This document has been cleared for submission to the Board by the Programme Manager, Frank Clinton
Signed: N Keavey Date: 18/3/13.

Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

OFFICE OF CLIMATE, LICENSING & RESOURCE USE

REPORT OF THE TECHNICAL COMMITTEE ON OBJECTIONS TO LICENCE CONDITIONS

TO:	Directors
FROM:	Technical Committee - **LICENSING UNIT**
DATE:	13th March 2013
RE:	Objection to Proposed Determination for Wellman International Limited, Licence register P0236-02

Review Details	
Class(s) of activity:	8.4: The manufacture of synthetic fibres, not included in paragraph 5.12.
Location of activity:	Mullagh, Kells, Co Meath.
Category of Activity under IPPC Directive (2008/1/EC):	Not annex I
Category of Activity under IED (2010/75/EU):	Not annex I
Section 87(1)b notice sent:	29th September 2011
Review form received:	13th January 2012
PD issued:	31st October 2012
First party objection received:	26th November 2012

Environmental Objectives Regulations Review

Reason for Licence Review

On the 29th September 2011, the Agency initiated a review of the IPPC licence held by Wellman International Limited for the installation located at Mullagh, Kells, Co. Meath, IPPC licence register number P0236-01.

The reasons for initiating this review are in light of the requirements under the following Regulations:

(1) The European Communities Environmental Objectives (Surface Waters) Regulations 2009.
(2) The European Communities Environmental Objectives (Ground Water) Regulations 2010.

Company

Wellman International Limited (WIL) produces polyester which is sold for a variety of uses such as furniture and bedding. They recycle over 5 million post-consumer polyethylene terephthalate (PET) bottles daily. Processes include drying, milling, melting and spinning and finally coating. WIL employs approximately 270 people on a 27 acre site.

Consideration of the Objection

The Technical Committee, comprising of Ann Marie Donlon (Chair) and Marie O'Connor, has considered all of the issues raised in the Objections and this report details the Committee's comments and recommendations following the examination of the objections together with discussions with the inspector, Emer Cooney (OEE), who also provided comments on a point raised.

This report considers the first party objection. No third party objections were received. The main issues raised in the objection are summarised below. However, the original objection should be referred to for greater detail and further expansion of particular points.

First Party Objection

The licensee makes 13 points of objection which are considered below under 11 headings.

A.1. Condition 6.12

6.12 Within eighteen months of the date of this licence, the licensee shall, in line with the criteria set out in the *Guidance on the Authorisation of Discharges to Groundwater*, published by the Environmental Protection Agency, review the most relevant hydrogeological assessment report for the installation or where relevant, arrange for an assessment of the installation, by an appropriately qualified consultant/professional, to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010, S.I. No 9 of 2010. A report on the review or assessment report with recommendations, shall be included in the next AER. Further to the hydrogeological review or assessment, any actions (including the setting of groundwater compliance values, if appropriate) required to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010, shall be implemented before 22nd December 2015.

The licensee considers that this condition should be reviewed as they have installed 6 boreholes and these have been monitored every 3 years.

Technical Committee's Evaluation:

The TC notes that it was reported to the Board at PD stage that there was a historical fuel spill at the installation in the 1970's and that additional monitoring boreholes were sought by the OEE but they were not aware of any having been installed. The TC has reviewed the Annual Environmental Reports for four years and note that there is no monitoring data for the additional boreholes that the licensee states in the objection as having been installed and monitored. The Agency has not been advised to date of the additional boreholes or the monitoring results obtained.

The TC notes that the reason for initiating this review was in part due to the requirements of the EC Environmental Objectives (Groundwater) Regulations 2010,

as amended. This condition is to meet the obligations of these regulations as the historical contamination may continue to be a source of potential pollutant input into groundwater.

Given that the licensee has already installed additional boreholes and has monitoring results, the TC considers that a substantial part of the obligation under this condition has been met and it may be a matter of arranging for a desktop review of existing data and reporting to the Agency in the context of the EC EO (Groundwater) Regulations 2010, as amended. The TC recommends retaining the condition.

Recommendation: No change

A.2. Condition 6.15.1

6.15.1 A visual examination of the storm water discharges shall be carried out daily. A log of such inspections shall be maintained.

