Environmental Risk Assessment

| Consideration | | Receptors | Discussion | Detailed Environmental Risk Assessment? | **Additional Mitigation Required** |
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| Fugitive Emissions | Litter | Human health receptors:  There are residential areas ~310 m north west, ~450 m north west, ~750 m south east, ~530 m south west, ~410 m south east, ~880 m south east and ~910 m north east.  The nearest is school is approximately 930 m north west.  Designations:  There are protected species, Brown Trout and Bullhead in the River Colne to the east of the site. There is a local wildlife site, the Sir John Ramsden Canal to the west of the site. The Dalton Bank LNR, is ~50 m to the east of the site. The Denby Grange Colliery Ponds SAC is situated ~10 km south east of the site. There is a deciduous woodland to the east of the site, across the River Colne.  There are no SSSI or NNR within 2 km of Deighton WWTW. There are no Ramsar, SPA or MPZ within 10 km of the site. | The facility does not produce waste which results in litter | No | N/A |
| Vermin and Pests | For human health receptors, see notes for Litter above. | The waste produced does not typically attract pests and vermin and is well contained | No | N/A |
| Dust | For human health receptors, see notes for Litter above. | The facility handles wet wastes which do not result in dusts | No | N/A |
| Point source emissions to air  Emissions deposited from air to land | | For human health receptors, see notes for Litter above. | There are no point source emissions to air from these activities | No | N/A |
| Point source and fugitive emissions to water | | The south eastern, eastern and northern sides of the site are straddled by the River Colne (<10 m to the south and east of the site at its closest). The west side of the site is straddled by the Huddersfield Broad Canal (~16 m to the west of the site at its closest), with the canal and river coming within 65m of each other to bottleneck the site to the North. ~240 m to the south west is an unnamed pool.  The wider site drainage is returned to the head of the site for treatment.  The permitted area of the site sits within Flood Zone 3. It benefits from flood defences.,. | There are no point source or fugitive emissions to water associated with the permitted activities.  Drainage within the works is directed to the ‘head of the works’  Discharges of treated effluent from the WwTW are not covered under the Waste Framework Directive and are not included in the works associated with this permit application.  There is a risk to processes on site in the event that inappropriate effluent streams are introduced to the works causing inhibition of treatment processes. | No | Waste pre-acceptance and acceptance checks for all incoming wastes to minimise the risk of unacceptable loads being delivered, impacting on the treatment processes on site |
| Odour | | Onsite workers and contractors.  For human health and ecological receptors, see notes for Litter above. | There is the potential for odorous effluent to be accepted at the site via tanker, controls are summarised in the site odour management plan. | Yes | Mitigations are summarised in the odour risk assessment (Table 5-5) |
| Noise and Vibration | | Onsite workers and contractors.  For human health and ecological receptors, see notes for Litter above. | The primary source of noise at the site is vehicular. All plant has been chosen to be low noise and white noise squawkers have been used in preference to beepers.  There is no history of noise related complaints at the site. | No | Wider works covered by odour management plan |
| Accidents | | Onsite workers and contractors.  For human health and ecological receptors, see notes for Litter above.  The bedrock and superficial aquifers are Secondary A. | There is potential for release of unauthorised waste or wastes of unknown composition into the treatment system, which could potentially lead to the treatment system not working correctly or requiring maintenance, as well as implications for sludge produced. | No | N/A |
| Waste Compatibility | | UWWTD derived flow within the works, the biological, chemical and physical processes within the WwTW and output quality (sludges and final effluent) | Yorkshire Water has a robust waste pre-acceptance and acceptance procedure, which is linked to both site access for tankers and also offloading point operation by means of key fob-controlled loggers.  All potential tankered effluents are subject to an assessment before permission to deposit is granted, with more detailed assessments being carried out on more complex or variable effluents.  Incoming loads are subject to monitoring, including periodic random sampling and testing to check for compliance.  All offloading points are equipped with appropriate hoses and coupling to reduce the risk of misconnections and spillages. | Waste compatibility | Waste pre-acceptance and acceptance checks for all incoming wastes to minimise the risk of unacceptable loads being delivered, impacting on the treatment processes on site |
| Protected Species | | There are no designated habitat sites within the screening distance. There are protected species within the River Colne. | There are no direct discharges to the River Colne or Sir John Ramsden Canal from the permitted activity. All imported wastes are treated within the WwTW in accordance with its discharge permit. | No | The site has emergency plans and protocols within its EMS to reduce and minimise risk. |
| Flooding | | The far north and far west sides of the site lie within Flood Zone 2 with a medium probability of flooding from rivers (1:100 – 1:1000 annual probability of flooding). The rest of the site lies within Flood Zone 3 with a high probability of flooding from rivers (>1:100 annual probability of flooding). | The site has registered for flood warnings and in the event of a major flood being forecast, tankered trade imports deliveries to the inlet will be diverted to alternative YW sites. | No | No |
| Bioaerosols | | Humans | In line with document reference ‘Deighton WwTW Tankered Waste Imports – Bioaerosol Risk Assessment’ there are no bioaerosols released from the acceptance of waste. For the reception and offloading of waste there is no release point, offloading through sealed pipe and connector.  Only liquid wastes accepted with limited potential to generate bioaerosols. For the discharge of effluent to WwTW, there is no release point - discharge into wastewater inlet is below liquid level. Only liquid wastes accepted with limited potential to generate bioaerosols. | No | All pipes and connectors checked for integrity any damaged equipment removed from service and replaced.  Waste pre-acceptance procedure.  Waste acceptance procedure. |