Background

Cleanaway’s New Chum facility is authorised to accept, recover and dispose of waste under the site Environmental Authority (EPPR00445713) (EA) under the Environmental Protection Act 1994. Two specific activities exist at the site—an operational landfill and a Resource Recovery Area (RRA).

On 16 July 2020 a minor fire was identified within the RRA by a security guard employed by Cleanaway who notified the Queensland Fire and Emergency Services (QFES) and site personnel. Site personnel attended the site within an hour of notification and proceeded to manage the fire with on-site equipment, with flames being extinguished within 10–15 minutes of arrival on site (approx. 4.20am). The fire was reported to the Department of Environment and Science (DES).

On 19 July 2020 the patrolling security guard identified a fire on Stockpile 1 of RRA2 and notified the QFES and site personnel. Through the notification and escalation chain, site management and machine operators were at the site within the hour and proceeded to manage the fire with on-site equipment. The flames were extinguished by 9pm, site personnel remained on site to manage flare ups and hot spots throughout the night. The fire was reported to DES.

The fire on 19 July 2020 burnt the top outside portion of the stockpile. It was surficial, to an approximate depth of 300mm to 500mm. The movement of the fire was generally consistent with the changing wind direction noted during the event timeframe.

Water source: water for the fire management activities was sourced onsite, there were no complications with supply or access.

Capture: water used for fire suppression was captured within the RRA, which includes an infiltration trench and bunding to ensure any water within the RRA is captured as leachate within the underlying lined landfill cell, and managed through the existing leachate management system.

On 20 July 2020 Cleanaway was issued an Environmental Protection Order (EPO) in response to fires on 16 and 19 July 2020. The EPO required Cleanaway to:
1. conduct an investigation into the source, cause and extent of the fires and to provide a written report
2. review the security arrangements of the premises and to provide a written report as to whether the arrangements are appropriate
3. engage the services of an independent appropriately qualified person/s to (by 31 August 2020) conduct an investigation into the stockpile management processes and the fire management arrangements.

On 3 August 2020 Cleanaway sent DES a report addressing requirements 1 and 2 of the EPO and stating that, in accordance with requirement 3 of the EPO, a suitably qualified person had been engaged.

Report key findings

1. Security arrangements
   - A hole had been cut in the site perimeter fence, however it was unclear when the hole was made.
   - The site has a history of unauthorised entry.
• Regular security patrols of the facility were already in place and recently increased prior to the fire.
• Further upgrades to security presence were implemented immediately following the fire on 19 July 2020.
• Increased security measures are under consideration.

2. Fire: source, cause and extent
• A number of potential causes were identified but each of these was found to be unlikely or inconclusive.
• Possible causes identified included:
  o spontaneous combustion
  o compacting the combustion source (i.e. a battery or flare was compacted)
  o magnification source (i.e. material, such as glass, refracted light and became an ignition source)
  o external influence.
• The first two causes were identified as unlikely and the last two were inconclusive.
• Weighbridge records for materials received into the RRA around 16 and 19 July 2020 comprised of Construction and Demolition (C&D), limited Commercial and Industrial (C&I), concrete and timber.

3. Suitably qualified person/s
• Cleanaway has engaged with various suppliers for an independent review in accordance with requirement 3 of the EPO, and a commitment from the chosen supplier was received to undertake the works.