### WASTE ACCEPTANCE PROCEDURES

Waste acceptance procedures which are currently being implemented at the existing licensed recovery facility at Huntstown are provided under cover of this Attachment.

It is expected that these procedures will shortly be updated and revised, pending final agreement of the Agency on trigger limits for acceptance of soil waste intake to the licenced facility. The updated acceptance procedures will be implemented for all future soil waste recovery activity at the licenced facility at Huntstown.

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PAGE 1 of 1 DECEMBER 2021



# SOIL RECOVERY FACILITY, HUNTSTOWN, FINGLAS, DUBLIN 11 (WASTE LICENCE REF. W0277-03)

PROPOSED TRIGGER LEVELS FOR RELEVANT CONTAMINANTS AS PER CONDITION NO. 8.5.1 IN IN OF CONDITION NO. 8.5.1

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| 1   | INTRODUCTION  |
|-----|---|
| 1.1 | Huntstown Waste Recovery Facility   |
| 1.2 | Requirement for Trigger Levels for relevant contaminants in non-greenfield soil and stone 4 |
| 2   | TRIGGER LEVELS FOR RELEVANT CONTAMINANTS IN NON-GREENFIELD SOIL AND STONE .6                |
| 2.1 | Intake from Non-Greenfield Sites – Metals 6   |
| 2.2 | Intake from Non-Greenfield Sites – Organic Compounds 10                                     |
| 2.3 | Intake from Non-Greenfield Sites – Other  |
| 2.4 | Huntstown Trigger Limit Values14  |
| 2.5 | Transition to New Trigger Limit Values– Huntstown Domain                                    |

# **APPENDICES**

- eruse. APPENDIX A1 Profiles and Maps of Heavy Metals in Tellus Dublin Peri-Urban-Surge Study Area
- APPENDIX A2 Summary Assessment Report on Proposed Parameters for the Acceptance of Material into Huntstown Soli Recovery Facility
- Quantitative Risk Assessment to Inform Selection of Soil Waste Acceptance **APPENDIX B** Criteria at Huntstown Soil Recovery Facility Consent of copyright

# **1** INTRODUCTION

### **1.1 Huntstown Waste Recovery Facility**

The Environmental Protection Agency (hereinafter 'the Agency' or 'EPA') first issued a waste licence to Roadstone Ltd. (hereinafter 'Roadstone') in respect of a soil waste recovery facility at Huntstown North Quarry, Finglas, Dublin 11 in February 2015 (Ref. W0277-01). The licence principally provided for the recovery of up to 750,000 tonnes of soil and stone per annum to backfill and restore the former quarry.

An amended waste licence (Ref. No. W0277-02) issued in September 2017 on foot of a waste licence review application submitted in November 2016, provided for an increase in the annual rate of soil and stone waste intake to 1.5 million tonnes per annum. It also provided for an extension to the plan area of the facility to include the former West Quarry as well as an increase in the overall volume of soil and stone to be recovered at the facility.

The waste licence was further amended in October 2018 (Ref. No. W0277-03) on foot of a waste licence review application submitted in September 2017. That amendment provided for the relocation of construction and demolition (C&D) waste recovery activities to a dedicated, purpose built facility on a 5.2 hectare site in the north-eastern corner of the Huntstown Quarry complex and an increase in the permitted intake of construction and demolition waste to a maximum of 95,000 tonnes percannum. As of the time of writing, construction of this facility has yet to commence and there is currently no C&D waste intake to the licenced facility.

A number of pre-commencement submissions in respect of the soil recovery facility, including a Closure, Restoration and Aftercare Management Plan (CRAMP) and Environmental Liabilities Risk Assessment (ELRA) were submitted to the Agency following the award of the original waste licence. These submissions were approved by the Agency and the Financial Provisions required on foot of these were put in place by Roadstone during September 2015. Backfilling and soil recovery activity commenced at the facility in October 2015.

