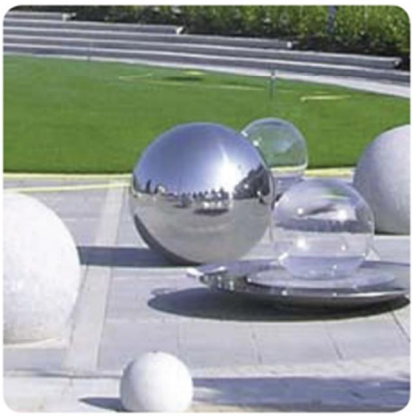
Atlantic Recycling Limited

Application for Variation of Environmental Permit Reference EPR/PP3993VS – Response to Schedule 5 Notice- 2018



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Contents

Appendices

1 Introduction

1.1 This document provides the response to the Schedule 5 Notice for further information issued by Natural Resources Wales (NRW), 14 December 2018 in response to the application for a variation of environmental permit EPR/PP3993VS for the site at Atlantic EcoPark, Newton Road, Rumney, Cardiff, CF3 2EJ.

1.2 Sections 2 and 3 of this document sets out each Schedule 5 question followed by our response or link to further information in the Appendices. Section 2 respond to the questions in Notice 2 schedule while Section 3 provides further clarification to NRWôs comments on the response previously provide to answer the questions in Notice 1 schedule.

2 Response to Schedule 5 Notice 2 -2018 Questions

Emission to Air

Question 1

The air dispersion modelling report submitted with your application provides predicted concentrations for Heavy Metals, Hydrogen Chloride, Hydrogen Fluoride, Particulates, Polycyclic Aromatic Hydrocarbons, Polychlorinated Biphenyls, Dioxins and furans etc. However, a detailed Human Health Risk Assessment has not been provided. Please provide a detailed Human Health Risk Assessment for emissions associated with the proposed Small Waste Incineration Plant.

2.1 A detailed Human Health Risk Assessment has been provided in Appendix 1.

2.2 **Action: No further action proposed.**

Waste Treatment BREF

Question 2

The waste treatment sector BAT Conclusions document was published on 17 August 2018. New waste installations and new or replacement plant at existing waste installations must use Best Available Techniques (BAT) and meet associated emission limits from the date that they are first permitted. As a new waste Installation, you will need to demonstrate how you comply with the BAT conclusions. For the purposes of this you will need to compare the proposed operations against the relevant BAT conclusions, stating if you comply with the BAT Conclusions and providing the necessary justification/evidence to demonstrate how.

The BAT assessment will need to be completed for the Section 5.4 activity, see response to information provided for previous Schedule 5 Notice. If the RDF/SRF activity is not to be considered as a listed activity, then the BAT assessment will need to be carried out for the Waste Water Treatment Plant (WWTP).

2.3 A BAT conclusion assessment has been provided in Appendix 2.

2.4 **Action: No further action proposed**

Drainage

Question 3

Please provide an updated site layout and drainage plan illustrating how the proposed WWTP fits with the existing site drainage, and all emission points from site. Drawing ref JCD0170-PER-002 provided on 27 April 2017 shows the proposed location of the WWTP but not the current drainage

including the interceptors and any penstock valves. It is worth noting that Table S3.1 of the permit will also need to be updated to account for the WWTP as a source

2.5 An Updated Drainage Plan JCD0170-086 is provided in Appendix 3. The drainage diagram presented in the OT report has also been updated and included in Appendix 3

2.6 **Action: No further action proposed.**

Question 4

Section 3.2.2 of Operating Techniques Update provided on 22 October 2018 states that runoff from the RDF/SRF building is to be collect in a sealed system. If the storage capacity is exceeded, excess water will be discharged directly into the reens or field ditches. Can you confirm where this discharge will be, if it will be via the existing drainage system or if this is a new point source emission which should be included in the permit. This drainage and discharge should also be illustrated in the drainage plan referred to above and the updated plan supplied to NRW.

2.7 Just to clarify that the Operating Techniques (OT) was not updated since May 2017. The first version (rev 002, dated March 2017) was submitted on 27/4/2017. However, on 19/5/2017 we received a letter from NRW requesting the provision of further information on specific points before the application can be duly made. The OT report was therefore resubmitted on 1/6/2017 (rev 003, dated May 2017) with the required information provided as track changes. I have supplied the same document in an email to Holly Noble on 29/10/2018 to show that recent requested information was already addressed in the May 2017 rev 003 version of the OT report. The various correspondences including the 19/5/2017 NRW letter and the 29/10/2018 email can be provided if requested.

