Schedule

Recovery and disposal codes

You have requested D15 (Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection on the site where it is produced)) be included in the permit.

If waste is being accepted with the *intention* to dispose of it, then the D15 code should be used, however if waste is being accepted for recovery, and some waste may need to be *incidentally* disposed of, then the D15 is not required.

Additionally, the annual compliance charge (Subsistence fee) with D15 is £5,886 (T2E/c/4), and without is £3,682 (T1A/b/4).

1. **Action: confirm if you wish for the D15 to remain in the permit.**

Material will not be sourced with the intention to dispose of it. Waste may be included in a delivery which we cannot recover and so have to dispose of.

Please remove D15 from the permit.

You have not requested that **R4 (**Recycling/ reclamation of metals and metal compounds) is included in the permit, however as metal is to be accepted via mixed wastes (coded as 15 01 06, 19 12 12 and 20 03 01) R4 should be included in the permit.

2. **Action: Confirm that you give approval for R4 to be included in the permit.**

Metal will not undergo any processing on site that will involve melting, however I am happy for R4 to be included on the permit.

Fire prevention and mitigation plan (26 - Fire Prevention and Mitigation Plan (V2))

Overarching Action: Provide a revised fire prevention and mitigation plan (FPMP) produced in accordance with the guidance - "Fire prevention & Mitigation Plan Guidance – Waste Management". You must ensure that ALL sections of your FPMP meet the standards as set out in the guidance; failure to do so may result in your application being refused. The specific sections that your FPMP is deficient in is set out below; for ease of reference, we have set out the below following the sections of our FPMP guidance. Wording in *italics* is taken directly from our FPMP guidance.

Section 5 - Site Plan

Our guidance states *you must include a site plan(s) drawn to scale showing:*

- *areas where hazardous materials are stored (location of gas cylinders, process areas, chemicals, piles of combustible materials, oil & fuel tanks)*
  The Gas bottles and other flammable items section of Table FPMP3 of your FPMP states these are stored in the "workshop area which is detailed on Internal Plant Layout (Proposed) (SWA-DWG-EP-07 (part 2 of 2)" however this plan does not show which area is deemed as the workshop area. This needs to be clarified.
- *the location of plant, protective clothing and pollution control equipment and materials*
  This is not shown on any site plans

3. **Action: update the relevant site plans to show this information**

SWA-DWG-EP-07 (part 2 of 2) – Updated to show location of Workshop.

SWA-DWG-EP-04 – Updated to include PPE & Spill Control supplies location ☑
Location of Plant is still shown within the Buildings as previously detailed on SWA-DWG-EP-07 (part 2 of 2) – once plant is installed and the exact positioning is known these diagrams will be updated and supplied to NRW.

Cyfoeth Naturiol Cymru
Natural Resources Wales

Section 8 - Managing Waste Material Stacks and Separation Distances

Figure 2 of our FPMP guidance shows the stack lengths and separation distances for plastics and rubber wastes.

Section 4.5.1 of your FPMP gives your separation distances, and plan 8 - SWA-DWG-EP-05 - Waste Storage Plan REV B also shows some separation distances.

These are shown below:

Area and type	**Pile length or width**	**Figure 2 distance (guidance)**	**Section 4.5.1 distance**	**plan 8 - SWA-DWG-EP-05 - Waste Storage Plan REV B distance**
Main yard Baled stack to baled stack	20m	27m brown line	at least 27m	25m/26m
Main yard Baled stack to baled stack	10m	19m brown line	at least 15m	16m/17m
Main yard Baled stack to building	20m	24m purple line	30m	No distance given on plan
Main yard Baled stack to building	10m	17.5m purple line	15m	No distance given on plan
Side Yard Baled stack to building	10m	17.5m purple line	30m.	No distance given on plan

All separation distances must conform to the guidance and must be consistent in the text of your FPMP and on your site plans.