The current waste licence (Ref. W0277-03) provides for:

- Backfilling of up to 9,550,000 tonnes (approximately 5,025,000 m<sup>3</sup>) of waste materials, principally excess soil, stones and/or broken rock excavated on construction and development sites, to re-use in backfilling and restoring voids created by extraction of subsoil and/or bedrock at the North Quarry and West Quarry at Huntstown;
- (ii) Recovery of up to 95,000 tonnes of C&D waste per annum at a dedicated recovery facility in the north-eastern corner of the quarry complex;
- (iii) Separation of any non-inert C&D waste (principally metal, timber, PVC pipes and plastic) unintentionally imported to site;
- (iv) Transfer of any separated waste streams to a dedicated waste inspection and quarantine facility for temporary storage, pending inspection, testing and potential removal off-site to authorised waste disposal or recovery facilities;
- Stockpiling and storage of imported topsoil pending re-use as cover material during final phase of restoration;
- (vi) Progressive restoration of the backfilled void (including placement of cover soils and seeding) and return to a natural grassland habitat; and

(vii) Environmental monitoring of noise, dust, surface water and groundwater for the duration of the proposed site restoration works and for a short aftercare period.

The inert soil and stone to be used in the restoration of the application site will be imported from external construction work sites. These materials are most likely to be sourced from:

- (i) greenfield development sites (where there has been no significant disturbance or degradation of soil below the upper nutrient rich topsoil layer);
- development sites in previously developed (non-greenfield) urban areas, beneath a defined zone close to the present day ground surface which has been built up, disturbed or impacted by previous development or land use); and
- (iii) excavations of buried utilities (specifically stone / gravel / aggregate surround fill).

### **1.2** Requirement for Trigger Levels for relevant contaminants in nongreenfield soil and stone

Roadstone has been backfilling the quarry void(s) at Huntstown with uncontaminated soil and stone from both greenfield and non-greenfield sites in the wider Dublin area (generally within 50 km radius) since 2015.

This proposal has had regard to the following :

- the publication in late February 2020 of new guidance by the EPA<sup>1</sup> in respect of the setting of Waste Acceptance Criteria (WAC) at authorised soil recovery facilities in Ireland.
- (ii) Condition 8.5.1 of W0277-03, which states "The licensee shall, in a manner and format agreeable to the Agency, propose maximum concentrations and/or trigger levels for relevant contaminants in non-greenfield soil and stone proposed for acceptance and backfill at the facility. Non-compliant materials shall be dealt with in accordance with Condition 8.13.8 of this licence;

The newly published EPA guidance identifies geochemically appropriate thresholds limits / trigger levels for metals (expressed in mg/kg) across seven separate geochemical domains across Ireland, such that the location of the soil recovery facility and its underlying geology influences the maximum concentrations and/or trigger levels that should be applied to any soil and stone from a non-greenfield site that is imported to, and accepted for recovery at, an authorised facility. The guidance also sets more onerous trigger levels for organic compounds (such as mineral oil, PAH's, BTEX and PCB's) than applied heretofore, based principally on achievable detection limits in a laboratory setting.

The published guidance stipulates that there is no requirement for testing of greenfield soil and stone, unless directed by the EPA or Local Authority. Thus, the amended WAC will only apply to soil and stone from non-greenfield sites, where the potential risk of contamination is assessed as low.

Roadstone, as Licensee and facility operator, will comply with the conditions in respect of waste acceptance set out in the current waste licence. Roadstone wish to propose the following trigger levels for relevant contaminants in non-greenfield soil and stone applicable at the Huntstown facility, as required by Condition 8.5.1 of the licence.

<sup>&</sup>lt;sup>1</sup> Guidance on waste acceptance criteria at authorised soil recovery facilities, Environmental Protection Agency, Wexford, February 2020

In preparing these proposed trigger levels for relevant contaminants in non-greenfield soil and stone waste intake as per condition 8.5.1 of the waste licence, due regard has been given to the recently published EPA Guidance on waste acceptance criteria at authorised soil recovery facilities to setting acceptance values for heavy metals, as well as a risk based approach to the setting of values for Organic Compounds.

