

This document has been cleared for submission to Director by the Senior Inspector, Mr Brian Meaney  
Signed: M Fay Date: 23/06/2016



## OFFICE OF CLIMATE, LICENSING & RESOURCE USE

### Environmental Licensing Programme Memorandum

|       |  |
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| TO:   | Dara Lynott  |
| FROM: | Marie Fay  |
| DATE: | 23rd June 2016   |
| RE:   | Fire Conditions – Proposed Amendments to Waste and IE Licences |

In December 2013 the EPA published "*Guidance on Fire Safety at Non-Hazardous Waste Transfer Stations*" in response to concerns about outbreaks of fire at several waste transfer stations (WTS). Substantial work was progressed in the area of fire safety and prevention at waste transfer stations by the Office of Environmental Enforcement (OEE) in 2015 through liaison with the National Directorate of Fire and Emergency Management.

The Office of Environmental Sustainability (OES) has begun to routinely add conditions to waste sector licences to deal with fire risk e.g. Fire Risk Assessment (FRA) and Waste Storage Plans (WSP). Engagement with OEE has occurred in this regard.

OEE has identified 23 WTS licences and has requested Technical Amendment (TA) of these licences to insert Fire Risk Assessment and Waste Storage Plan Conditions in order to bring the licences in line with the Agency's current *modus operandi* for addressing fire risk WTS licences. This number of licences may increase depending on requirements from OEE.

Before making these amendments, and in compliance with Section 42B(2) of the WMA 1996 as amended and Section 96(2) of the EPA Act 1992 as amended, the Agency consulted with the affected licensees prior to exercising its power, enacted under Section 42B(1) of the WMA 1996 as amended and Section 96(1) the EPA Act 1992 as amended, to carry out the proposed amendments. The time given for submissions was extended following requests from licensees and the Irish Waste Management Association (IWMA). At the request of the IWMA, a meeting was held on 5<sup>th</sup> May 2016 at EPA Headquarters and was attended by the IWMA secretariat as well as the following members: Padraig Thornton Waste Disposal Ltd, Oxigen Environmental Ltd, Country Clean Recycling Ltd, Panda Waste, AES (Ireland) Ltd, Clean (Irl) Refuse & Recycling Company Ltd and Greenstar.

Examinations have been made of the licences listed below, and recommended amendments have been drafted.

| <b>Reg. No.</b> | <b>Licensee</b>                                    | <b>Address of Installation</b>                                      | <b>Date of Submission</b> |
|-----------------|--|---|---------------------------|
| W0044-02        | Padraig Thornton Waste Disposal Limited            | Thorntons Recycling Centre, Killeen Road, Ballyfermot, Dublin 10.   | 13 <sup>th</sup> May 2016 |
| W0045-01        | Key Waste Management Limited                       | Greenhills Rd, Walkinstown, Dublin 12.                              | -                         |
| W0053-03        | Starrus Eco Holdings Limited                       | Bray Depot, Fassaroe, Bray, County Wicklow.                         | 10 <sup>th</sup> May 2016 |
| W0058-01        | Starrus Eco Holdings Limited                       | Deepwater Quay, Sligo, Co.  | 10 <sup>th</sup> May 2016 |
| W0082-03        | Starrus Eco Holdings Limited                       | Ballykeefe, Dock Road, Limerick.                                    | 10 <sup>th</sup> May 2016 |
| W0104-03        | Advanced Environmental Solutions (Ireland) Limited | Cappancur Industrial Estate, Cappancur, Tullamore, County Offaly.   | -                         |
| W0106-02        | Brúscar Bhearna Teoranta                           | Carrowbrowne, Headford Road, Galway.                                | -                         |
| W0131-02        | Midland Waste Disposal Company Limited             | Clonmagaddan, Proudstown, Navan, County Meath.                      | -                         |
| W0136-03        | Starrus Eco Holdings Limited                       | Sarsfieldcourt Industrial Estate, Sarsfieldcourt, Glanmire, Cork.   | 10 <sup>th</sup> May 2016 |
| W0144-01        | Oxigen Environmental Limited                       | Coes Road, Dundalk, County Louth.                                   | 13 <sup>th</sup> May 2016 |
| W0152-03        | Oxygen Environmental Limited                       | Robinhood Industrial Estate, Robinhood Road, Ballymount, Dublin 22. | 13 <sup>th</sup> May 2016 |
| W0158-01        | Ray Whelan Limited                                 | Waste Services, Cappanaboe, County Laois.                           | -                         |

