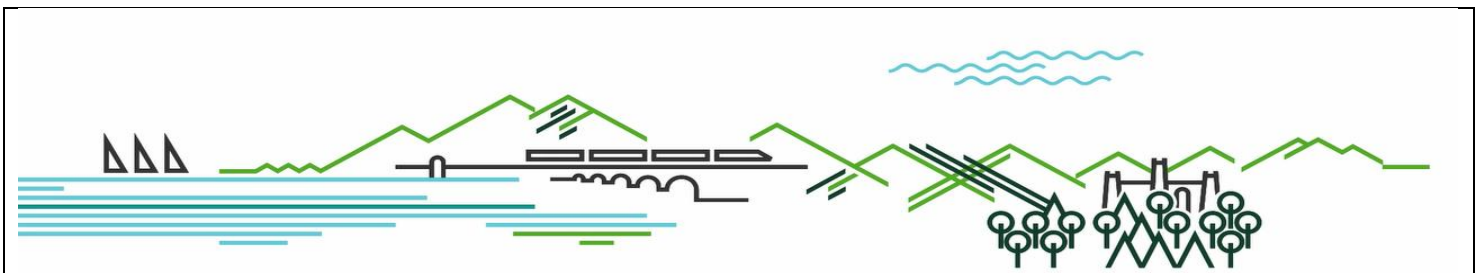


Atlantic Recycling Ltd

Audit May 2018

Atlantic Eco Park, Newton Road, Rumney, Cardiff, CF3 2EJ
Permit: *EPR-PP3993VS*

Officer: *Alex Bowder*
Date: *11th June 2018*



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Regulatory Officer Alex BOWDER and Senior Regulatory Officer Adam WARD attended Atlantic Recycling Ltd (ARL) at Atlantic Eco Park, Newton Road, Rumney, Cardiff on Wednesday 2nd May 2018 at 10:30am to carry out an introductory inspection of the permit **EPR-PP3993VS** for an initial site visit.

A further inspection was carried out by the Officers on 17th May 2018 for post Audit discussions to assess the stockpile dimensions and separation distances of the loose shredded plastic material stored, along with the business' waste classification process.

The primary purpose of the visit was to introduce the business to the new Regulating Officer Alex Bowder and conduct a walk around inspection of the permitted area. A desk-based assessment of the business' submitted Fire Prevention and Mitigation Plan (FPMP) was conducted to see whether the document reflects NRW's FPMP Guidance (August 2017), before determining and whether procedures were being implemented on site.

The weather was mild and dry at the time of inspection on 2nd May, but there had been heavy rainfall the evening before. Officers met with Business Development Director Mr. Phil Ridley and site Technically Competent Manager (TCM) Mr. John Edwards who accompanied us around the various fields and permitted areas used to store and treat waste.

Thank you to the business for explaining the business processes.

To remind the company following each visit Natural Resources Wales will produce a Compliance Assessment Report (CAR) detailing our comments from the inspection. If we substantiate reasonably foreseeable risks or actual impact to the environment, we can breach the business against your permit conditions which can affect your site banding and annual subsistence fees; this is scored on a Category 1 - 4 basis:

- 1** - Major, serious persistent and/or extensive impact on the environment/people/property
- 2** – Significant impact on effect on the environment/people/property
- 3** – Minor impact or effect on the environment/people/property
- 4** – A non-compliance which has no potential environmental effect

AUDIT PURPOSE

In 2017 the permit condition **3.7** regarding Fire was included in the drafting of the licence **EPR-PP3993VS**. Condition 3.7.1 requires the operator to manage and operate the activities in accordance with a written fire prevention plan using the current, relevant fire prevention plan guidance.

The purpose of this part Audit is to assess ARL's submitted Fire Prevention and Mitigation Plan (FPMP) and Fire Risk Assessment (FRA) to see whether the document correctly reflects the Fire Service's issued Prevention Guidance and whether procedures are being implemented in practise across the yard. This is to ensure that there is compliance with permit condition 3.7.1 and previous CAR form actions have been completed.

We wish to focus on three main objectives for the purposes of this part Audit:

1. Highlight previous compliance issues and the relevant improvements/actions completed.
2. To determine whether ARL's FPMP is in line with NRW guidance and to confirm whether the written procedures are being followed on site.
3. To develop an action plan to ensure compliance is achieved long term.