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# 2 TRIGGER LEVELS FOR RELEVANT CONTAMINANTS IN NON-GREENFIELD SOIL AND STONE

The soil trigger levels proposed by Roadstone for use at the Huntstown soil recovery facility (SRF) are presented in this section for the following parameters:

- Metals in soil and stone (including As, Cd, Cr, Cu, Hg, Ni, Pb, Zn);
- Total organic carbon in soil and stone;
- Total BTEX (benzene, toluene, ethylbenzene, xylenes) in soil and stone;
- Mineral oil in soil and stone;
- Polycyclic aromatic hydrocarbons (PAHs) in soil and stone;
- Polychlorinated Biphenyls (PCBs) in soil and stone;
- Asbestos fibres in soil and stone.

## 2.1 Intake from Non-Greenfield Sites – Metals

In the recently published EPA guidance document, the guideline trigger levels for eight selected heavy metals (i.e., Cr, Ni, Cu, Zn, As, Cd, Hg, and Pb) in soil waste intake to authorised SRFs are based on the 98th percentile values of the sub-population of the Teagasc National Soils Database (NSD) that applies to the geological domain in which the particular SRF is located.

The EPA guidance document indicates that the existing SRF at Huntstown is located within Geochemical Domain 2, which principally corresponds to Carboniferous limestones and related rocks. As such, the maximum concentrations and/or soil trigger levels for metals in any soil waste accepted at the facility is set at the 98<sup>th</sup> percentile level for metals in the soils occurring within that domain in the NSD.

The approach taken by the EPA assumes "that soil and stone of a similar geochemical nature to that in the vicinity of a particular SRF" can be accepted for recovery at that SRF with minimal risk to local geological receptors. The GSI's 'Geochemically Appropriate Levels for Soil Recovery Facilities' domain map viewer identifies the geological domain in which a particular facility is located and is intended to assist in establishing proposed maximum concentrations and/or trigger levels for soil waste intake.

Under the new WAC guidelines, a single heavy metal exceedance does not automatically trigger rejection of the sample unless :

- (i) more than three heavy metal concentrations exceed their respective trigger levels; or
- (ii) any one heavy metal concentration exceeds its trigger level by 50% (the "1.5 times rule").

There is natural chemical variation in geological materials in Ireland arising from different rock types and types of mineralisation. The GSI acknowledges that the setting of 'universal' guideline values for acceptance of materials into SRFs is likely to result in practical difficulties where materials contain locally naturally high levels of certain elements e.g. As, Cd, Pb and Zn.

As it is currently the only baseline soil geochemical survey that covers the whole of the Republic of Ireland, the GSI selected the Teagasc NSD as the reference dataset upon which to characterize the soil cover across the seven geochemical domains. However, it is notable there are relatively few datapoints from the Dublin area, and none from within the M50, in

the NSD. Those that are included are principally from rural parts of the county outside of the main urban area. The spatial resolution of the NSD is also very crude, with just 1 sample per 54 km<sup>2</sup>. The geochemical signature of the domains corresponding to geological terranes from across the country are represented by sub-populations of the NSD, and these have been projected onto those domains that occur across the Dublin area. The final domain map is a simplified classification scheme that seeks to establish some broad compatibility between soils and the underlying bedrock geology.

In the course of our study, we combined the Dublin Surge and Tellus Dublin Peri-Urban datasets for the purpose of examining the spatial distributions of the eight heavy metal concentrations across the Dublin area. The concentrations were interpolated from the combined dataset using ArcGIS 10.3.1 to develop contoured concentration maps of the eight heavy metals in the study area. The maps show the variable influences of geogenic and anthropogenic control across the Dublin area. The maps are presented in Appendix A1 and are accompanied by descriptive profiles of the heavy metals.

