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| **Non-Technical Summary** |
| **Action area** | Chillers |
| **Overview of Activities** | Chilling of water using a Daikin EUWA100MZY Free cooling chiller. |
| **Operating Techniques** | Feed water is held in a 30000L Plastic Tank.Water is recirculated through the free cooling chillers to reduce the water temperature from around 10˚C to around 5˚C. From here it flows to the reactor on demand to cool the reactor coil. This is a closed water system.A water treatment chemical is added to the feed water to reduce corrosion and prohibit bacterial growth.  |
| **Raw Materials** | Mains water is used.Water treatment chemicals are delivered in 25L drums. |
| **Waste from the process** | There is no waste from the process. |
| **Water use** | Water is provided to the site from the mains supply. Water is used as feed water and undergoes chemical treatment to prevent pipework corrosion and prohibit bacterial growth. |
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| **Point source emissions to air** | There are no point source emissions to air. |
| **Fugitive emissions to air** | None. |
| **Monitoring of emissions to air** | N/A |
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| **Point source emissions to surface water** | A closed system so no emissions to surface water are present.  |
| **Fugitive emissions to surface water** | Overflowing of the feed tank could occur so it is included in a maintenance schedule. All emission points are listed in the Emission Points document. |
| **Point source emissions to sewer** | There are no emissions to sewer. |
| **Monitoring of emissions to water** | Not required. |
| **Emissions to land** | No emissions to land from the installation. |
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| **Odour** | This is a closed system. There is no discernible odour. |
| **Noise & Vibration** | No noise complaints have been received. |
| **Energy** | The primary sources of energy used at the installation are electricity imported from the National Grid.Half hourly meters are installed on the site across the site to record electricity usage.  |
| **Environmental Management system** | The installation operates under an environmental management third party certification scheme to ISO14001:2015. The process is supported with a management consultant who carries out compliance audits.  |
| **Environmental Risk Assessment** | An Environmental Risk Assessment has been undertaken as part of the installation permit. |
| **Incident Management** | Written procedures are in place to manage the identified risks, including procedures relating to spill response, emergency preparedness and response to major emergencies. The Site has a Major Incident Plan and a Fire Prevention Plan which outlines the processes to follow to ensure adequate systems, resources and training are in place to effectively prevent and minimise the impact of an incident. |