Review of Fire Prevention Plan

Permit Reference: EPR/EB3708UG/P001 (EAWML 23658)
Operator: SUEZ UK ENVIRONMENT LTD
Facility: Mannings Heath Transfer Station
Activities: Bespoke HCI Transfer and Treatment of Non-Haz Waste

Purpose of FPP Review: Pre-Application
Date of Review: 01/08/2024
Officer Conducting Review: Victoria Nicholls

Documents included in the review:

Suez - Mannings Heath Transfer Station - Fire Prevention Plan Version 1.0 March 2024 (FPP to support permit variation).

Findings of Fire Prevention Plan Review

Overall, the Fire Prevention Plan ('FPP') that you have submitted is of a very high standard and is well laid out and formatted. We have found that there are a few areas that do not provide enough detail that would prevent us from approving it as it stands. The main issues found are relating to the Site Plans and the information provided on waste storage, prevention of fire spread and fire water containment.

The detailed findings of the review are listed below.

Site Layout Plan(s)

1. Revised Site Layout Plan(s) in your FPP is required. The current plan(s) are currently missing:

    - Permitted site boundary
    - Internal layout of buildings – locations of waste storage, separation distances and dimensions, locations of waste treatment areas and treatment equipment, location of hazardous and flammable materials being stored (e.g. gas cylinders, chemicals, oils
      (Internal layout of the building can be provided as a separate plan if easier)
    - External storage areas with waste piles, waste bays and fire walls (where applicable), wastes stored in containers – include indicative pile layouts and ensure it is geographically representative
    - External areas where any hazardous and flammable materials are stored on site (gas cylinders, chemicals, oil and fuel tanks)

- Separation distances and fire walls
- Main access routes for fire engines and any alternative access and access points around the site perimeter to assist fire fighting
- Surfacing (i.e. areas of impermeable surface 'concrete', permeable hardstanding, natural and unmade ground)
- Location and dimensions of quarantine area(s)
- Location of fixed plant or where you store mobile plant when not in use
- Location of spill kits, fire extinguishers and hose reels

The current FPP Site Layout Plans submitted need to be improved to ensure they include all the required features. Particularly, it would be useful if the plan showed clearly where the types of wastes will be stored, locations and the size of waste piles and the separation distances and fire walls between piles.

The permit boundary shown on several of the plans (with the exception of Figure 4) show a much larger boundary than the permitted boundary that is in the current standard rules permit. I understand the boundary may be the whole site boundary. However, layout plans, in particular, should clearly mark where the permitted boundary is.

No internal layout of the building has been provided.

No quarantine area or designated smoking area appears to be marked on any of the plans.

The FPP states that Hydraulic fluids and oils required for mobile plant are stored inside the oil store as indicated on the site layout drawing Figure 3. However, it is not clear where this is.

Site plans should be drawn to a defined scale and have a compass showing north.

Please refer to Section 6.2 of the FPP guidance for further information of all that needs to be included. Fire Prevention Plans: environmental permits - GOV.UK (www.gov.uk).

2. Revised Site plan (or separate Drainage plan) is required to show:
- Drain gullies
- Pollution control features such as drain closure valves
- Fire water containment systems such as bunded or kerbed areas

3. It appears from our mapping systems that there is a surface watercourse or drain (Dorset Stour catchment) approximately 435 metres to the southeast downstream from the site. This watercourse should be included as one of the sensitive receptors and should be considered, especially if there are any surface water drains on the site

and if there is any chance that contaminated firewater run-off could enter the surface-water system.

FPP Content

We would advise that the FPP is revised to address the following:

4. Provide details of where mobile plant that isn't being used will be kept, to demonstrate that they will be stored away from combustible waste.

   Location of mobile plant when not in use is not clear on any of the site layout plan.

5. Provide the location of the designated smoking area.

   The FPP states that smoking on site is only permitted in designated smoking area as shown on Figure 3. However, Figure 3 does not appear to show any designated smoking areas.

6. Revise site plan to show where you will store combustible waste piles, waste bays and containers, both externally and internally.

   The location on wastes on site externally and internally is not clear in the FPP.

   The FPP guidance advises that there will be separation distances of 6m or suitable fire walls in place between waste piles and the site perimeter, any buildings, or other combustible or flammable materials. The plan should demonstrate that this is the case or suggest alternative measures to prevent fire spreading if this is not the case.

7. Revise site plan to show the location, dimensions and heights of any fire walls and bay walls acting as fire walls.

   The FPP does not clarify where these fire walls are used, and what waste piles are managed through the use of them.

8. For any fire walls or bays on site, you need to provide further details to show that the fire walls (or bay walls) are designed to resist fire (both radiative heat and flaming) and have a fire resistance period of at least 120 minutes to allow waste to be isolated.

   You need to demonstrate Fire walls are compliant with Section 11.2 of the FPP guidance.

9. Provide details of the location and dimensions of the quarantine area(s) on site.

Quarantine area described in the FPP does not appear to be shown on the site layout plan. Details of the size and capacity of the quarantine area has not been provided.

The quarantine area(s) must be within the boundary of the site for which the permit applies and be large enough to hold at least 50% of the volume of the largest pile.

10. Lithium batteries are commonly disposed of incorrectly and are found in a variety of different waste streams. You should consider if the measures stated to reduce the fire risk caused by reactions of wastes and batteries in wastes is sufficient.

When receiving waste it is critical that you identify wastes containing contaminants that could lead to ignition. You should have a written procedure for identifying, isolating, monitoring, for things such as signs of heating, steam or smoke; batteries, in particular lithium-ion batteries; oils or other contaminants; rags soaked in oils or chemicals.

11. In your FPP you have stated that for security reasons the exact location of the CCTV cameras and thermal imaging cameras will not be provided. This is understandable, but you need to confirm in the FPP that the system can monitor all significant combustible waste piles onsite.

12. Provide further details of how firewater will be contained (based on worst case scenario) and what measures will prevent environmental pollution.

We need to ensure water run-off management is sufficient and will prevent contamination of controlled waters from firewater on site. Please refer to Section 17 of the FPP guidance on Gov.uk. You need to show how in the event of a fire you will contain the volumes of fire water that are in accordance with the worst-case scenario water supply calculations. Include details of secondary and tertiary containment facilities for fire water run-off if applicable. For example, if fire water will be retained by impermeable surfacing or by using a concrete kerbing, you will need to consider the height of the kerbs in your fire water containment calculations and how will water be contained where there are gaps in the kerbing?

In section 4.5.7 of the FPP you have stated that you will use clay drain mats/ covers and booms. Details have not been provided of which drains can be covered and how it will be done, where the drain mats and booms will be stored. Consider how many personnel are needed and how quickly they can be put into place. Describe what alternative measures will be used if it is not safe to do so.

It would be beneficial to update your site drainage plan to visually demonstrate how generated firewater cannot escape the site boundary.