The licensee requests weekly visual inspection in line with the current licence requirement and they state that 'Wellman International Limited has not had any issues with their storm water emission'.

Technical Committee's Evaluation:

The TC notes that the monitoring frequency specified in Schedule C.2.3 Storm water emissions is 'weekly' for visual inspection in the PD and that weekly is specified in the current licence. No storm issues were reported to the Board at PD stage. The TC recommends that the condition should read weekly.

Recommendation:

Replace daily to weekly in Condition 6.15.1 so as it will read as follows:

6.15.1 A visual examination of the storm water discharges shall be carried out **weekly**. A log of such inspections shall be maintained.

A.3. Condition 6.15.2

6.15.2 The licensee shall establish suitable trigger levels for pH, Conductivity, COD and TOC in storm water discharges, such that storm waters exceeding these levels will be diverted for retention and suitable disposal. The licensee shall have regard to the Environmental Protection Agency "*Guidance on the setting of trigger values for storm water discharges to off-site surface waters at EPA IPPC and Waste licensed facilities*" when establishing the suitable trigger levels.

The licensee considers that TOC should be removed from the condition and replaced with temperature and total ammonia as TOC is not a parameter required to be monitored under Schedule C.2.3 Monitoring of Storm Water Emissions whereas temperature and total ammonia are included in this schedule.

Technical Committee's Evaluation:

The TC notes that the existing licence requires BOD monitoring on a monthly basis on storm water emissions. The rational for including TOC monitoring in this licence condition and not in Schedule C.2.3 Monitoring of Storm Water Emissions was not reported to the Board at PD stage. The TC considers that typically either TOC or COD are required to be monitored but not both and on that basis it is deemed that the inclusion of TOC is an error. The TC agrees that the trigger levels should also be

set for total ammonia and temperature given that they are monitored. The TC recommends rewording the condition to remove TOC and include total ammonia and temperature.

Recommendation:

Replace condition 6.15.2 with the following:

6.15.2 The licensee shall establish suitable trigger levels for pH, Conductivity, COD, **total ammonia and temperature** in storm water discharges, such that storm waters exceeding these levels will be diverted for retention and suitable disposal. The licensee shall have regard to the Environmental Protection Agency "*Guidance on the setting of trigger values for storm water discharges to off-site surface waters at EPA IPPC and Waste licensed facilities*" when establishing the suitable trigger levels.

A.4. Condition 9.1

9.1 The licensee shall, within six months of date of grant of this licence, ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.

The licensee requests that this condition is reworded to 'maintain' as they have an existing documented Accident Prevention Procedure.

Technical Committee's Evaluation:

The TC agrees and recommends rewording the condition.

Recommendation:

Delete 'within six months of date of grant of this licence' so as condition 9.1 reads as follows:

9.1 The licensee shall ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.

A.5. Schedule B.1 Emissions to Air, Schedule C.1.1 Control of Emissions to Air and Schedule C.1.1 Monitoring of Emissions to Air in relation to A2-13 and A2-14

The licensee considers that the ELV's, control of emissions and monitoring requirements for A2-13 should be removed as this location was decommissioned in January 2005 and the Agency were notified.

The licensee states that air emission location A2-14 was discontinued within 12 months of grant of licence as required by the Agency.

Technical Committee's Evaluation:

The TC notes that A2-13 and A2-14 no longer exist and recommends that they should be removed from the licence.

Recommendation:

Delete table and details in relation to emission point reference number A2-13 from Schedule B.1 Emissions to Air.

Delete monitoring and equipment tables in relation to emission point reference number A2-13 from Schedule C.1.1 Control of Emissions to Air.

Delete table in relation to emission point reference number A2-13 and A2-14 from Schedule C.1.2 Monitoring of Emissions to Air.

A.6. Schedule B.1 Emissions to Air in relation to A2-27

The licensee requests that the maximum flow rate per hour for A2-27 should be increased from 6,000m^3 to 10,000m^3 as this scrubber was installed in 2002 with an operational flow of 10,000m^3 and this was notified to the Agency. The commissioning report and biannual monitoring results show that concentrations and mass emissions are well below the licence mass emission limits.