As previously noted, the Huntstown SRF lies in Domain 2, which corresponds to the geochemical signature of Carboniferous limestones that occur across the vast limestone terrane of the Irish Midlands. This terrane is insufficiently representative of the GDA, with its unique geochemical influences.

The natural catchment area of the existing Huntstown SRE extends across the GDA, within a radius of 50 km of Huntstown, and includes six of the seven mapped domains. The Irish Soil Geochemical Atlas (Fay et al. 2007), which is also based on the NSD, shows that within this area, the following metals are strongly elevated.

- (i) Zn (> 120 mg/kg) and Cd (>1.0 mg/kg) associated with impure limestones in central County Dublin and extending to south County Meath and northeast County Kildare;
- (ii) Pb (> 60 mg/kg) in south County Dublin and extending south into County Wicklow, along the subcrop of the beinster Granite;
- (iii) As (> 15 mg/kg) in east central County Dublin extending south to counties Wicklow and Wexford along the subcrop of Leinster Granite and Ordovician metasedimentary envelope;
- (iv) Hg (> 0.18 mg/kg) in north Dublin City and in central Wicklow associated with the Leinster Granite; and
- (v) Ni (i.e., > 37.5 mg/kg Ni) and Cu (i.e., > 30.0 mg/kg Cu) associated with volcanicbearing meta-sediments covering north Dublin and much of the Northeast.

The NSD clearly indicates that the unique bedrock and Quaternary geological setting and geochemical character of soils that occur across the GDA are not adequately represented by the soils that occur across the Midlands limestone terrane.

Roadstone's large, soil testing database showed that approximately one quarter of soil samples from designated 'greenfield' sites and approximately one third from designated 'non-greenfield' sites from across the GDA, would be rejected on the basis of the EPA's proposed new WAC for SRFs within Domain 2. Although some atmospheric deposition of pollutants on greenfield sites is expected, the Roadstone dataset suggests that the potential anthropogenic influence on soil geochemistry is statistically less likely to determine whether soil from a source site will fail the proposed WAC than the underlying natural (geogenic) variation in soil geochemistry.

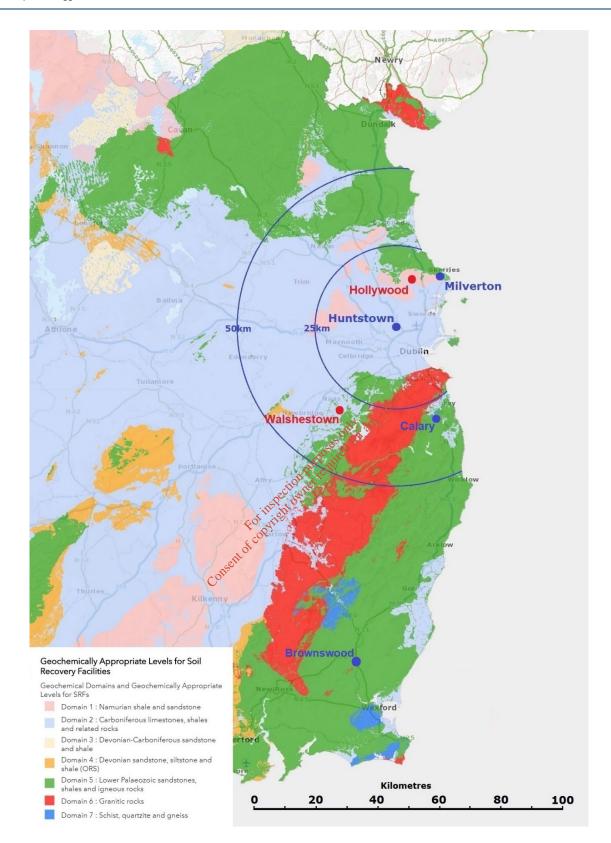
On examination, Domain 2 was found to be clearly unrepresentative of the material being excavated within the GDA and imported to the Huntstown SRF from across the GDA, from both greenfield and non-greenfield sites. It would appear that an overly restrictive regime of

trigger levels will ultimately require the development of a plethora of SRFs in every domain fragment that occurs locally across the State.