2.8 Section 3.2.2 of the OT report is referring to clean water from roofs of the buildings. It is intended to be harvested as a source of clean water for use in suppression systems on site. At times when the tank used for the storage of such clean water is full. The clean water will be allowed to drain into the adjacent field ditch SW16. Run offs from all operational areas including from the building, if any, will be collected in the sealed drainage system and treated in the Waste Water Treatment Plant.

2.9 **Action: No further action proposed**

Question 5

The water treatment plant process diagram in Operating Techniques Update provided on 22 October 2018 shows runoff from the transfer station. Section 2.4.20 also refers to surface runoff from operational areas of the transfer station. Can you clarify if the WWTP is treating water from all the activities detailed in Table S1.1 of the permit (A1-A4) or just the transfer station. Again, this should be illustrated on the drainage plan.

2.10 Please see paragraph 2.7 above re ï updated version of OT

2.11 The WWTP will be treating water from all the activities that are carried out on impermeable surface with sealed drainage system (A1, A3 and A4) and therefore only excludes the soil processing

activities (A2) which are not carried out on impermeable surface with sealed drainage as described in the ñSoil Processing Activity - Storage and treatment of Non-hazardous Waste -Atlantic Recycling Limited -November 2016 ñ An updated Drainage plan and diagram are provided in Appendix 3.

2.12 **Action: No further action proposed**.

Waste Acceptance

Question 6

Section 2.2.1 of Operating Techniques Update provided on 22 October 2018, states that once the RDF/SRF processing facility is operational, loads categorised as a chapter 19 waste will automatically be directed to it rather than the WTS. The permit allows more 19 codes to be accepted at the WTS (Tables S2.1a and S2.1b) whilst only 19 12 12 can be accepted for RDF/SRF processing (Table S2.4). Operating in this way would therefore not be in compliance with your permit. You have applied to increase the maximum permitted quantity in table S2.4 but not to add any additional waste codes. Please advise how you wish to proceed on this matter.

2.13 Please see paragraph 2.7 above re ï updated version of OT.

2.14 The current permit has only 19 12 12 in the list of wastes for the RDF/SRF processing facility. We only need to add 19 12 10 please which is already included in the list of waste for the transfer station. We would be grateful if this code is added to this activity.

2.15 **Action: No further action proposed**

Monitoring

Question 7

Section 1.3.4 of the Non-Technical Summary states that Atlantic Recycling Limited requests the removal of the "other specifications" from Table S3.2 and Table S3.3 to be replaced by a new IMS procedure. The IMS procedure is also referred to in the surface and groundwater monitoring section of your Operating Techniques document. A copy of the procedure has not been provided. Can you please provide it

2.16 The issue of removing the groundwater monitoring requirement was discussed within several meetings with NRW during 2018. Following the submission of specific requested information, a confirmation of no objection to the removal of the groundwater monitoring requirement was received from Matthew Llewhellin in an email on 07/12/2018 which I understand was or will be supplied to you via internal channels. However, a copy of this correspondence is provided in Appendix 4 for completeness.

2.17 Also, we had several discussions with the site current regulatory officer Alex Bowder and his colleagues including David Willey and Kate Rodgers regarding moving the surface water

monitoring requirements, excluding the emission point, from the permit into the IMS, on which an agreement was reached. In addition to agreeing the moving of the monitoring requirements into the IMS, part of the agreement was also to replace some of the meaningless current monitoring locations with better alternatives. The agreed removed locations are SW03, SW10, SW11 and SW13. SW03 is currently located in a very shallow ditch of no significance and is not within the designated field ditches and reens. It is regularly dry, and no samples were possible to collect from this location for a long time. This location will be replaced by a monitoring point in one of the SSSI ditches on the other side of the road as marked in Drawing JCD0170-087 provided in Appendix 6.

2.18 SW13 is a small ditch outside the site boundaries and is of no significance for use as a reference point. It will be replaced by another location outside the site boundaries within a SSSI ditch (FP1) and therefore is more appropriate as a reference point.