Technical Committee's Evaluation:

The OEE advised that the licensee notified them of the flow rate increase for A2-27. Having regard to the TA Luft stack height Determination Nomogram (draft English translation 2000), the current stack of 20m above ground level is adequate for flow rate of 10,000m^3/hr. The TC notes from the objection that the emission point operates continuously. The TC considers that mass flow limit based on current volumetric limits multiplied by concentration limits will ensure that the increase in volumetric flowrate will not be a significant change to the emissions from the installation. The TC recommends increasing the hourly flow rate with a concurrent increase in the daily flow rate for emission point reference A2-27 and specifying a mass flow limit based on current limits.

Recommendation:

Amend the flow rate limits from 6,000m^3/hr to 10,000m^3/hr and 144,000m^3/day to 240,000m^3/day in Schedule B.1 emissions to Air in relation to A2-27 and include mass flow limits so as it reads as follows:

Emission Point Reference No.: A2-27

Location : Rosin Dryers Scrubber Exhaust

Volume to be emitted: Maximum in any one day : **240,000 m^3**

Maximum rate per hour : **10,000 m^3**

Minimum discharge height: 20 m above ground

Parameter	Emission Limit Value	
TA Luft Organics Class I	20 mg/m^3 (at mass flows>0.1kg/h)	**2.88kg/day**
TA Luft Organics Class II	100 mg/m^3 (at mass flows>2kg/h)	**14.4kg/day**
TA Luft Organics Class III	150 mg/m^3 (at mass flows>3kg/h)	**21.6kg/day**

A.7. Schedule B.2 Emissions to Water in relation to SW1

The licensee objects to the concentration emission limit values as concentration ELV's for BOD, Suspended solids, OFG, total ammonia and ortho-phosphate are not being met on a consistent basis. At present the emission is compliant based on the mass emission limit only. The licensee requests that the existing licence provision that allows the concentration limit to increase pro rata for lower effluent flows.

The licensee considers that the Agency is not fully aware of the characteristics of the final treated effluent and documents concentration ranges for BOD and SS. The licensee considers it unreasonable to comply with the proposed new stringent ELVs for BOD and SS in the new licence without any time for upgrades.

The licensee points out that the assimilate capacity calculation is based on mass emissions and therefore it is reasonable to assume that the concentration limit can continue to be increased pro rata for treated effluent flows below 580m^3/day. The licensee also points out that they have invested €200,000 in the WWTP in 2012 which has been designed to meet the emission limit values on the pro rate basis that pertains at present. The licensee also points out that existing chemical monitoring data of the Moynalty River downstream of the discharge indicates that the river can accept the existing discharge based on the existing mass emission limit and that further dilution occurs when the treated effluent combines with storm water.

Technical Committee's Evaluation:

The TC notes the quality of the discharge varies in terms of concentration levels and that current compliance is based mainly on being within mass emission limits. Note 2 appended to the table in Schedule 2 (i) Emissions to Water of the current licence reads as follows:

Note 2: The concentration limit may be increased pro-rata for effluent flows from the WWTP below 580 m^3/d and 25 m^3/h.

This means for example that the concentration limit at the maximum volume discharged in 2012 of 205m^3/day had a corresponding concentration limit of approximately 42mg/lBOD. This concentration limit increases as the volume decreases and is closer to 100mg/l BOD under average discharges of 100m^3/day. In short there is no upper limit to the concentration limit which is normally required by BAT.

The BATNEEC guidance note for the manufacture of synthetic fibres, the relevant BAT note for this installation, specifies a maximum concentration limit value of 40mg/l BOD but no limits for COD or suspended solids. Monitoring data provided by the licensee with their objection indicates that the BAT associated limit for BOD cannot be met consistently at this installation.

The TC notes that the maximum volume discharged in 2011 and 2012 was 228m^3/day and 205m^3/day respectively, which is less than half the maximum volumetric limit specified in the licence (580m^3/day). The licensee did not revise downwards their maximum volumetric discharge rate as part of their objection. The assimilative capacity of the receiving water is limited as described in the mass balance calculations reported to the Board at PD stage and were based on the maximum discharge of 580m^3/day.