AUDIT ACTIONS

Compliance tasks to be completed by the business will be stated at the end of each section **highlighted in red** with their deadline dates. The Audit Summary (Page 20) will list all the action tasks from the report - please see that these are actioned.

PERMIT INFORMATION

Permit number: EPR-PP3993VS

For the purposes of this introductory inspection to the new Office Alex Bowder, a general overview of the permit has been conducted. The original Environmental Permit for the Newton Road site, EAWML **30347** was issued on the 14 October 2005 to Neal Soils Suppliers Limited and subsequently transferred to ARL on the 29 November 2010. The Environmental Permit has undergone four variations following its transfer to ARL.

The site is surrounded by a series of drainage ditches/reens and lies within the footprint of a Site of Special Scientific Interest (SSSI). The facility is owned and operated by ARL and is currently permitted for the following activities under **EPR-PP3993VS**: -

- Soil Processing Facility;
- Waste Transfer Station with Treatment;
- Wood Processing Facility;
- Refuse Derived Fuel (RDF) and Solid Recovered Fuel (SRF) Processing Facility

All activities are to take place on impermeable surface with sealed drainage. There is a point source emission to surface water within the permit and burning of waste is an unlicensed activity.

In 2013 the permit was varied to allow external storage of RDF / SRF and SRF production.

- The permit was part surrendered removing the in-vessel composting facility
- The permit requires reporting of monitoring data regarding surface water emissions to the reens - quarterly, monthly and bi-annually

The tonnage allowances for the various work areas are as follows:

- Waste transfer station with treatment – hazardous and non-hazardous wastes – 130,000 tonnes throughput
- Soil Processing Facility – non-hazardous - 30,000 tonnes
- Wood Processing Facility – 20,000 tonnes
- Refuse Derived Fuel (RDF) and Solid Recovered Fuel (SRF) Facility – 40,000 tonnes – waste stored (prior to treatment) and treated within a building

ARL intend to increase in the permitted waste throughput allowance to 280,000 tonnes to be in line with the maximum limits previously accepted for the site before the surrender of the in-vessel composting.

Permit Variation

ARL has submitted an application to NRW to vary their environmental permit. The business intends to modify their existing permit in relation to condition 1.3.1 to allow:

- Treatment of the surface water on site;
- Inclusion of a new RDF/SRF processing facility - separate to the current WTS activity on site;
- increase in tonnages to RDF/SRF throughput from 40,000 to 100,000 tonnes per annum to make up for the surrendered in-vessel composting activity permitted to accept 60,000 tonnes per annum. The increase in the tonnage of waste for RDF/SRF processing is claimed to be consistent with the overall tonnage previously allowed at the site
- Removal of “other specifications” from Table S3.2 and S3.3.

This application is currently being held by the permitting department and is awaiting determination.

PAST CAR FORMS

06/03/17 – Waste Return Data Review

This report highlighted that the waste return document submitted for 2016 contained the European Waste Catalogue (EWC) code of **20 01 36**. This waste is classified as discarded electrical and electronic equipment and is not a permitted waste stream under the permit.

Please ensure all material is being coded correctly and the site is only accepting permitted wastes.

06/09/17 - Site inspection

This inspection was conducted by Damien Downes who was accompanied by Rob Salter from the Fire and Rescue Service. The purpose of this inspection was to analyse the aerial survey of the transfer station and Field 1 to assess the waste storage and fire risk on site.

There were four main compliance issues highlighted in the report:

- i) Insufficient Fire Prevention Plan

The separation distance between stacks was deemed insufficient to reliably prevent the fire spread between stockpiles. It was stated that the Atlantic Fire Prevention Plan available at the time of inspection (Issue 1D March 2017 by RPS) did not cover the required mitigation measures.

- ii) Insufficient Environment Management System (EMS)

Root causes for storage procedures were breached here.

- iii) Excessive waste volumes

The total volume of stored material on site exceeded ARL's maximum storage capacity by 6,859 m3. The individual stockpiles also exceeded the total maximum volume of 450 cubic metre. The 2016 FPMP guidance document stated that the maximum storage volume for a singular waste pile should not exceed 450 cubic metres. This was superseded by the FPMP document published in August 2017 which removed this specification.

Materials had also been stored on site for longer than then six months limit.

