

Waste Water Incidents

Guidance for Irish Water on the types of incidents that should be reported to the EPA

Definition: The following shall constitute an incident for the purpose of the licence or certificate:

- Any discharge that does not comply with the requirements of this licence.¹
- Any incident with the potential for environmental contamination of surface water or groundwater, or posing an environmental threat to land, or requiring an emergency response by the relevant Water Services Authority.

Appendix 1 provides guidance to assist Irish Water classifying incidents based on environmental impact² and should be used as the basis for assessing an incident. Details of how the impact has been assessed should be included as part of the incident notification. The following should also be considered as part of the assessment:

- The effects on water quality
- The potential for damage to an ecosystem (e.g. impact on fish population)
- Any requirement for notification or closure of potable water extractors
- The potential reduction in amenity value
- The potential for damage to agriculture or commerce
- The broader impact on public health
- The remedial action necessary
- The likely timescale of short term and longer term environmental consequences
- The environmental consequences of likely response action
- Any injury or loss of life caused by the incident

The following are examples of issues that should be reported to the EPA as incidents:

1. Emission Limit Value exceedances (having regard to the interpretation condition in the licence).³
Condition 2 provides an upper value above which any one result is a reportable incident e.g. Total Nitrogen; No individual result similarly calculated shall exceed the emission limit value by more than 20%

¹ Note that in the case of Certificates of Authorisation this does not apply

² The environmental impact scale used in Appendix 1 is the same as that used in the National Framework for Major Emergency Management (MEM)

³ Note that in the case of Certificates of Authorisation this does not apply

Condition 2 & Schedule A4 specify the maximum number of allowable samples where the result is above the emission limit value specified in Schedule A and below the upper value specified for the specific parameter that is allowed for the discharge to be deemed compliant. Typically this assessment is carried out annually and should be provided in the AER as an overall assessment of compliance for the previous year. This assessment should be based on the number of samples actually taken during the year⁴. Best practice is to track samples during the year to ensure that (i) the required number of samples are taken and (ii) if required, to facilitate taking additional samples to demonstrate compliance with Schedule A4; Interpretation of Discharge Monitoring Results.

2. Any discharge from the plant or agglomeration (i.e. sewer network and pumping stations) with the potential for environmental pollution as defined in the Waste Water Discharge (Authorisation) Regulations 2007 which is as follows;

environmental pollution” means, in relation to waste water discharges, the direct or indirect introduction, as a result of human activity, of waste water discharges, substances (including any explosive, liquid or gas) or polluting matter (including any poisonous or noxious matter) into waters which may endanger human health or harm the aquatic environment, and in particular—

create a risk to waters, sediment, plants or animals,

deleteriously interfere with the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems including by—

rendering those or any other waters poisonous or injurious to fish, shellfish, spawning grounds or the food of any fish, or

(ii) impairing the usefulness of the bed and soil of any waters as spawning grounds or impairing their capacity to produce the food of fish or shellfish,

(c) impair or interfere with amenities and other legitimate uses of the water, or

(d) result in the water failing to meet any environmental quality standards prescribed in regulations for the purpose of giving effect to the requirements of any Directive relating to the quality or use of water for the time being in force.

3. Emergency overflows from pumping stations. For example those caused by pump failures or blockages as these are overflows that are not related to storm or rainfall events.
4. Spills from the plant or network to receiving waters that cause or are likely to cause environmental pollution.
5. Burst or blocked sewers that cause environmental pollution or the potential for environmental contamination of surface water or groundwater, or posing an environmental threat or requiring an emergency response by the relevant water service authority.
6. Breakdown of critical plant and equipment with the potential for environmental pollution, contamination, posing an environmental threat or requiring an emergency response by the relevant water services authority.
7. Screens that are not operating or maintained and allow sewage debris to enter receiving waters.