There are multiple geochemical domains within the natural catchment of the SRF at Huntstown. Large areas of Domains 1, 2, 5 and 6 exist, while there are minor enclaves of Domain 7 on Howth Head and Domain 4 near Swords and Donabate, all of which occur within 20 km of Huntstown. In the absence of SRFs in these other domains across north and west Dublin, the trigger levels at Huntstown must be set at levels that can accommodate material from development sites in other nearby domains, except Domains 4 and 7, which represent relatively insignificant amounts of the catchment (i.e., < 1% for area of each of these domain). Only Domain 3 does not occur within 50 km of the Huntstown SRF. It is therefore considered that heavy metal trigger levels appropriate to Huntstown should at least be set to that of the highest trigger levels within adjacent domains.

If a regime based on trigger levels is ultimately to be put in place, it is Roadstone's view that it must ultimately reflect the domains within the natural catchment of a given SRF—generally within a 50 km radius. The proposed heavy metal trigger levels at Huntstown based on domains within 50 km of Huntstown are given in Table 1 below. More details are provided in respect of the merits of Multiple Domains versus Domain 2 in Appendix A2.

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#### Figure 1 Map of Geochemical Domains

Location of Roadstone's SRFs at Huntstown, Milverton, Brownswood and Calary are shown in blue. Landfill and inert SRFs are also shown in red. Arcs corresponding to distances of 25 and 50 km from Huntstown SRF are also shown. *Modified from GSI (2020).* 

| Heavy Metal Trigger Levels of the Domains within GDA and Possible WAC |       |      |      |      |      |       |      |      |     |
|---|-------|------|------|------|------|-------|------|------|-----|
| Domains   | Area% | As   | Cd   | Cr   | Cu   | Hg    | Ni   | Pb   | Zn  |
| Domain 1  | 8.5   | 15.6 | 1.50 | 51.5 | 51.2 | 0.254 | 47.8 | 48.3 | 137 |
| Domain 2  | 54.9  | 24.9 | 3.28 | 50.3 | 63.5 | 0.360 | 61.9 | 86.1 | 197 |
| Domain 5  | 26.7  | 41.5 | 1.42 | 73.2 | 77.6 | 0.302 | 65.7 | 109  | 224 |
| Domain 6  | 9.0   | 85.8 | 2.38 | 54.0 | 40.0 | 0.527 | 28.2 | 108  | 168 |
| Proposed<br>Huntstown<br>Domain                                       | 100.0 | 85.8 | 3.28 | 73.2 | 77.6 | 0.527 | 65.7 | 109  | 224 |

 Table 1

 Heavy Metal Trigger Levels of the Domains within GDA and Possible WAC

Note: Domains 4 and 7 were omitted as their areal% were considered relatively insignificant (c. < 1% for area of each of these domains). Area% refers to areal footprints of domains within a 50km radius around Huntstown, as determined by image analysis using Fiji ImageJ software.

Rejection for heavy metals is triggered when three or more heavy metal concentrations exceed their respective trigger levels, or any one heavy metal concentration exceeds its trigger level by 50% (the '1.5 times rule'). Trigger levels in mg/kg.

# 2.2 Intake from Non-Greenfield Sites – Organic Compounds

The EPA guidance document on waste acceptance, criteria at soil recovery facilities adopts a precautionary approach when setting trigger texels for soil waste intake and in essence sets them at the minimum detection limits commonly reported by environmental testing laboratories.

In operating the existing soil recovery facility at Huntstown for over 5 years and having applied soil waste intake criteria for organic compounds in accordance with the inert waste limit values as per previous submission with respect to trigger levels (LR033958), Roadstone has identified no impact from soil recovery activities over that period on concentrations of organic compounds in groundwater samples from monitoring wells or in surface water discharge collected from the sump on the quarry floor and discharged off-site.