- iv) Statutory Notice deadlines

It was established that the Regulation 37 Suspension Notice attributed to Field 1 was not complied with.

ACTION from CAR Form

To update the Fire Prevention Plan to reflect most current, relevant Fire Prevention Plan guidance and implement measures across the site ensuring waste stack sizes and separation distances are appropriate to reduce risk of fire. This was set to be completed by 28 February 2018.

14/02/18 - Site inspection

A site inspection was carried out on 14th February 2018 conducted by Officers Eleanor Davies and Alex Bowder. The aim of this site visit was to assess compliance with the Regulation 37 Suspension Notice issued on 17 December 2015 served under Regulation 37(1) EPR 2016.

There was no waste present on Field 1 at the time of inspection and so on 27 February 2018 Natural Resources Wales chose to withdraw the Suspension Notice.

FIRE PREVENTION AND MITIGATION PLAN

On 28 February 2018, Mr. Phil Ridley Business Development Director sent through the business' drafted FPMP (issued by RPS Group) and so have addressed the submittal action of the previous CAR Form. On 22 March 2018, Mr. John Edwards the site's Technically Competent Manger (TCM) sent through the Fire Risk Assessment and a further copy of the Fire Plan.

In 2017 the permit condition **3.7** was included in the drafting of the licence **EPR-PP3993VS**. This requires the operator to manage and operate the activities in accordance with a written fire prevention plan using the current, relevant fire prevention plan guidance.

We have examined the document and cross-referenced the contents with NRW's FPMP assessment criteria.

SITE PLAN

Figures six to eight in ARL's Fire Plan are illustrated with a legend that identifies the work areas, building layouts and the permit boundary which is outlined in red. The access points for the fire engines and water supplies are identified along with the permitted discharge locations established. The plan references the water lagoon area along with the authorisation to use the water supplier in the case of fire emergency incident. The location of the quarantine area is also acknowledged with a more detailed description of the procedures in place later in the document.

The plan identifies the issues surrounding seasonality and that warm, wet weather is associated with an increased level of risk for self-combustion of stored materials. With the warmer months approaching, it is paramount that all procedures are firmly in place to mitigate the fire risks on site.

MONITORING / TURNING OF STACKS

Page 18 of ARL's FPMP references the maximum storage durations and outlines the site rotation for the transfer station materials, namely wood (processed and unprocessed), cardboard, carpets, plastics and combustible fines. It is good to see that extensive monitoring procedures have been drawn up to address the issues of self-combustion. It is stated that various monitoring equipment will be installed in each waste pile stored greater than three months on site. Loose shredded plastic is said to benefit from daily monitoring with infrared sensors on piles stored more than three months.

It is important that waste rotation is executed diligently and storage times for various materials are recorded and kept accurately. We asked how this process is managed and checked on site and it was said that the site populate a table detailing the material composition, location and the duration of storage (*elaborated on Page 15 of this Audit*). We ask that the company develops a way of recording and sharing this information with NRW to show the amount of time material is spending on site.

FIRE FIGHTING STRATEGY

Firefighting equipment is kept on site and staff are aware of the locations in the event of a fire. This is so that operations have the capability to address any fire issue before the need for emergency services. Four mobile water bowsers are available on site in the event of any incident.

Fire detection apparatus are installed across the work areas and buildings are fitted with fire suppression systems. These are proportionate to the scale of waste management activities on site. Records and log books of staff training is documented with comprehensive list of employees with completion dates.

WATER SUPPLIES / FIRE WATER

The business has permission to use the lagoon located on Neal Soil Suppliers Ltd site which holds a substantial volume of water. This is the allocated water supply in the case of emergency incidents. The site must have contingency measures in place that are able to deal with the issues that can arise during and after an incident. This would involve guaranteeing the fire water is effectively managed so that it does not compromise the drainage system and that surrounding protected areas are not at risk.

We have been ensured that the engineered systems and interceptor has the capacity to handle such volumes and prevent uncontrolled discharges of fire water. There impermeable bunds present for both yards along with a gully around the perimeter in Field 1.

DESIGNATED QUARANTINE AREA

Two designated areas are stated in ARL's Plan where burning waste can be placed to be extinguished; Field 1 as per *Figure 7* and the concrete area by the Transfer Station.