|          |   |  |                           |
|----------|---|--|---------------------------|
| W0169-01 | Mulleady's Limited  | Cloonagh, Drumlish, County Longford.   | -                         |
| W0183-01 | Starrus Eco Holdings Limited  | Millenium Business Park, Grange, Ballycoolin, Dublin 11                                      | 10 <sup>th</sup> May 2016 |
| W0194-02 | Advanced Environmental Solutions (Ireland) Limited                    | Kyletalesha Waste Transfer Facility, Kyletalesha & Kyleclonhobert, Portlaoise, County Laois. | -                         |
| W0205-01 | Greyhound Recycling and Recovery Limited                              | Crag Avenue, Clondalkin Industrial Estate, Clondalkin, County Dublin.                        | -                         |
| W0206-01 | Padraig Thornton Waste Disposal Limited                               | Dunboyne Industrial Estate, Dunboyne, County Meath.  | 13 <sup>th</sup> May 2016 |
| W0208-01 | Oxigen Environmental Limited  | Ballymount Industrial Estate, Ballymount Road Lower, Clondalkin, Dublin 22.                  | 13 <sup>th</sup> May 2016 |
| W0217-01 | Killarney Waste Disposal Limited                                      | Aughacureen, Killarney, County Kerry.  | -                         |
| W0227-01 | Lawlor Brothers (Waste Disposal) Limited, trading as Access Skip Hire | Unit 28 John F. Kennedy Road, JFK Industrial Estate, Naas Road, Dublin 12.                   | -                         |
| W0249-01 | Acorn Recycling Limited   | Ballybeg Composting Facility, Ballybeg, Littleton, County Tipperary.                         | -                         |
| W0253-01 | Clean (Irl) Refuse & Recycling Company Limited                        | Ballinagun West, Cree, County Clare.   | 16 <sup>th</sup> May 2016 |
| W0257-01 | Country Clean Recycling Limited                                       | Churchfield Industrial Estate, John F. Connolly Road, County Cork.                           | 13 <sup>th</sup> May 2016 |

For the most part the submissions received were similar in nature albeit with different issues raised in some submissions. Therefore, while the submissions have been considered individually, for the purpose of this report the issues raised will be addressed together.

**1. Condition <<X.1.1>> (Wrapping of baled municipal waste)**

*The wrapping of baled municipal waste, RDF, SRF, and other waste shall be carried out in such a manner that:*

- *the waste is fully enclosed by the wrap;*
- *the emission of odour from the wrapped bale is prevented;*
- *access by vermin is prevented; and*
- *the discharge of leachate or other liquids from the wrapped bale is prevented.*

A number of submissions were made in relation to this condition. Licensees felt that the requirement to ensure that "access by vermin is prevented" was not achievable and should be amended. In addition, licensees considered that "emission of odours from the wrapped bale" could be minimised but could not be prevented. An amendment to this part of the condition was requested. Furthermore, licensees believed that the "discharge of leachate or other liquids from the wrapped bale" could not be prevented but that the leachate could be collected and controlled through adequate infrastructure.

The Environmental Licensing Programme has considered these requests. In the case of preventing access by vermin it is acknowledged that this may be a difficult task but every effort should be made by the licensee to ensure that adequate controls are in place and in accordance with existing licence conditions. With regard to the prevention of emissions of odours from the wrapped bale, licensees can put a number of practices in place to ensure that odours do not emanate from wrapped bales of waste. Localised odours cannot always be prevented however and amendment of the condition is proposed to ensure the emission of odour *nuisance* is prevented. Furthermore, the discharge of leachate or other liquids from the wrapped bale can be prevented and not least through thorough and complete wrapping of the waste. Bales of waste will be transported in vehicles and vessels and stored at locations that might not have suitable infrastructure to capture and treat leachate. Thus it is essential that bales are manufactured to the highest possible standard. It is recommended that the Condition should be amended to read as follows:

***Amended Condition <<X.1.1>>***

*The wrapping of baled municipal waste, RDF, SRF, and other waste shall be carried out in such a manner that:*

- *the waste is fully enclosed by the wrap;*
- *the emission of odour nuisance from the wrapped bale is prevented;*

- *access by vermin is appropriately controlled and minimised; and*
- *the discharge of leachate or other liquids from the wrapped bale is prevented.*

## **2. Condition <<X.1.2>>**

*Bales of waste shall be dispatched from the installation in order of the date of first production of the bale, as labelled in accordance with Condition <<Y.1.6>>, unless otherwise agreed with the Agency.*

Licensees raised concerns about the practicality of the requirements of this condition and are concerned with its implications. The reality, as presented by the licensees, is that operators will stockpile bales and then at some point start moving them to dockside for export. The newest bales will necessarily be at the front of the stockpile and will be moved first. The bales at the back will be moved last, but they will be moved as part of the one shipment, and this is the important point. In response to the licensees' concerns, it is important to ensure that the oldest waste is removed promptly and is not left behind if the licensee has over-produced a shipment of waste and has moved the most easily accessed bales first. For this reason the condition should be maintained as above:

## **3. Condition <<X.1.4>>**

*The integrity of each wrapped bale shall be inspected fortnightly and prior to its dispatch from the installation. Any damaged bales (or those that do not meet the requirements of Condition <<X.1.1>> above) shall be repaired within 24 hours of damage being detected. No damaged bales shall be dispatched from the installation. Records of these checks and repairs shall be maintained at the installation.*

A number of submissions were made in relation to this condition. Licensees were concerned that the requirement to inspect all bales within a larger stockpile and to record all repairs was not practical. In response, it is acknowledged that it may be an impractical requirement to inspect all bales without causing further damage and it was not envisaged when drafting the condition that a licensee would be moving bales to inspect others. However clarity is required and therefore it is recommended that the condition be amended as follows:

*Stockpiles of wrapped bales and any accessible wrapped bales shall be inspected fortnightly. The integrity of each wrapped bale shall be inspected prior to its dispatch from the installation. Any damaged bales (or those that do not meet the requirements of Condition <<X.1.1>> above) shall be repaired within 24 hours of damage being detected. No damaged bales shall*

*be dispatched from the installation. Records of these checks and repairs shall be maintained at the installation.*

**4. Condition <<Y.1.1>> (Waste Storage Plan)**

*The licensee shall within six months of the date of this amendment, establish, maintain and implement a Waste Storage Plan for all waste stored at the installation.*

Licensees expressed concerns in relation to the timeline given to "establish, maintain and implement" a Waste Storage Plan at waste installations, and suggested that the Waste Storage Plan could be established within six months but that they would need further time to implement the plan, particularly where infrastructural works were required. In response, the reality will be that implementation of the plan, and indeed any plan, will commence upon its establishment and this should be understood by the wording of the condition. Operational changes should be introduced very quickly if not immediately upon establishment of the plan. Material changes may take longer and the plan, upon its establishment, should set out what will be done and when in order to ensure that the plan is implemented. Therefore no change is proposed.

In addition, having considered all of the time-bound conditions in the proposed amendments as a whole (see further discussion below in relation to timescales for preparation and implementation of a fire risk assessment), it is appropriate to move the schedule for establishing a Waste Storage Plan out to twelve months, rather than the originally proposed six months. OEE are agreeable to this change.

*The licensee shall, within twelve months of the date of this amendment, establish, maintain and implement a Waste Storage Plan for all waste stored at the installation.*

**5. Condition <<Y.1.4>>**

*The Waste Storage Plan shall incorporate:*

- *the recommendations of the Fire Risk Assessment required by Condition <<XX>> of this licence;*
- *a limit on the total quantity of waste to be stored at the installation at any one time;*
- *maximum stockpile sizes in designated storage areas including maximum volume, height, length, width and area, and minimum separation distances;*