Roadstone's large, soil testing database showed that soils tested at greenfield sites (which had not previously been developed) had small traces of some organic compounds, principally EPH / mineral oil and PAHs, and little or no traces of BTEX and PCBs. This indicates that in the GDA at least, there are organic compounds at detectable, albeit low, concentrations in undisturbed 'natural' soils and that it would be overly onerous to set trigger levels at detection limits for soils in a greenfield setting, let alone in a non-greenfield situation.

It should be recognised that both EPH and PAH can occur naturally and are also by-products of modern, intensive agricultural practices. Most of the surface land area of Ireland comprises either farmland (65%), forest (11%) or urban land (2%), with the result that less than 22% of the overall land area is likely unspoilt / undisturbed land with natural soils and/or vegetation. Most of this virgin land is peatland, wetland or mountainous and is thus unsuitable for development. Therefore, the vast majority of development sites correspond to non-virgin, urban or agricultural land. The Dublin Metropolitan Area contains little unspoilt / undisturbed land that is unaffected by mechanised agricultural practices. As such, it is considered self-evident that some allowance must be made for the presence of trace PAH and EPH in setting trigger levels for soil waste intake.

EPH can be generated by modern mechanised agricultural practices, which involve the use of diesel powered machinery such as tractors, front-end loaders, harvesters, jeeps, etc. Also, setting the PAH trigger levels at essentially the limit of detection takes no account of PAH generated by both natural processes and agricultural activity, and could potentially negate any greenfield site in the State from generating soil for use as backfill at an authorised SRF.

It is noted that while the EPA applies the "1.5 times rule" to moderate rates of rejection of heavy metals, it does not apply it to organic compounds. This approach evokes what Livermore & Revesz (2014)<sup>2</sup> refer to as the "stopping-point problem". These authors note that many pollutants, particularly non-threshold pollutants such as most carcinogens, lack ambient concentrations below which there is no risk of adverse health impacts. Complete elimination of health risks from these pollutants can only be achieved by an outright ban. However, zero tolerance imposes excessive costs and dislocation, such that the EPA must set an acceptable, non-zero level of risk.

If the sole consideration is protection of public health, the EPA can only justify non-zero trigger levels on the basis that such pollutants occur naturally in the environment. Considerate of this, and to moderate rates of rejection, the EPA has applied the "1.5 times rule" in its recent guidance document to the eight heavy metals, several of which are classified as Group 1 carcinogens (i.e., As, Cd, Cr<sup>6+</sup> and Ni) (Mulware 2013)<sup>3</sup>. Logically, in view of its application to heavy metals, the "1.5 times rule" should also be extended to both PAH and EPH, which are known to occur naturally and as by-products of intensive agricultural practices.

In light of the above and of Roadstone's experience applying trigger levels as per previous submission (LR033958) for organic components in the soil waste intake to the Huntstown facility since it opened in 2015, the company considers that there is scope to apply less onerous intake criteria in respect of organic compounds on the basis of a risk-based approach that is informed by an extensive database of background water quality test results and a detailed understanding of the geological and hydrogeological environments that occur locally at Huntstown.

To that end, Roadstone commissioned SLR Consulting Ireland to undertake a detailed quantitative risk assessment to inform the selection of soil waste acceptance limits for the Huntstown facility, which would ensure that there is no unacceptable deterioration in local water quality or to the status of the surrounding groundwater body. Adopting:

- a compliance point immediately adjacent to the waste body for hazardous substances and at the down-gradient licensed site boundary for non-hazardous substances; and
- (ii) target concentrations for organic compounds at or below their respective Interim Guideline Values (IGV)<sup>4</sup>

for risk assessment purposes, indicates that soil waste intake values for most of the principal organic compounds can be safely set at the existing inert limits according to Council Decision 2003/33/EC, *except for* BTEX where a significantly reduced intake limit applies.