It is recognised that these areas have the capacity to store 50% of the volume of the largest waste pile on site, which satisfies the requirement. This allows the ability to manoeuvre and pull away sections for isolation and to extinguish hot points.

Site operatives would use Mobile Plant to spread the burning waste in the Quarantined area.

REVIEWING OF YOUR FPMP

The business should have fixed times for checking the document and when it will be reviewed. The site must ensure that your FPMP is a live working document that is constantly implemented, checked and reviewed regularly.

Storage arrangements

There has been historical confusion with the theoretical storage arrangements – some procedures complied with old guidance and some with newer updated version. The site must ensure that this is eliminated by only dealing with the most current versions of guidance documents.

COMMON CAUSES OF FIRE

The submitted Fire Risk Assessment (FRA March 2018) correctly identifies the fire hazards and the associated risk factors on site. The text clearly identifies hazards across the site along with the human and mechanical factor attributed to ignition.

BIOMASS BOILER

We inspected the newly constructed Biomass Boiler unit and discussed the planned process. The facility is intended to burn Grade C (fuel grade) wood chipped to 80mm's, to provide heat to assist with the processing of surface run-off at the Water Treatment Plant. The unit is fitted with an emissions stack and we discussed the permitting options for the activity - the site is currently awaiting a decision for application to vary the permit to include this activity.

We were also shown the installed dryer which is intended to blow hot air through the material in skips. This is to aid in the processing of the material. We stated that this could present an increased fire risk and would need strict Fire mitigation methods when operated, which would need to be drafted into the business' FPMP.

STORAGE TIMES AND COMBUSTION FACTORS

Page 18 of 40 of ARL's Fire Plan references the maximum storage durations for materials; six months, three months or one month for the respective waste types.

Testing and maintenance routines have been listed in the document along with the periodic inspections of the various work areas. The plan identifies the hazards of self-heating and states the procedures implemented to off-set the risks associated with the various materials on site. It is important that the extensive monitoring procedures mentioned in the Fire Plan are adhered to, to address the issues of self-combustion.

It is stated that *'storage times of greater than six months may be acceptable if the operator demonstrates an appropriate case'*. When storing material for longer than three months, the business must demonstrate to NRW the additional measures to be taken to ensure self-combustion factors are addressed.

The permit specifies that *'treatment of non-hazardous waste as set out in Table S2.1a into different components for disposal is limited to no more than 50 tonnes a day'*. With this daily limit, this indicates that the stockpiles could have been present for more than three months.

Table 1 – Maximum Storage Times

Combustible Waste Type	Maximum Storage Time on Site
Non-shredded or similarly treated wastes (that is wastes whose particle size has not been reduced)	6 Months
Baled and compacted wastes (if kept for longer periods you should consider breaking the bales & re-bale to help reduce risk) <u>Please note that if you intend to do this, you must include this information in your FPMP.</u>	6 Months
Shredded and similarly treated wastes (that is wastes whose particle size has been reduced)	3 Months
Combustible fines/dusts & very small particle size wastes	1 Month

WASTE STORED WITHIN BUILDING / CONTAINERS

It is stated that if combustible fines are accumulated they will be stored in metal containers with a storage limit of one month.

The FPMP guidance gives the procedures to follow when waste is to be stored within a building. This mainly relates to the Material Recycling Facility (MRF) where waste is temporarily deposited and put through the separation process. It is then sorted and then transferred to relevant storage area ready for removal from site. Waste streams were adequately separated at the time of inspection.

BALED WASTE STORAGE

There was no baled waste stored in any part of the permitted area at the time of inspection. ARL's Fire Plan

references that the business is unlikely to store baled RDF on site in the future. However, if baled RDF waste is to be stored on site it will be labelled with dates and the intended destination of the product. There was no shredded loose plastic waste stored in enclosed in bays or wall structures at the time of inspection. The various waste streams from the transfer station were segregated into piles ready for further sorting.

FIELDS 2 AND 3

Upon inspecting Fields 2 and 3 it appeared that the level of the land had been raised with fresh tipping of soils and stones. It has been declared that this land is primarily used for the Soil Processing Facility and that at the time of the permit, it was agreed that such a report will only be submitted for the Neal's Soils Suppliers Ltd operations.