The TC considers that mass emission limits ensures compliance with the Environmental Quality Standards in the receiving water. Mass limits provide the licensee with some flexibility in discharge concentrations whilst protecting the receiving water. The TC considers that maximum concentration emission limits are specified to ensure that BAT is being applied. Otherwise, poor control of abatement equipment will prevail.

The TC considers that the current discharge limits can be carried forward until 22nd December 2015. Thereafter, BAT associated concentration levels for BOD, total nitrogen, total ammonia and oils fats and grease (OFG), and mass emission limit values based on the EQS or as specified in the existing licence will apply. Thereby the ELV's specified in the licence will have been established according to the combined approach. The licensee will need to improve control and monitoring at the WWTP to meet these proposed emission limit values (ELV).

The BAT level for OFG is higher than the existing concentration limit and therefore the current mass emission is carried forward. Although suspended solids does not have a BAT associated concentration level, 50mg/l ELV has been demonstrated to be achievable in the documentation accompanying the objection. The mass emission limit for both OFG and suspended solids are carried forward so as to ensure that there will not be an increase in emissions as a result of this review.

Recommendation:

Amend Schedule B.2 Emissions to Waters so that the current ELV's from licence P0236-01 applies until 22nd December 2015 and thereafter new ELV's based on the combined approach applies. The schedule should read as follows:

B.2 Emissions to Water

Monitoring Location: SW1(treated effluent prior to mixing with storm water

and cooling water)

Discharge Location: SWDP1

Name of Receiving Waters: Moynalty River

Volume to be emitted: Maximum in any one day: 580 m^3

Maximum in any one hour: 25 m^3

Parameter	Emission Limit Value **until the 22nd December 2015** Note 1 & 2	
Temperature	20 °C (max)	
pH	6 – 8.5	
Toxicity	5 TU	
	mg/l	**kg/day**
BOD	18	10.44
Suspended Solids	18	10.44
Nitrates and Nitrites (as N)	15	8.7
Total Ammonia (as N)	8	4.64
Ortho Phosphate (as P)	2	1.16
Detergents	4	2.32
Oils fats and greases	10	5.8

Note 1: All emission limit values refer to the effluent as sampled at monitoring point SW1.
Note 2: The concentration limit may be increased pro-rata for effluent flows from the WWTP below 580 m^3/d and 25 m^3/h.

Parameter	Emission Limit Value **from the 23rd December 2015** Note 1	
Temperature	20 °C (max)	
pH	6 – 8.5	
Toxicity	5 TU	
	mg/l	**kg/day**
BOD	**40**	**8.7**
Suspended Solids	**50**	10.44
Total Nitrogen (as N)	15	--
Total Ammonia (as N)	**10**	**0.58**
Ortho Phosphate (as P)	2	**0.348**
Detergents	4	--
Oils fats and greases	**25**	5.8

Note 1: All emission limit values refer to the treated effluent as sampled at monitoring point SW1

A.8. Schedule B.4 Noise Emissions

The licensee objects to the 30 minutes duration as it is onerous and unnecessary to increase the monitoring periods by 15 minutes at each location during the annual survey. They request the existing duration of 15 minutes. The licensee advises that they have implemented a continuous noise reduction programme and have not received any noise complaints in over five years and they are compliant with the existing noise emission limits.

Technical Committee's Evaluation:

The TC notes the efforts of the licensee in relation to noise which has resulted in compliance. The TC also notes that the sampling period specified in the OEE *Guidance Note for Noise: Licence applications, Surveys and assessments in relation to Scheduled Activities (NG4)* can be either 15 minutes or 30 minutes in duration depending on what is stated in the licence. The current licence specifies 15 minutes and as noise was not within the scope of the review, the TC recommends reverting to the current sampling period of 15 minutes. It is noted that condition 6.16 requires noise surveys to be completed in accordance with the new guidance.

Recommendation:

Replace '30 minutes' with '15 minutes' in Schedule B.4 Noise Emissions so as it reads as follows:

B.4 Noise Emissions

Daytime dB(A) L_{Aeq} (15 minutes)	Night-time dB(A) L_{Aeq} (15 minutes)
55 Note 1	45 Note 1

Note 1: There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity of any noise-sensitive location (with the exception of the noise sensitive location at N2).