<sup>&</sup>lt;sup>2</sup> Rethinking Health-Based Environmental Standards. New York University Law Review, 89, 1184-1267

<sup>&</sup>lt;sup>3</sup> Trace elements and carcinogenicity: a subject in review. Biotech, 3. 85-96

<sup>&</sup>lt;sup>4</sup> Towards Setting Guideline Values for The Protection of Groundwater in Ireland, Environmental Protection Agency, 2003

developed by SLR in conjunction with Roadstone and outlines potential trigger levels based on these initial model runs. These are equal to pre-existing IWAC limits (according to Council Decision 2003/33/EC) for most of the determinants reviewed.

Arising out of the risk assessment, the following trigger levels are indicated in Table 2 below for selected organic compounds in soil waste accepted for recovery at the existing facility at Huntstown.

#### Table 2

#### Comparison of Limit Values for Organics from EPA Guidance / SLR Risk Assessment

| Component                          | EPA Guideline Value<br>mg/kg | Risk Assessed Limit Value<br>(95 <sup>th</sup> Percentile)<br>mg/kg |
|------------------------------------|------------------------------|---|
| Total Organic Carbon               | 30,000 (3%)                  | 30,000 (3%)   |
| BTEX*                              | 0.05                         | چ <sup>.</sup> 0.22   |
| PCBs**                             | 0.05                         | thet 1  |
| Mineral Oil                        | 50 South and                 | 500   |
| Polyaromatic<br>Hydrocarbons (PAH) | 1 putpose required           | 100   |

\* Benzene, Toluene, Ethylbenzene and Xylenes

\*\* Polychlorinated Biphenyls

Form Notwithstanding the degree of conservatism inherent in the risk assessment undertaken and recognising the concern to establish some regulatory demarcation between soil waste intake limits for a soil recovery facility as against a lined disposal facility, Roadstone is proposing to reduce the trigger levels established by the risk assessment for PCB's, Mineral Oil and PAH's further, and to apply the following limits indicated in Table 3 below to future waste intake at Huntstown.

| roposed Emile Values for organics for rutare Waste marke to manisterin shi |                              |   |  |  |  |
|--|------------------------------|---|--|--|--|
| Component  | EPA Guideline Value<br>mg/kg | Proposed Soil Intake<br>Limit Value*<br>mg/kg |  |  |  |
| Total Organic Carbon   | 30,000 (3%)                  | 30,000 (3%)                                   |  |  |  |
| BTEX**   | 0.05                         | 0.2   |  |  |  |
| PCBs***  | 0.05                         | 0.2   |  |  |  |
| Mineral Oil  | 50                           | 200   |  |  |  |
| Polyaromatic<br>Hydrocarbons (PAH)   | 1                            | 20  |  |  |  |

Table 3Proposed Limit Values for Organics for Future Waste Intake to Huntstown SRF

\* Proposed that '1.5 times rule' is also applied to Organic Compounds

\*\* Benzene, Toluene, Ethylbenzene and Xylenes

\*\*\* Polychlorinated Biphenyls

For greenfield sites, only soil and stone that has less than 2% contamination with materials of anthropogenic or non-natural origin (such as rubble, concrete, bricks, metal etc.) will be accepted at this facility, as per Table A.2 of Schedule A of the current waste licence.

Once Roadstone is satisfied on the basis of the information provided to it that the soil wastes to be imported to the facility are compliant with the above indicated trigger levels, it shall issue approval to the waste producer / collector allowing the waste to be forwarded to and recovered at its Huntstown facility.

# 2.3 Intake from Non-Greenfield Sites – Other

As is the case at licensed inert waste landfills, which are not licensed to accept materials that could potentially generate landfill gas, the WAC for total organic carbon (TOC) is 3% by weight or 30,000 mg/kg.