Table A2 of the permit, relating to soil processing activities states that *"storage of all non-hazardous wastes shall be on an impermeable surface with sealed drainage, unless otherwise agreed in writing with the natural resources Wales, as set out in pre-operational condition 1 of table S1.4B"*.

Evidence has been provided to show that NRW agreed to the storage of non-hazardous and inert soils that meet specific criteria to be stored in the fields. A report was submitted and NRW will investigate this matter further in the future.

Other conditions attached to the soil processing activities include:

- Maximum storage shall not exceed 100,000 tonnes at any one time
- Waste shall not be stored or spread within 10m of a rean or ditch and no trafficking of vehicles should occur within this buffer zone
- Buffer zones should be clearly defined with a fence or bund
- A maximum storage time of one year prior to disposal or three years prior to recovery
- Other conditions related to the status of the waste related to dust, odour and invasive plants

Following the inspection, these are our observations concerning permit non-compliances:

WASTE RETURNS

Category 4 Breach

G) Monitoring and records, maintenance and reporting – Reporting

Paragraph 4.2.2:

"Within one month of the end of each quarter, the operator shall inform the Agency using the form made available for the purpose of, the information specified on the

The permit requires the business to submit its waste return documents every quarter within the one-month grace period. The business failed to submit its waste return document for Quarter 1 of 2018. It is your duty under your permit conditions to ensure that the document is submitted to NRW on time.

NRW are unable to verify the waste input and output of the site for this period without this document.

This has scored a **Category 4** breach against permit condition **4.2.2** as a result. Measures should be put in place to ensure returns are submitted diligently and that this does not re-occur in the future.

form relating to the site and the waste accepted and removed from it during the previous quarter”.	ACTION: Submit all future waste return documents within the allocated grace period of one-month. If these are not submitted on time this will continue to breach against the condition.
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Quarterly Returns Period Return Submission

Q1 - 1st January to 31st March – Deadline: 30th April

Q2 - 1st April to 30th June – Deadline: 31st July

Q3 - 1st July to 30th September – Deadline: 31st October

Q4 - 1st October to 31st December – Deadline: 31st January

Once completed the spreadsheet must be sent to this email address:

waste.returns@cyfoethnaturiolcymru.gov.uk

Solid reminders should be put in place to ensure the spreadsheets are submitted without fail. As part of your waste duty of care you must classify the waste the business produces:

- before it is collected, disposed of or recovered
- to identify the controls that apply to the movement of the waste
- to complete waste documents and records
- to identify suitably authorised waste management options
- to prevent harm to people and the environment.

Waste volumes

The site submitted the Quarter 1 Waste Return document for 2018 on 18th May 2018. It has been declared that 30,787 tonnes were accepted on site and 26,393 tonnes removed in the three-month period.

Inspection 17.05.2018

Officers Adam WARD and Alex BOWDER attended site with measuring equipment to assess the stockpile dimensions and separation distances.

Category 2 Breach <u>C2 - Management Systems and Operating Procedures</u> Permit Condition 3.7.1: <i>"The operator shall manage and operate the activities in accordance with a written fire prevention plan using the current, relevant fire prevention plan guidance."</i>	Maximum Storage Heights We questioned the management processes regarding the storage heights of the loose shredded plastic stacks. In the last twelve months, a five-meter-high mess fencing has been installed along part of the transfer station perimeter in Field 4. It was stated that yard operators stack material to be in line with the five-metre fence level. The Fire Prevention and Mitigation Plan guidance specifies that the maximum storage height of materials should not exceed four metres. Additionally, <i>Table 3 - page 20</i> of ARL's FPMP clearly sets out the maximum storage dimensions which mirrors the guidance.
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	It was evident from observations, which was agreed by staff at the time of inspection, that the stack heights were more than four metres in height - ranging on average between <u>five to six metres</u>. Therefore, the stored shredded plastic material in Fields 1 and 4 were not compliant with the height specification. This has scored a Category 2 breach against condition 3.7.1 as a result. <u>ACTION:</u> Reduce the waste stack heights of the loose shredded plastic stockpiles in Fields 1 and 4 so that they do not exceed four metres. Implement procedures to see that material is not stored higher than this in future and submit to NRW. Deadline: 18th July 2018
Category 2 Breach continued	Separation Distances A measuring device was used to gauge the separation distances between the loose shredded plastic stacks in the transfer station (Field 4). The stack length of one of the stockpiles was measured to be 50 metres with a separation distance of approximately <u>10 metres</u> to the neighbouring waste stack – as per Picture 1. The site is currently managing their loose shredded plastic material in Fields 1 and 4 to be compliant with the general waste storage requirements, illustrated on the Graph, Figure 1 (Page 20 of 39) of the FPMP. We discussed with the operator at the time of inspection, that we felt the material currently stored <u>would not</u> be classified as general waste due to the plastic composition of the stacks. The summary of separation distances and stack sizes for general combustible wastes is set out in Table 2 (<i>Page 16 of 39</i>) of the FPMP guidance; which specifically states, “<u>excluding plastic/rubber</u>”. THEREFORE, DUE TO THE HIGH PLASTIC CONTENT OF THE MATERIAL, TABLE 2 IS NOT THE APPROPRIATE STANDARD TO USE FOR THE WASTE CURRENTLY STORED ON SITE. The operator should be following the stack heights, lengths and separation distances for plastic/rubber wastes outlined in the Graph, Figure 2 (page 23 of 39) of the FPMP guidance. This specifies that the separation distance for a shredded plastic loose stack, with a width of 50 metres stored next to a neighbouring loose stack, should be a minimum of 31 metres. This distance is itemised to address the higher maximum burn temperature of 1,200 degrees Celsius that the material would possess - rather than 950 degrees Celsius for general waste. Precautions must therefore be made to see that the fire risk is fully mitigated.