- *a limit on the maximum storage or holding period for each type of waste in designated storage areas;*
- *limitations, as may be necessary, on waste storage arrangements to be used during warm weather to prevent odours arising;*
- *a drawing or plan of the location of each waste type and the means of storage for each waste type (e.g. as loose waste, baled, in sealed containers);*
- *details of the drainage system super-imposed on the above drawing or plan; and*
- *a designated fire quarantine area*

A number of submissions were made in relation to the requirements of this condition. In relation to "a limit on the total quantity of waste to be stored at the installation at any one time", licensees felt that this condition was overly restrictive and that it should be limited to putrescible waste only. In response, it is considered that this condition is necessary to protect against fire. Fire risk exists for many waste types (e.g. wood, mixed dry recyclables, tyres, plastics) that might be stockpiled at a facility and not just putrescible waste. Therefore, it is recommended that no change is made to the condition in this regard.

Submissions were also received in relation to the "limitations, as may be necessary, on waste storage arrangements to be used during warm weather to prevent odours arising", where licensees expressed concern about the practicality of "preventing odours arising". The Office of Environmental Enforcement (OEE) were consulted with regards to these submissions and suggested that the condition be suitably amended to insert "prevention of odour nuisance" and suggested that the reference to the weather conditions should be removed. It was agreed that odour nuisance should be prevented at all times, regardless of the weather.

A number of licensees also requested that the Agency clarifies what the designated fire quarantine area is to comprise and what the area is to be used for. This concern was noted and the wording of the condition has been amended to provide more clarification on what is meant by a designated fire quarantine area.

In addition, licensees suggested that the Waste Storage Plan should also be required to contain a Contingency Plan for "emergency situations". This submission was considered but it is not necessary to include this requirement in the licence condition. The licensee is not restricted to the items required by the condition and is welcome to factor in a contingency plan where it is deemed necessary.

Therefore, following all submissions made in relation to this condition, it is proposed that the condition is amended to read as follows:

**Condition <<Y.1.4>>**

*The Waste Storage Plan shall incorporate:*

- *the recommendations of the Fire Risk Assessment required by Condition <<XX>> of this licence;*
- *a limit on the total quantity of waste to be stored at the installation at any one time;*
- *maximum stockpile sizes in designated storage areas including maximum volume, height, length, width and area, and minimum separation distances;*
- *a limit on the maximum storage or holding period for each type of waste in designated storage areas;*
- *limitations, as may be necessary, on waste storage arrangements to be used to prevent odour nuisance;*
- *a drawing or plan of the location of each waste type and the means of storage for each waste type (e.g. as loose waste, baled, in sealed containers);*
- *details of the drainage system super-imposed on the above drawing or plan; and*
- *a designated fire quarantine area that is:*
  - *available at all times to aid separation and management of wastes during a fire incident; and*
  - *is different to the quarantine area set aside for unacceptable wastes.*

**6. Condition <<Y.1.5>>**

*Waste storage practices at the installation shall comply with the Waste Storage Plan at all times.*

A number of licensees raised concerns about this condition. Licensees considered that the waste storage plan is a plan for typical conditions only and that in certain "atypical" instances, e.g. a market crash, additional waste may need to be held on site. The submissions were noted and it was considered that contingency for "atypical conditions" should be examined by the licensee and form part of the waste storage plan for the site. Thus it is recommended that the condition remains as detailed above.

**7. Condition <<Y.1.6>>**

*Where bales of waste are stored, the licensee shall maintain and implement a bale identity and tracking system. Each bale shall be labelled with:*



- its date of production;
- its content and LOW code; and
- the name of the facility and its licence register number (<<Reg. No.>>).

A number of submissions were made in relation to this condition, requesting that the condition should only be relevant to wrapped bales of RDF, SRF and municipal waste and not baled paper, cardboard, steel cans and other non-odour forming waste. While this is acknowledged it is deemed beneficial for enforcement and tracking purposes that each bale has a declaration, in the form of a label, of the information as set out in the condition in order to enable identification and, importantly, origin. Therefore it is recommended that the condition remains as detailed above.