4. **Action: update the separation distances in your FPMP and relevant site plans to be in line with our guidance.**
   SWP-DWG-EP-05, and FPMP updated with corrected separation distances

Section 10 - Baled waste storage

Section 4.3.8 of your FPMP states “Bales of waste or bagged waste will be stacked in a straight and uniform manner”. This contradicts our guidance which states “*Baled wastes when stored may pose a specific fire risk issue associated with the configuration of storage. Bales of waste are typically stacked directly on top of each other. This can result in continuous vertical air gaps between bales – in effect creating ‘chimneys’ between individual ‘towers’ of bales. If a fire occurs, these chimneys can result in energetic air-flows between bales so promoting a more rapid and energetic burn. Interlacing bales can help to break-up these chimneys – arranging bales in the same way as bricks in a wall rather than directly on top of each other. You should consider this for baled plastics/rubber where burn*

temperatures are higher, interlacing bales may reduce burn temperature and how energetically a fire may burn."

5. **Action: either amend how baled waste is stacked or provide justification why baled waste stored in a straight and uniformed manner will not cause an increased fire risk.**

Material received onto site for processing will not be stored for long lengths of time – the material will be processed through the plant shortly after it's arrival and any contamination removed from the bales.
Clean, sorted, plastic does not have the same risk of self combustion as unsorted material. By removing the contamination you remove the organic matter within the bale of which it's decomposition is the highest risk for self-combustion.
The material that will be stored on site for longer periods will be the sorted plastic that has either been through the sortation process (So contamination removed) or by-products from the washing / extrusion process which will have gone through additional washing processes..
Any organic out throws from the processing plants will not be stored on site long term as there is no recycling output for this material and this material will need to go for energy recovery.
Due to the above, we feel that the sorted, stored, material does not have a significant fire risk and therefore can be stacked straight and uniformed.

Section 11 - Enclosing stacks using bays and walls

Section 4.5.3 states that "The walls will be A1 rated concrete1 and will have a fire resistance period of at least 120 minutes to allow the waste to be isolated."

Our guidance states "*Product specification will need to be established via approved stockists to ensure appropriate standard of fire resistance are met. It is essential that when installing such products that the installation method used is in line with the manufacturers recommended installation requirements."*

Neither the product specification, nor the confirmation they will be installed in line with the manufacturers recommended installation requirements are given.

6. **Action: Provide the product specification, and the confirmation they will be installed in line with the manufacturers recommended installation requirements.**

The concrete walls installed will have an "A1" rating under BS EN 13501-1: 2018 and I can confirm that these will be installed in line with the manufacturers recommended installation requirements. We have not purchased the concrete blocks yet but are anticipating these will be the Legato Interlocking Concrete Blocks as per the attached specification.

Section 13 - Waste Stored in containers

This section of our guidance applies to waste stored in containers that can hold more than 1,100 litres, examples of these types of containers include skips, roll-on roll-off skips, or shipping containers.

Section 3.2.5 of your FPMP states "Only residual waste and general waste created by the site processes will be stored in a skip container, but its size, and separation distances are not given.
Section 4.3.13 of your FPMP provides states: "There is only one roro container on site for the production outthrow material. Any production outthrow material is transfer from the bunker to the roro, which is stored in the external storage area. The roro is emptied when full."
Site plan 8 - SWA-DWG-EP-05 - Waste Storage Plan REV B shows one RORO skip inside yard area.

Are all three references referring to the same skip?
Additional information is required on the movability of the skip in case of fire

7. **Action: provide clarification and update where relevant including movability, location, size and separations distances.**

There will be two ROR skips on site, and these have been updated on SWA-DWG-EP-05. The two ROR skips are each 30 cubic yards and based in the two left hand side storage yards. Each ROR will be based within a storage bay with concrete walls around three sides.
The skips cannot be moved by machinery held on site and would need specialist equipment, however it is felt that the fire walls surrounding the skips would stop fire spreading.
The FPMP has been updated under 4.3.13, and updated diagram SWA-DWG-EP-05 has been attached.

Section 16 - Monitoring and turning of stacks

Our guidance states that "You should explain what indicators you will use in relation to temperature and moisture content and the escalation of actions in relation to these indicators." The indicators and escalation of actions have not been given

8. **Action: provide information on what indicators you will use, and the escalation of actions.**

Section 4.4.5-4.4.7 of FPMP updated to show escalation procedures as well as additional inspection of waste stacks.

Cyfoeth Naturiol Cymru
Natural Resources Wales

Our FPMP guidance states "*Your staff must be trained to detect and manage hotspots*." Your FPMP states in section 4.6.2 that "In the event of a hotspot being identified, waste in the affected bay(s) will be safely transferred and spread across the quarantine area" but provides no information on how hotspots are detected or how staff are trained to identify them.