	It was also noted that waste had been temporarily tipped quite close to the three main piles in the transfer station. Please bear in mind a distance should be established to allow for emergency services access. The separation distances and stack sizes on site at the time of the inspection were not compliant with the current Fire Prevention and Mitigation Plan guidance. This has contributed to the Category 2 breach against permit condition 3.7.1 as a result. <u>ACTION:</u> - Increase the separation distances between the loose shredded plastic stockpiles on Field 4 so that it reflects Figure 2 (page 23 of 39) of the FPMP guidance. - Amend ARL's Fire Plan so that it reflects the correct stack dimensions. - Amend Management System so that it demonstrates how to establish the required distances with the current room available on site. Deadline: 18th July 2018 The root cause of this breach is due to the site not following procedures set out in Fire Plan and the associated guidance. Breaches can be escalated if the actions are not completed by the set date.
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Although there was 360-degree access established around each stack, the overall separation distances fall short of the required length. Adhering to the 31-metre separation distance for a stockpile displaying the current width on site, will require a change in operations management. We have a cause for concern for how long the material in Fields 1 and 4 has been stored.

We reminded the business that these limitations are in place to optimise fire-fighting abilities should an incident occur and should be adhered to as a priority. The site has agreed to use machinery to reduce the heights of the various stacks to bring them into compliance.

The business needs to assess how they intend to establish these required distances with the current room available on site, whilst complying with all permit conditions and applicable Fire Guidance. This will require amending ARL's FPMP document to address these factors and submitting the new version to NRW for review.



Picture 1 – taken on 02/05/18, showing shredded plastic waste stored next to the transfer station with a height exceeding 4m and a separation distance between stacks of 10m



Picture 2 – taken on 17/05/18, showing a close-up of waste stack in Field 4, to demonstrate the high composition of plastic in the material



Picture 3 – taken on 02/05/18, showing five metre mesh fencing installed around the loose shredded material stored on impermeable surface near the transfer station

Waste classification

Our current assessment of the material is that the waste stored in Fields 1 and 4, is that it is not classed as RDF. This is because it has not been baled or wrapped and does not appear to be meeting any specifications required by an energy from waste customer. NRW determine this material to be loose, shredded residual waste, which is mainly of a plastic content; as per **Picture 2**. You are therefore able to store this material outside on an impermeable surface with sealed drainage, in line with your A1 listed activities specified in Table S1.1.

We queried the European Waste Catalogue (EWC) coding that is used for the various materials in the permitted area. The most recent Waste Return document illustrates that most material comes in under the EWC code **17 09 04** – mixed construction and demolition waste, and **EWC 19 12 12** - mixture of materials, for residual waste inputs from other waste management facilities. Segregated wastes come in under the specific EWC codes, such as **17 08 02** for plasterboard and **17 02 01** for wood.