#### **8. Condition <<Y.1.7>>**

*Waste accepted or generated at the installation shall be stored only in designated areas that have been identified in the Waste Storage Plan.*

Licensees made submissions to request that this condition should include any proposed amendments made by the Waste Storage Plan. These submissions were examined but it was not considered necessary to include wording as suggested. The Waste Storage Plan is required to be maintained as necessary and should not be considered by licensees to be a static document. Rather it should be amended by the licensee as needs be to reflect on-site practices and arrangements and should at all times ensure that these practices and arrangements, however they may change and evolve over time, comply with the conditions of the licence. Thus it is recommended that the condition remains as stated above.

#### **9. Condition <<Y.1.8>>**

*All designated areas for storage of waste shall be:*

- clearly labelled;
- appropriately segregated; and
- visibly or physically delineated by walls, dividers, painted lines or marks on the ground or other methods acceptable to the Agency.

A number of submissions were received in relation to the requirement to "visibly or physically" delineate areas for storage by "walls, dividers, painted lines or marks on the ground". Licensees expressed concern about the difficulty of maintaining marks on the ground due to the movement of traffic on site. Some licensees suggested that designated areas could be identified on a map and requested that amendments to the condition be made as required. It is considered that an amendment to the condition was not required due to the current inclusion of "or other methods

acceptable to the Agency". It remains a fact however that some sort of physical delineation of designated storages is desirable. The condition should be maintained as detailed above.

#### **10. Condition <<Z.1>> Accident Prevention and Emergency Response**

*The licensee shall arrange, within three months of the date of grant of this amendment and every three years thereafter or as directed by the Agency, for the completion, by an independent and appropriately qualified consultant, of a fire risk assessment for the facility. The assessment shall examine all relevant factors on site that impinge on fire risk and prevention. The assessment shall have regard to the EPA Guidance Note: Fire Safety at Non-Hazardous Waste Transfer Stations, 2013. Any recommendations in the fire risk assessment report shall be implemented by the licensee within six months of the date of this amendment.*

A large number of submissions were made in relation to this condition as follows;

- 1) licensees requested that the Technical Amendments are not issued until such time that EPA guidance on fire risk assessments is published,
- 2) licensees requested that the time period for implementation of the fire risk assessment be extended to 6 months; and;
- 3) licensees expressed concern about the obligation to employ an independent and appropriately qualified consultant, and felt that the completion of the assessment could be completed by a member of staff on site.

In response, it is believed that the completion of the risk assessments by an independent and appropriately qualified consultant is imperative to the completion of objective assessments. To allow time for procurement and completion of good assessments, it is recommended that the timeframe be extended to 6 months to allow for;

- 1.) the employment/instruction of an appropriately qualified person and thereafter the implementation of the assessment, and;
- 2.) the publication of the EPA guidance note.

To allow for implementation of the fire risk assessment report, an extended period of 12 months is proposed below.

Therefore, following all submissions made in relation to this condition and having consulted with OEE, it is proposed that the condition is amended to read as follows:

*The licensee shall arrange, within six months of the date of this amendment and every three years thereafter or as directed by the Agency, for the completion, by an independent and appropriately qualified consultant, of a fire risk assessment for the facility. The assessment shall examine all relevant factors on site that impinge on fire risk and prevention. The assessment shall have regard to the EPA Guidance Note: Fire Safety at Non-Hazardous Waste Transfer Stations, 2013 and the EPA Guidance on Fire Risk Assessment for Non-Hazardous Waste Facilities, 2016. Any recommendations in the fire risk assessment report shall be implemented by the licensee within twelve months of the date of this amendment.*

Finally, it should be noted that a small number of licensees proposed that all waste licences should be technically amended to add fire risk and waste storage conditions to their licences. A decision on this proposal is outside the scope of this project.

**Recommendation**

I recommend that the condition changes as outlined herein are completed and that the proposed licence amendments for the above named licences are issued.

Signed

A handwritten signature in cursive script, appearing to read "Marie Fay", is written over a horizontal line.

Marie Fay  
Inspector, ELP

The first part of the report is devoted to a description of the experimental apparatus and the method of measurement. The second part contains the results of the measurements and a discussion of the results. The third part is a summary of the work.

The results of the measurements show that the rate of reaction is proportional to the concentration of the reactants. This is in agreement with the law of mass action. The activation energy of the reaction is found to be 15 kcal/mole.

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