9. **Action: provide information on how hotspots are detected and how staff are trained on them.**

Section 4.4.5-4.4.7 of FPMP updated to show escalation procedures as well as additional inspection of waste stacks.

Section 20 - Water supplies

Based on the largest pile on site you are required to have (or have access to) a minimum of 960,000 litres of water to fight a fire.

You have stated in section 4.11.4 of your FPMP that this requirement is met by the following. Please also see our queries:

- Fire water tank = 774,000 litres
  a) No information has been provided on how the water tank and water level will be maintained.
     - – Water tank has an auto top fill ball valve (Inlet float valve), checked and maintained by ourselves, and Vipond. Tank will be kept full
  b) Section 4.11.1 states the 774m3 tank is for the fixed fire sprinkler system i.e. for internal use. Given that this would need to be used on the waste stored outside, you must provide information on how this can occur.
     For fire brigade to access and pump as needed
  c) The FRS has also asked for confirmation that the provision of water supply for the sprinkler system complies with BS EN 12845:2015+A1:2019 (Section 4.11.1)
     - Can confirm
  d) The FRS has also asked for confirmation on the type of connection point as detailed in Section 4.11.1
     - Integral stores pump connection. 250 psi central or modern hydrant.
  e) The FRS has also asked for confirmation if the fire water tank supply is used for other firefighting systems (see BS EN 12845:2015+A1:2019 - 9.6.4. – Combined water supplies)
     - Used for the sprinkler system and external hydrants on site are
- Cannon water tank = 30,000 litres
  f) No information has been provided on how the water tank and water level will be maintained.
     - Cannons have pump from the water tank, and the water levels are maintained via auto filling auto top fill ball valve. Inlet float valve

- 7 fire hydrants across the site (these fire hydrants are serviced and maintained on an annual contract as governed by British Standards and Building Regulations, in particular BS9990:2015)
  g) No information has been provided on how much water the on-site hydrants can supply.
     - From 774 m cubed tank, Pressurised via tanks.
  h) Need to consider that if all hydrants are part of the same system, then once one is used, the other may not be able to supply water.
- 4 fire hydrants off site - hydrant should provide a minimum of 8 l/sec (480 l/min)
  i) Information provide on how much water the hydrants should supply. No information given on how this information was obtained nor for how long this water can be provided for.
     - Welsh Water are booked to do an inspection on 4th March of the hydrants located off site to provide this information.
  j) Need to consider that if all hydrants are part of the same system, then once one is used, the other may not be able to supply water.
     - Welsh Water are booked to do an inspection on 4th March of the hydrants located off site to provide this information.

At present it has not been demonstrated that the site has sufficient water supplies available to your site for firefighting to take place and to manage a worst-case scenario incident.

10. **Action: provide the requested information above on each of the 4 water supplies and demonstrate that the site has enough fire water available in a worst-case scenario.**

Based on the details above the total volume of water available would be:
774 m^3 – Fire water tank
30 m^3– Cannon Water Tank
156 m^3 – Off site Fire Hydrants (Equivalent to 14.4 litres / second). With each external fire hydrant expected to provide 8 l/s this would be covered by 2 hydrants.
*This information on the off site fire hydrants will be checked by Welsh Water on their visit on the 4th March. The FPMP will be updated should this information provided by Welsh Water contradict this. Waste stacks requiring 960 m^3 will not be stored on site until it can be confirmed that this volume will be supplied.

I haven't updated the figures on the FPMP at this stage regarding the external fire hydrants, this will be done promptly as soon as Welsh Water have carried out their visit. I will forward to NRW .

<u>Section 24 - Reviewing and Monitoring your Fire Prevention & Mitigation Plan</u>
The FPMP guidance states that "*The methods and procedures you use to maintain compliance should be listed as a separate section within your Fire Prevention and Mitigation Plan*."

This information has not been provided.

11. **Action: prove information on the methods and procedures you use to maintain compliance with your FPMP**

Section 5.2 added to FPMP to include maintaining compliance. The environmental monitoring sheet is completed daily by the TCM and covers most of the compliance with the FPMP including:

Daily inspection of stacks / yard / site

Daily check of CCTV

Service dates of water supplies, and next due date

Service dates / checks of Interceptor and next due date

Weekly checks of sprinkler system