Asbestos fibres should not be present in soil and stone accepted at SRFs, and thus the trigger level for asbestos in soil and stone is "No Asbestos Detected", as determined in an accredited laboratory.

### 2.4 Huntstown Trigger Levels

The trigger levels proposed by Roadstone for relevant contaminants in non-greenfield soil and stone for use as backfill at the Huntstown SRF are summarised in Table 4.

| Trigger Levels for the Proposed Huntstown Domain |                           |  |
|--|---------------------------|--|
| Determinand                                      | Trigger Level*<br>(mg/kg) |  |
| As   | 85.8                      |  |
| Cd   | 3.28                      |  |
| Cr   | 73.2                      |  |
| Cu   | 77.6                      |  |
| Hg   | 0.527                     |  |
| Ni   | 65.7                      |  |
| Pb   | 10 <sup>91</sup>          |  |
| Zn   | only and 224              |  |
| Total Organic Carbon                             | 100 ered 30,000 (3%)      |  |
| BTEX**   | 5. <sup>rott</sup> 0.2    |  |
| PCBs*** inspection                               | 0.2                       |  |
| Mineral  | 200                       |  |
| Polyaromatic<br>Hydrocarbons (PAH)               | 20                        |  |

 Table 4

 Trigger Levels for the Proposed Huntstown Domain

Note. \* Proposed that rejection for all contaminants, except organic carbon, is triggered when three or more contaminant concentrations exceed their respective trigger levels, or any one contaminant exceeds its trigger level by 50% (the '1.5 times rule').

\*\* Benzene, Toluene, Ethylbenzene and Xylenes

\*\*\* Polychlorinated Biphenyls

### 2.5 Transition to New Trigger Limit Values– Huntstown Domain

Roadstone has hitherto been accepting non-greenfield inert soil and stone for recovery at the Huntstown SRF in compliance with previous submission with respect to trigger levels (LR033958). Transitional arrangements need to be agreed with respect to phasing-in compliance with proposed trigger levels given in Table 4. All new contracts will be subject to compliance with proposed trigger levels commencing 6 weeks from the date of submission of this proposal. Existing contracts will continue to be accepted under the current intake process.

The proposed intake trigger levels will become applicable to all new sites/customers/contracts upon agreement with the EPA on this submission.





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Mr. Cathal Gahan Environmental Protection Agency, Johnstown Castle, Wexford, Y35 W821.

24<sup>th</sup> September 2020

#### Licence Ref: W0277-03 Soil & Stone Acceptance Criteria

Dear Cathal,

To follow up on our Teams meeting on Friday September 18<sup>th</sup> 2020, Roadstone wish to confirm the following:

- All new contracts for incoming materials to the Huntstown Soil Recovery facility from Monday 21 September 2020 will be assessed against the Roadstone proposal LR050879.
- All new contracts for incoming materials to the Huntstown Soil Recovery facility from Monday 21 September 2020 will be assessed on the basis of dry weigh analysis not leachate analysis.
- All existing contracts/sites to transition to dry weigh analysis and the Roadstone proposed proposal referenced LR050878 from January 2021 onwards.
- These acceptance procedures will remain in place for the Huntstown soil recovery facility for incoming materials from all sites until final agreement is reached with the EPA OEE.
- Roadstone will carry out detailed trial pitting analysis to be performed at our Huntstown facility to identify background concentrations of elements listed in the 2020 Guidance on waste acceptance at authorised SRF, published in February 2020, to include elemental analysis of soils, subsoils and bedrock at our Huntstown Quarry site, presenting our findings at the earliest stage possible.
- Roadstone will engage with the EPA with the submission of additional information for the proposal referenced LR050879, advising on the PQRA and the basis of the proposed levels of organic compounds.

I trust you will find the above to your satisfaction and we look forward to hearing from you in due course.

If you require any additional information regarding this matter please contact the undersigned.

Yours sincerely

<u>Leonard Grogan</u>

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