The EWC codes for materials leaving the site after undergoing treatment depends on the composition, location and purpose of waste, for instance whether it is for waste to energy or landfill.

Codes for material leaving the site after treatment have been coded as:

- **19 12 12** for mixed waste for processing
- **19 12 07** for wood for recycling
- **19 12 10** for RDF
- **19 12 09** for minerals recycling
-

Incoming material is said to be coded in accordance with written procedures found in management systems and the conditions of the permit.

MANAGING WASTE STACKS AND SEPARATION DISTANCES

Following inspections in 2017, it was evident that the separation distances and stack sizes for the materials stored on Field 1 were not compliant with the Fire Prevention Plan Guidance. Moving forward we want to ensure that the correct storage procedures are being firmly implemented on site and that they are being checked regularly.

We questioned the waste management of the stack dimensions and storage times of materials in the yard and how they are regulated. It was said that the Site Manager, Mr. James Perry has ultimate knowledge and control of the waste piles. The specific storage durations and rotation times of individual stacks is recorded and monitored in the Operations Manager's office using a large, wall mounted, dry-wipe site plan.

We want to question how the site intends to demonstrate to NRW the exact storage durations of the various material stockpiles; the table alone seems insufficient to prove such procedures. **The site must demonstrate to NRW how the waste management on site will uphold FPMP and adhere to the storage thresholds for the waste types.**

We ask that a strict regime is drawn up to classify the stockpiles on site with their respective storage times. The business should be able to show whether the material is classed as loose, general waste, plastic waste or RDF and the respective storage times.

We are likely to escalate any breaches scored against the permit should our investigations find that storage times are being exceeded.

FIELD 1

There was wet soil material deposited on the infrastructure from Welsh Water - this was said to be stored temporarily before going to Neal's Soils Suppliers.

Single waste stacks

At the time of inspection there was a large stockpile of shredded plastic material stored in Field 1. This was said to be over-spill storage from the transfer station area. Upon approaching the stockpile, it was apparent that the pile was of a large length without any fire breaks present. The pile had a 360-degree access and a well-established separation distance from other waste piles on the infrastructure.

We discussed the storage limitations outlined in the latest version of the FPMP guidance. The 2016 FPMP guidance document stated that the maximum storage volume for a singular waste pile should not exceed **450 cubic metres**. This was superseded by the FPMP document published in August 2017 which removed this specification.

The site is now working to the standards that a single stockpile can have an infinite length with no volume limitations - so long as it meets the height, width and separation distance requirements set out in the guidance. Material is currently being managed so that the shredded plastic waste pile has a maximum width of 20 metres.

Although there is no storage limit for the length of a single stockpile in the FPMP guidance, we are concerned that amount of material grouped together could pose issues. It was also noted that stack stored on Field one was above the maximum height allowance of four metres during the inspection.

Because of the size of the pile we have concerns regarding the fire risk. We ask that this is addressed via your EMS and by ensuring the stacks of this large length and volume are monitored with additional measures.

It is worth noting that due to the size of the Field one, there is sufficient space to allow for organisation of materials; stricter storage principles could see that fire risk is mitigated further.

ACTION:

To safeguard against fire risk, ARL's Fire Plan should demonstrate the storage principles and monitoring measures to single stockpiles of large length and volume.

Deadline: 18th July 2018



Picture 4 – taken on 02/05/18, showing the length of the loose shredded plastic stockpile stored on Field 1

ENVIRONMENT MANAGEMENT SYSTEM

On Thursday 31st June 2018 ARL sent through the latest versions of their *IMS 16-02 - Site Management Manual*, *IMS 16-02-05 – RDF Operations* and *IMS 14-03 Waste Storage Checklist*. It is apparent that the figures in the documents exceed the storage limits set out in the FPMP guidance; with maximum storage heights of five metres. This will need to be amended.

ACTION:

Amend IMS documents so that they correctly reflect the current FPMP guidance for maximum storage parameters.

Deadline: 18th July 2018



Picture 5 – taken on 02/05/18, showing the height of the loose shredded plastic stockpile on Field 1

GENERAL OBSERVATIONS

There have been historical contamination issues with asbestos in Field 3. It has been stated that this was discussed and resolved in the report submitted to NRW in February 2017.

There were no obvious issues with infrastructure on Field 1 noted at the time of inspection. The surface seemed to contain all surface water with no cracks visible - the concrete at the transfer station seemed appropriate for the activities.