⁴ Note 1 of Schedule A4; Interpretation of Discharge Monitoring Results in each WWDL states; *Where the licensee has taken samples which exceed the number specified in this Schedule, the licensee shall submit to the Agency all results of analysis.*

8. Storm water overflows should be reported as incidents where there is the potential for environmental pollution (see point 2 above) or contamination (e.g. upstream of an drinking water abstraction point), where it poses an environmental threat (e.g. impacts on an amenity area) or requires an emergency response by the relevant water service authority (e.g. clean up of beach or riverbank required).
9. Discharges that are operating after the date they should have ceased as specified in the licence are considered unauthorised discharges and should be reported as an incident.
10. Where licence specified improvement works are not completed as specified in Schedule C they should be reported as an incident where the resultant discharge is causing environmental pollution in the receiving waters.
11. Where discharges from a CoA site with secondary treatment exceed the 25/35/125 mg/l limits set for BOD/TSS/COD in the Urban Waste Water Treatment Regulations (having regard to the interpretation given in section 4 of the Fifth schedule) this should be treated as an incident.
12. Discharges from treatment plants with less than secondary treatment are unlikely to meet the limits in the Waste Water Treatment Regulations. Where discharges from a CoA site without secondary treatment exceed the limits set in the Regulations this need not be treated as an incident, unless the discharge causes environmental pollution.
13. Note, that in certain circumstances there may be on-going and possibly daily or weekly incidents at licensed works, for example on-going ELV exceedances where a plant upgrade is required. If a particular issue is recurring/ongoing/continuous the issue should be notified once as an incident (through EDEN) and this incident notification report should be updated until such time as the issue is resolved. This is provided the likely cause of the incident remains the same.

Appendix 1: Incident Categories and assessment of impact.

Ranking	Classification	Impact on the environment	Tools used to assess and confirm impact.
1	Minor	<p>No contamination, localised effects Simple once off ELV breaches that do not have an impact on water quality</p>	<ul style="list-style-type: none"> • None the licensee concludes no impact based on knowledge of the assimilative capacity of the receiving water. • The licensee calculates the mass loading to the receiving water based on the details of the elv exceedance (i.e. concentration, duration, flow rate of emission and receiving water) and compares to relevant water standards for the receiving water. • Visual inspection.
2	Limited	<p>Simple contamination, localised effects of short duration Local limited impact to water Notification to and short term closure of potable water extractors required</p>	<ul style="list-style-type: none"> • None the licensee concludes no significant impact based on knowledge of the assimilative capacity of the receiving water. • The licensee calculates the mass loading to the receiving water based on the details of the elv exceedance (i.e. concentration, duration, flow rate of emission and receiving water) and compares to relevant water standards for the receiving water. • Visual inspection. • In some cases the licensee may need to conduct U/S and D/S physiochemical monitoring while the incident is taking place and compares to relevant water standards for the receiving water to quantify impact. • In some cases the licensee may need to conduct U/S and D/S biological (including microbiological) monitoring after the incident and compare to relevant water standards for the receiving water to quantify impact.

Ranking	Classification	Impact on the environment	Tools used to assess and confirm impact.
3	Serious	<p>Simple contamination, widespread effects of extended duration</p> <p>Significant effects on water quality Major damage to an ecosystem (e.g. significant impact on fish population) Longer term closure of potable water extractors Significant reduction in amenity value Significant damage to agriculture or commerce Significant impact on man</p>	<ul style="list-style-type: none"> • The licensee conducts U/S and D/S physiochemical monitoring while the incident is taking place and compares to relevant water standards for the receiving water to quantify impact. • The licensee conducts U/S and D/S biological monitoring after the incident and compares to relevant water standards for the receiving water to quantify impact. • The licensee conducts U/S and D/S microbiological monitoring after the incident and compares to relevant water standards for the receiving water to quantify impact. • The licensee confirms that impact from the incident on has ceased / is below certain level before the water is used again for abstraction / amenity use.
4	Very Serious	<p>Heavy contamination, localised effects of extended duration</p>	<ul style="list-style-type: none"> • The licensee conducts U/S and D/S physiochemical monitoring while the incident is taking place and compares to relevant water standards for the receiving water to quantify impact. • The licensee conducts U/S and D/S biological monitoring after the incident and compares to relevant water standards for the receiving water to quantify impact. • The licensee confirms that impact from the incident on has ceased / is below certain level before the water is used again for abstraction / amenity use.
5	Catastrophic	<p>Very heavy contamination, widespread effects of extended duration</p>	<ul style="list-style-type: none"> • The licensee conducts U/S and D/S physiochemical monitoring while the incident is taking place and compares to relevant water standards for the receiving water to quantify impact. • The licensee conducts U/S and D/S biological monitoring after the incident and compares to relevant water standards for the receiving water to quantify impact. • The licensee confirms that impact from the incident on has ceased / is below certain level before the water is used again for abstraction / amenity use.