A.9. Schedule C.2.1 Control of Emissions to Water in relation to SW1

The licensee objects to weekly monitoring of BOD ex biotower as the biotower has been decommissioned as agreed with the Agency (P0236-01/ak19ec Oct 2012).

The licensee objects to the term 'aerator' under equipment as dissolved oxygen is provided by diffused aeration system and the existing standby blower is the back-up equipment for the diffused aeration system. The licensee considers the 'standby blower' should be included in the backup equipment.

Technical Committee's Evaluation:

The TC notes that the biotower has been decommissioned with the approval of OEE and that there is a diffused aeration system in place. The TC recommends updating *Schedule C.2.1. Control of Emissions to Water* in relation to SW1.

Recommendation:

Replace reference to 'BOD (ex biotower)' with 'BOD (ex Aeration basin)' in the first table and replace 'aerator' with 'blower' under equipment on the second table for SW1 in Schedule C.2.1 Control of Emissions to Water so as it reads as follows:

Monitoring Point Reference No.: SW1 (treated effluent prior to mixing with storm water and cooling water)

Description of Treatment: Biological Waste Water Treatment

Monitoring:

Monitoring to be Carried Out	Monitoring Frequency	Monitoring Equipment/Method
pH (exBalance Tank)	Weekly	pH Meter/Recorder
BOD (exBalance Tank)	Weekly	Standard Method
BOD (ex Aeration basin)	Weekly	Standard Method
Dissolved Oxygen (Aeration Basin)	Continuous	DO Meter/Recorder
BOD (Final Effluent)	Weekly	Standard Method
Flow (Final Effluent)	Continuous	Flow Meter/Recorder
pH (Final Effluent)	Continuous	pH Meter/Recorder
Mixed Liquor Suspended Solids	Daily	Standard Methods
Sludge Volume Index	Daily	Standard Methods

Equipment:

Control Parameter	Equipment	Backup Equipment
Effluent Transfer	Submersible Pump	Standby pump and spare held on site
Dissolved Oxygen	**Blower** Fixed DO Meter	Spare parts held on site Portable DO Meter
Suspended Solids	Sludge transfer pumps	Spare held on site
Sludge Dewatering	Belt hydropress	Spare parts held on site

A.10. Schedule C.2.2 Monitoring of Emissions to Water in relation to M/000/S

The licensee objects to the grid reference for M/000/S (combined discharge SWPD1) as it should be updated to 271541E, 285130N, the verified grid reference submitted as part of the review documentation.

Technical Committee's Evaluation:

The TC notes that the grid reference in the PD is in close proximity to the verified grid reference given in the objection. The TC recommends revising the grid reference to the verified value.

Recommendation:

Update the grid reference in Schedule C.2.2. Monitoring of Emissions to Water in relation to M/000/S so as it reads as follows:

Monitoring Point Reference No.: M/000/S (Combined discharge- SWDP1)

Monitoring location: **271541E, 285130N**

Parameter	Monitoring Frequency	Analysis Method/Technique
pH	Monthly	pH electrode/meter
Temperature	Weekly	Thermometer
COD	Monthly	Standard Method
Total Ammonia	Monthly	Standard Method
Conductivity	Monthly	Standard Method
Visual	Weekly	Standard Method

A.11. Schedule C.5 Noise Monitoring

The licensee considers that this schedule should include reference to the annual noise monitoring requirement under Condition 6.16. The licensee considers the Schedule contradicts Condition 6.16.

Technical Committee's Evaluation:

The TC notes that condition 6.16 requires an annual noise survey and that Schedule C.5 Noise Monitoring specifies 'no additional noise monitoring is required in this schedule'. The TC wishes to clarify that this means that in this case, there is no further requirements above and beyond the annual survey.

Recommendation: No change.

Overall Recommendation

It is recommended that the Board of the Agency grant a licence to the licensee

(i) for the reasons outlined in the proposed determination and
(ii) subject to the conditions and reasons for same in the Proposed Determination,
and
(iii) subject to the amendments proposed in this report.

Signed

Ann Marie Donlon

for and on behalf of the Technical Committee