2.19 SW10 and SW11 are located within a ditch which is now incorporated within the WWTP. These will be replaced by a Quality Control (QC) monitoring location as marked on the Drainage Plan JCD0170-086 provided in Appendix 3. However, the water quality trigger criteria applied to all the surface water monitoring locations will not be applicable to this location being a discharge limit quality control monitoring location, as explained in the OT report (Section 2.4) and therefore will not be included in the surface water monitoring locations. The water quality in the QC will be compared to the discharge limits. Discharge of the treated water will only be allowed at the current permitted outfall location (D2) if the quality met the discharge limits, if not the water will be passed back to the storage ditch for further treatment in the WWTP.

2.20 Additional monitoring locations that can provide informative data were discussed with NRW and certain additional locations were proposed. Affinal respond on the recommended location has not be received from NRW yet.

2.21 A detailed IMS procedure for the surface water monitoring, based on current permit conditions and further agreements with NRW is provided in Appendix 7 as IMS14-07.

2.22 Also included in Appendix 7 IMS14-08 which details the monitoring within and out of the WWTP.

2.23 **Action: No further action proposed.**

Fire Prevention & Mitigation Plan (FPMP)

Question 8

Table 2 in section 3.3.3.1 existing storage says that processed wood will be stored for up to six months. Our FPMP guidance says that shredded and similarly treated wastes (that is wastes whose particle size has been reduced) should be stored for a maximum of three months, as you have detailed in Table 1 of section 3.3.1.1. Can you explain why the storage time for this waste is longer than recommended by the FPMP guidance?

2.24 As with other processed materials, the storage is not intended to be greater than that in the guidance. However, if for circumstances, outside the operators control, the storage period was

needed to be extended, advanced monitoring using thermal imaging cameras will be used to monitor the temperature condition within the pile. Table 2 in Section 3.3.1.1 of the FPMP was modified to reflect this adopted procedure. The updated version is provided in Appendix 5.

2.25 **Action: No further action proposed**

Question 9

Table 3 in section 3.3.3.1 lists waste pile sizes and required separation distances but wood waste is not included. How will wood waste, before and after treatment be stored? Please ensure that all waste types are included in this table.

2.26 Pile sizes and separation distances for the wood will be in accordance to Graph 1 of the Guidance Note 16, which is for (950 ^{o}C typical maximum burn temperature) including wood. Table 3 in the FPMP was modified to clarify this storage arrangement. The update version is provided in Appendix 5.

2.27 **Action: No further action proposed**

Question 10

FPMP guidance states that shredded and similarly treated wastes (that is wastes whose particle size has been reduced) should be stored for a maximum of three months, and baled waste for six months. Section 3.3.4 of your FPMP says that monitoring will be carried out for processed RDF and mixed wastes should waste be stored on site for longer than three months, and for baled on RDF for longer than six months. These wastes should not be stored on site for longer than the recommended storage times, your FPMP should detail how this will be avoided. Baled waste should also be monitored regardless of storage times so procedures should be updated to reflect this, as the potential storage of baled waste although unlikely has not been completely ruled out.

2.28 NRWôs Guidance Note 16 ñFire Prevention & Monitoring Plan Guidance- Waste Managementò states on page 13 that ñ*If you are storing materials at risk of self-combustion for longer than 3 months you must demonstrate what additional measures you will take, including monitoring the piles to reduce this risk. You must include this information in your FPMP*ò. The storage of processed material for greater than 3 months with advanced method of temperature monitoring was discussed and agreed with the site officers and the FRS. A site visit to inspect the system was carried out by the current regulatory Officer Alex Bowder and FRS officer Matthew Bradford. The agreed longer period with advanced monitoring was therefore included in the approved FPMP which is currently used by the regulatory officer to assess the siteôs compliance with the FPMP.

2.29 Guidance Note 16 also states that ñ*baled and compacted wastes (if kept for longer periods you should consider breaking the bales & re-bale to help reduce risk). Please note that if you intend to do this, you must include this information in your FPMP*ò.

2.30 Although no baling is carried out at on site the moment, the approved FPMP, discusses and explains the rational of potential storing for greater than 6 months. In any case, the FPMP was

updated to include the guidance recommendation of breaking and re-baling if the bales were kept for longer periods. Monitoring of the bales is included in the updated version. The update version is provided in Appendix 5.

2.31 **Action: No further action proposed**

Question 11

Section 5.3 of the FPMP relating to the Biomass Boiler says the boiler has a self-contained fuel bunker with a capacity of approximately 20 tonnes and usual practice will be to keep one day's worth of fuel (approx. 7 tonnes). The Boiler Operating Techniques document says in section 3.2.4, there is sufficient capacity for two days' worth of fuel. This would be approximately 14 tonnes. No detail is provided in either document about how the fuel will be stored and managed, and contradictions between the documents need to be corrected and re-submitted to NRW.

