of the site (Lot 2412) was remediated by excavation of infrastructure and hydrocarbon impacted soil in 2005.

Since the completion of the 2005 remediation works, additional works comprising the removal of stockpiles were completed in 2018 and demolition of buildings in 2019.

To ensure the overall remediation works are completed in accordance with the applicable regulatory requirements, Jemena has engaged a Site Auditor accredited by the NSW EPA under the Contaminated Land Management Act 1997. Jemena has also engaged experienced remediation contractor, Ventia to undertake the remediation.



*Aerial image of the former Gasworks site (Dec 2020) showing the ECS structure in place (above in white) . Courtesy of Nearmap*

## Key Environmental Controls

The Environmental Control Enclosure (ECE), designed to limit the impacts of work on the local community and environment, comprises the large tent like structure – which is supported by an Emission Control System (ECS) that maintains a safe environment for personnel undertaking remediation activities inside.

The ECE is constructed of steel trusses covered in a durable, weather-proof fabric. Truck loading locks adjoin the ECE to provide access for vehicles loading. The doors are automatic and include air curtains to minimize dust, odour and emissions escaping from the structure.

To maintain sufficient air circulation within the ECE, air extracted from inside the enclosure is replaced with ventilated fresh air that is pumped into the enclosure.

The ECS filters the air that is extracted from the ECE. The air passes through a series of particulate and granular-activated carbon filters which remove contaminants from the air.

The activated carbon filters were configured with air first passing through a lead filter – followed by a lag filter. The air is continuously monitored between the lead and the lag beds to indicate when the activated carbon filters need to be changed. The detection of contaminants between the lead and lag beds indicates that the bed is becoming saturated and the lead filter is then replaced. This system ensures that there is no breakthrough of contamination. As an additional precaution, contaminate levels are also monitored in the lag beds.

All particulate filters are replaced when the in-built monitors indicate that replacement is required. This is well before the point when the efficiency of the system's operation would become restricted. Following the comprehensive filtering process the air is released back into the atmosphere via the 30m high vent.

To maintain sufficient air circulation within the ECE, air extracted from the enclosure is replaced with ventilated fresh air from outside the structure.

The ECS was tested and commissioned in December 2020, prior to commencing remediation operations in early January 2021. The system operates continuously at all times during operational hours.

Environmental Monitoring is conducted during remediation works to confirm the effectiveness of the environmental controls. Air quality, noise and vibration monitoring is undertaken regularly, at points around the boundary of the site, and closest to neighbouring properties to protect the health of the project team working in close proximity to the contaminated materials, as well as the local community.

Levels of dust, volatile organic compounds and noise are monitored at the boundaries of the site, including at locations on Smith street.

Jemena is committed to remediating the former Wollongong Gasworks and throughout this process we will continue to communicate with local residents and the community, including regular updates and information sessions about progress for these important remediation works.

## Project Timeline

Year	Details
1977	Wollongong gasworks ceased operation
1997	Site investigation for restoration of a section of the gasworks site
2005	Portion of the site remediated
2016-2019	Site Investigations undertaken
2018	Removal of stockpiles from 122 Smith Street site
2019	Demolish buildings and warehouse at the 120 Smith Street
2019	Additional Investigation works on 120 Smith Street
2020	Site Establishment for full scale Remediation works
Q2 2021	Complete Site Works and Demobilisation
Q4 2021	Remediation Complete

## Contact us

For more information about the former Wollongong Gasworks Remediation project, to ask questions, provide feedback or receive regular updates about the progress of the project please contact us via the contact details below.

## Stay up to date with the Wollongong Remediation Project:

- Register on our Project portal - <https://haveyoursay.jemena.com.au>
- Visit the project website - [www.jemena.com.au/wollongong](http://www.jemena.com.au/wollongong)
- Call us on 1800 571 972
- Email us at [wollongong@jemena.com.au](mailto:wollongong@jemena.com.au)