

South west England river basin district: climate change risk assessment worksheet

Name (as on your part A application form): Powerfuel Portland Limited

Our permit reference number (if you have one): EPR/AP3304SZ/A001

Your document reference number: Adapting_to_climate_change_risk_assessment_worksheet_SW_england

Risk assessment worksheet for the 2050s

South west England river basin district

You must carry out a climate change risk assessment for any new bespoke waste and installations permit applications if you expect to operate for more than 5 years. Use the [user guide](#) to complete the table. You can add in extra pages if necessary.

Consider how your operations will be affected by the changes in weather and climate described in the table. Consider any changes to average climate conditions that may impact on your operations, for example extreme rainfall.

Also consider:

- critical thresholds - where a 'tipping point' is reached, for example a specific temperature where site processes cannot operate safely
- changes to averages - for example an entire summer of higher than expected rainfall causing waterlogging
- where hazards may combine to cause more impacts

You can add in other climate variables if you wish.

If you have stated on your application form that you do not expect to be operational in 2050, you must still consider climate change risks for the time you do intend to operate. Whilst the variables are for the 2050s, this is an estimated date and you may experience these conditions before then.

This worksheet will sit in your management system. It must appear on the management system summary you submit with your application, even if you do not need to submit the whole risk assessment with your application.

If your pre-mitigation risk score (column D) is 5 or higher, you must complete columns E to H.

| Potential changing climate variable | A Impact | B Likelihood | C Severity | D Risk (B x C) | E Mitigation (what will you do to mitigate this risk) | F Likelihood (after mitigation) | G Severity (after mitigation) | H Residual risk (F x G) |
|---|---|-----------------|---------------|----------------------|---|---------------------------------------|-------------------------------------|-------------------------------|
| 1. Summer daily maximum temperature may be around 7°C higher compared to average summer temperatures now. | The Facility will be slightly less efficient due to warmer temperatures | 2 | 1 | 2 | No mitigation required. The Facility will be designed to operate within a range of climatic conditions. | 2 | 1 | 2 |

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|--|--|---|---------------|----------------------|--|---------------------------------------|-------------------------------------|-------------------------------|
| 2. Winter daily maximum temperature could be 4°C more than the current average, with the potential for more extreme temperatures, both warmer and colder than present. | No negative impact expected. The ACC's will be designed to operate in a range of climatic temperatures allowing for increases and reductions in the long-term average annual temperatures. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 3. The biggest rainfall events are up to 20% more intense than current extremes (peak rainfall intensity)*. | Localised flooding within the installation boundary | 1 The site itself is located within Flood Zone 1. | 3 | 3 | The site will have two separate surface water outfalls – one within Portland Harbour and another within Balaclava Bay. A surface water management plan has been developed for the site and accounts for runoff in up to the 100 year return period, whilst also safeguarding against upper end allowances for climate change (40%). A new SUDS swale will also be constructed. | 1 | 2 | 2 |
| 4. Average winter rainfall may increase by 41% on today's averages. | Localised flooding within the installation boundary | 1 The site is located within flood zone 1. This indicates a low probability of surface water flooding. | 3 | 3 | The site will have two separate surface water outfalls – one within Portland Harbour and another within Balaclava Bay. A surface water management plan has been developed for the site and accounts for runoff in up to the 100 year return period, whilst also safeguarding against upper end allowances for climate change (40%). A new SUDS swale will also be constructed. | 1 | 2 | 2 |

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|---|---|---|---------------|----------------------|--|---------------------------------------|-------------------------------------|-------------------------------|
| 5. Sea level could be as much as 0.6m higher compared to today's level *. | Localised flooding within the installation boundary | 1 The site is currently located within flood zone 1, and the flood risk assessment undertaken for the site determined that coastal flooding will not pose a significant risk to the development. | 3 | 6 | To protect the site against any wave overtopping, site levels are anticipated to slope away from the built development, allowing any overtopping to fall back towards the sea. | 1 | 2 | 2 |
| 6. Drier summers, potentially up to 45% less rain than now. | No negative impact expected | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 7. At its peak, the flow in watercourses could be 40% more than now, and at its lowest it could be 80% less than now. | The Facility is not located in close proximity to any surface watercourses. | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

*Indicates data has come from climate change allowances as part of the spatial planning process. Evidence from your planning submission is acceptable evidence for this worksheet.