2.32 The bunker has a capacity of 20 tonnes which is approximately 3 daysôworth of fuel. Generally, the bunker will have one daysôs worth of Fuel (approx. 7 tonnes). However up to 3 daysôworth of fuel (20 tonnes) could be stored in the bunker for weekends and holidays. Section 5.3 of the FPMP states the same in the following paragraph ñThe Biomass Boiler has its own self-contained fuel bunker that has a max capacity of approximately 20 tonnes. It is usual practice to only keep one daysôworth of fuel in the bunker at a time (approximately 7 tonnes) and only fill it to capacity on a Friday night to see it through the weekendò. Sections 5.3 of the FPMP and 3.2.4, of the Boiler Operating Techniques document were slightly modified to reflect the above and the updated version of the latter is provided in Appendix 8.

2.33 In terms of management, the wood fuel will be transferred directly by a front loader truck from the transfer station into the bunker which is located inside the building. Fuel will then be extracted from the storage area using a circular ñAgitatorò or ñArticulated Arm Dischargerò. Details of the management of the fuel are provided in Section 3.2 of the Boiler Operating Techniques document ñFuel Reception, Storage and Handlingò

2.34 The fuel will be stored inside the bunker for a very short period and therefore there is a very low potential for any changes to take place that requires further management measures beside those mentioned in the above referenced section. Also, as stated in the FPMP, the fire prevention and mitigation methods presented in Sections 3 and 4 are applicable to the boiler building and will be implemented accordingly.

2.35 **Action: No further action proposed**

Question 12

Seasonality should consider changes in supply and demand for waste, not weather conditions. Section 3.3.5 should be updated to reflect this.

2.36 The FPMP was updated to include information on the seasonality. The update version is provided in Appendix 5.

2.37 **Action: No further action proposed**

Changes to proposed variation

Question 13

When your application was first submitted you stated that post processing of RDF/SRF waste, loose waste would be stored within the building and baled waste outside on an impermeable surface with sealed drainage. You have since requested that loose waste also be stored outside due to a change in customer requirements for non-baled waste. Can you please advise what procedures will be in place for the management of the storage of loose waste outside? The Environmental Risk Assessment provided with your application considers baled waste stored outside. This will need to be redone to consider the storage of loose waste and re-submitted to NRW

2.1 The ERA has been updated to include storage of loose waste outside. The revised ERA is provided in Appendix 9

2.2 **Action: No further action proposed**

3 Further Response to Schedule 5 Notice 1 -2017

Fire Prevention & Mitigation Plan (FPMP)

Question 2

The total amount of waste & the types and forms (e.g. unprocessed, shredded, chipped, fines or baled) that are stored on site at any one time have still not been provided. The volumes in the drawing provided are for material type only, not the form. It is noted that this drawing has been superseded by figures 7 and 8 in FPMP version 5 which does not detail waste types or form.

3.1 The total amount of waste and the types and forms stored at any one time cannot be fixed due to the variable nature of the waste business. Atlantic receives various types of wastes for which their permit set fixed maximum annual throughputs. However, the amount of each type varies throughout the year depending on supply and demand.

3.2 Atlantic and RPS have discussed this matter with NRW on several occasions but specifically in April 2017 with the regulatory officer at the time Damien Downes and FRS officer Rob Slater. This discussion resulted in a final agreement that the details of total amount of waste and the types are provide on a specific type of a plan.

3.3 The plan was called ñTheoretical storage arrangementsò. The purpose of the plan is to identify the maximum storage capacity on site from available storage areas and relevant storage regulatory conditions (i.e., area, height, separation distances) as required by the then relevant guidance ñFire prevention and mitigation plan guidance ï Waste, Version 1, May 2016ò.

3.4 Drawing JCD0170-53 provided in Appendix 10 was the greed way to present the theoretical arrangement. Considering that the then current guidance allowed different storage piles sizes for the different types of materials, the drawing included two scenarios, each of which gave different total storage volumes for the site. It was agreed that the total storage at any time should fall between the two maximum values for regulatory purpose, depending on which materials were dominantly stored on site at the time.

3.5 It was also agreed that a board is provided on site that shows which of the piles is processed and the date of processing to keep track of the storage time too. Consequently, the above plan and the board were used to assess the site compliance with regards to storage and were referenced in all subsequent Compliance Assessment Reports (CARs) issued for the site.