The active monitoring points were discussed as we walked around the Fields on the visit. The surface water reports are being sent on time to NRW as required by the permit – these will be examined later in the year.

In the office car park adjacent to the biomass burner, there was a metal container with the word asbestos written on the side. We questioned the use of this and it was stated that it contained metal materials that were stored here to be secure from any theft and contained no hazardous content.

TRANSFER STATION

A mess fencing has been installed along the transfer station perimeter in the last twelve months. This aids with the containment of litter blowing off site and keeps loose fragments confined to the impermeable surface. Additionally, curbing is being constructed to maximise the control of any run-off or material leaving the area so that it is captured by the drainage system.

There were no issues with the drainage system on Field one noted during the visit. Surface water leachate was seen pooling next to the shredded material due to a period of heavy rainfall over night. This was of no immediate concern as the liquid would all be contained on the impermeable surface and would be captured by the drainage system.

Due to the profiling of the concrete surface water will naturally pool in some areas. We questioned how this is kept on top off in times of rainfall and it was stated that machinery can sweep up the excess water and reapply it to the material to aid cooling properties.



Picture 6 - taken on 02/05/18, showing water pooling around waste stockpile at the top end corner of Field 1

SUMMARY

The business has submitted an extensive Fire Prevention and Mitigation Plan that addresses the various fire risk factors across the business. Compliance with your permit conditions should be a priority and operations should be executed with their purpose in mind. We want to ensure the site implements these measures set out in the document to fully safeguard against the risks from operations. The business must now implement its FPMP on a daily basis and conduct procedures on site to reflect the guidance.

The Audit report has identified various permit non-compliances that do not follow the overarching FPMP guidance and subsequent fire condition 3.7 in the permit. The business must ensure that the site procedures in ARL's Fire Plan and Environment Management Systems reflect the guidance to safeguard against the risk of fire.

These are the main issues recorded as permit non-compliances and the potential risks to the environment. These must be addressed as a priority:

- **i) Waste Returns** – non-submission
- **ii) Stack heights** – exceeding the four-metre height limit.
- **iii) Separation distances** – the business are claiming their loose shredded plastic material is general waste and have been following Figure 1, Graph of FPMP for separation distances.

The FPMP guidance outlines that Graph 1 excludes plastics and rubbers (due to max burn temp 1,200 oC). This specifies that the separation distance for a shredded plastic loose stack, with a width of 50 metres stored next to a neighbouring loose stack, should be a minimum of **31m**.

- **iv) Storage times** - We have a cause for concern for how long the individual waste piles have been stored on site. We require more assurance that they are not exceeding the storage thresholds set out in the FPMP.
- **v) Single stack sizes** – the August 2017 FPMP removed the 450m³ volume limit of single stockpiles, so a single stack can be stored with an infinite length so long as it meets the height, width and separation distance requirements set out in the guidance. Operations should conduct additional monitoring conditions on piles as large as that on Field 1 to mitigate fire risk.

We aim to conduct an Audit looking at the infrastructure, drainage and surface water monitoring later in the year.

ACTIONS TO BE COMPLETED

- **ACTION:** Submit all future waste return documents within the allocated grace period of one-month.
- **ACTION:** Reduce the waste stack heights of the loose shredded plastic stockpiles in Fields 1 and 4 so that they do not exceed four metres.

Implement procedures to see that material is not stored higher than this in future and submit to NRW.

Deadline: 18th July 2018

- **ACTION:** Increase the separation distances between the loose shredded plastic stockpiles on Field 4 so that it reflects **Figure 2** (page 23 of 39) of the FPMP guidance.

Amend ARL's Fire Plan so that it reflects the correct stack dimensions.

Amend Management System so that it demonstrates how to establish the required distances with the current room available on site.

Deadline: 18th July 2018

- Demonstrate to NRW how the waste management on site will uphold FPMP and adhere to the storage thresholds for the waste types.
- **ACTION:** To safeguard against fire risk, ARL's Fire Plan should demonstrate the storage principles and monitoring measures to single stockpiles of large length and volume.

Deadline: 18th July 2018

- **ACTION:** Amend IMS documents so that they correctly reflect the current FPMP guidance for maximum storage parameters.

Deadline: 18th July 2018