3.6 Following the issue of the new WISH and NRW Note 116 guidance, and through a discussion with the new regulatory officer Alex Bowder and FRS officer Matthew Bradford, the waste storage arrangement was changed in accordance with the new storage conditions (i.e., area, height, separation distances) provided in this new guidance which is based on grouping of materials according to their similar combustion temperatures not on their type. Therefore, similar storage conditions were applied to various materials such as wood, RDF, paper and other general waste

with a combustion temperature of 950 º C and another for materials that combust at higher temperature such as plastics. In response to NRW and FRSôs advice, the old plan JCD0170-53 was replaced by plans JCD0170-FPP-007 and JCD0170-FPP-008 providing new maximum storage volumes. The new arrangement was submitted to NRW and is currently included in the site FPMP (provided in Appendix 5) and used to assess the site compliance regarding storage.

3.7 Based on this agreement, we wish to continue this method of providing the storage information being the only practical way that takes care of the variability in the types and forms of waste on site at any one time.

3.8 **Action:**

Question 3

3.9 *It is noted in your response the CCTV will be fed back to on-site security staff. Are they on-site 24/7?*

3.10 The site will be occupied by operatives during the site operational hours between 6 am and 6pm. Outside these hours, the site will be continuously patrolled by two Jeeps each with one guard and a dog. The current cameras are connected to an offsite JCB recording and monitoring system that sense and record all movements and notify the site of any abnormal activities. There is current plan to change this to an onsite 28-cameras system connected to a monitoring system to be placed in a security cabin. One of the night guards will be positioned in the cabin to monitor the cameras while the second guard patrolling the site.

3.11 **Action: No further action proposed**

Question 6

3.12 *Our FPMP guidance states that electrics on site should be fully certified by a qualified electrician and you must have written procedures in place that set out the regular maintenance. Written procedures have still not been provided*

3.13 Procedure is provided in Appendix 11.

3.14 **Action: No further action proposed**

Question 8

Section 3.3.1.2 of FPMP v5 has been updated however it is stated that there is limited information on waste pile separation distances and sizes. Given that the capacity of the building is known, operating plant and procedures and overall capacity of the site, it should be possible to calculate storage volumes and time limits within the building. As you have applied to increase the overall capacity of the RDF/SRF in your variation, this should be done. FPMP guidance says that you should ensure that waste stack sizes and separation distances are appropriate to the risk and that Table 2 can be used as a starting point but not absolute guidance for internal storage

3.15 The storage arrangement inside the building is provided in Drawing JCD0170-FPP-007 and Drawing JCD0170-FPP-008 with the volume ñwithin new buildingò being tabulated on these drawings. Paragraph 3.3.1.2 states that the storage of processed RDF/SRF inside the building will be in line with the storage duration recommended in the NRW FPMP guidance. To further clarify, we have now referred to table 2 ñARL Maximum Storage Times of Wastesòin this paragraph of the updated FPMP provided in Appendix 5 too so to show that the maximum storage times apply to wastes stored within the building.

3.16 **Action: No further action proposed**

RDF/SRF Production

Question 16

3.17 *No additional details were provided in the Schedule 5 response itself and it is stated that Atlantic are content for this activity to be regulated as a waste operation. However, on review of the Operating Techniques update that was provided on 22 October 2018, it is noted that section 2.3 has been updated with details about meeting contract specification and increasing the calorific value of the waste. It is assumed from the additional detail added, that you wish to proceed with this activity being a Schedule 1 listed activity as applied for. Can you please confirm that you are happy for us to proceed with your application on this basis?*

3.1 We can confirm that we are happy for you to proceed with our application on this basis

3.2 **Action: No further action proposed**

Appendix 1 – Detailed Human Health Risk Assessment

Appendix 2 – BAT Conclusion Assessment

Appendix 3 – Updated Drainage Plan

Appendix 4 – Email of No Objection from Matt Llewhellin

Appendix 5 – Updated FPMP

Appendix 6 – Replacement Monitoring Locations

Appendix 7 – Surface Water Monitoring (IMS14-07)

&

Waste Water Treatment Procedure (IMS14-08)

Appendix 8 – Updated Boiler Operating Techniques document

Appendix 9 – Updated ERA

Appendix 10 – Drawing JCD0170-53

Appendix 11- Electrics Maintenance Procedure