
DRAFT SCOTTISH STATUTORY INSTRUMENTS

2024 No.

ENVIRONMENTAL PROTECTION

WASTE

WATER

**The Environmental Authorisations (Scotland) Amendment
Regulations 2024**

<i>Made</i>	- - - -	***
<i>Coming into force</i>	- -	***

The Scottish Ministers make the following Regulations in exercise of the powers conferred by sections 18 and 58 and schedule 2 of the Regulatory Reform (Scotland) Act 2014(a), and all other powers enabling them to do so.

In accordance with section 19 of the 2014 Act, the Scottish Ministers have consulted (a) the Scottish Environment Protection Agency and (b) such other persons as they thought fit, including such persons appearing to them to be representative of the interests of local government, industry, agriculture, fisheries or small businesses as they considered appropriate.

In accordance with section 58(4) of the 2014 Act, a draft of this instrument has been laid before and approved by resolution of the Scottish Parliament.

PART 1

General

Citation and commencement

1. These Regulations may be cited as the Environmental Authorisations (Scotland) Amendment Regulations 2024 and come into force on ****.

(a) 2014 asp 3. Section 18 was amended by S.S.I. 2019/436; section 16 makes provision relevant to the exercise of these powers.

Interpretation

2. In these Regulations—

“the 2013 Regulations” means the Water Environment (River Basin Management Planning: Further Provision) (Scotland) Regulations 2013(a),

“the 2018 Regulations” means the Environmental Authorisations (Scotland) Regulations 2018(b).

PART 2

Amendment of the 2018 Regulations

Amendment of the 2018 Regulations

3. The 2018 Regulations are amended in accordance with regulations 4 to 31.

Amendment of regulation 2(1)

4.—(1) In regulation 2(1) (interpretation), the following definitions are inserted—

(a) immediately before the definition of “authorise” insert—

““abstraction” means the doing of anything whereby any water is removed or diverted by mechanical means, pipe or any engineering structure or works from any part of the water environment, whether temporarily or permanently, including anything whereby the water is so removed or diverted for the purpose of being transferred to another part of the water environment, and includes—

- (a) the construction or extension of any well, borehole, water intake or other work by which water may be abstracted, and
- (b) the installation or modification of any machinery or apparatus by which additional quantities of water may be abstracted by means of a well, borehole, water intake or other work,

“asbestos” includes any of the following fibrous silicates—

- (a) actinolite,
- (b) amosite,
- (c) anthophyllite,
- (d) crysotile,
- (e) crocidolite,
- (f) tremolite,”

(b) after the definition of “authorised place” insert —

““broker” means any undertaking arranging the recovery or disposal of waste on behalf of others, including such brokers who do not take physical possession of the waste,”

(c) after the definition of “charging scheme” insert —

““coastal water” means water (other than groundwater) within the area extending landward from the 3 mile limit up to the limit of the highest tide or, where appropriate, the seaward limits of any bodies of transitional water, but does not include any water beyond the seaward limits of the territorial sea of the United Kingdom adjacent to Scotland,

(a) S.S.I. 2013/323 as amended by S.S.I. 2015/211, S.S.I. 2017/389, S.S.I. 2019/26.

(b) S.S.I. 2018/219 as amended by S.S.I. 2018/219.

“collection” means the gathering of waste, including the preliminary sorting and preliminary storage of waste for the purposes of transport to a waste treatment facility”

(d) after the definition of “consolidated authorisation” insert—

““dealer” means any undertaking which acts in the role of principal to purchase and subsequently sell waste, including such dealers who do not take physical possession of the waste,

“disposal” means any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy,”

(e) after the definition of “general binding rules” insert—

““groundwater” means water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil,

“groundwater hazardous substances” means substances which have been identified by SEPA in accordance with regulation 24A of the 2013 Regulations,

“harm to the water environment” means—

(a) harm to the health of human beings or other living organisms,

(b) harm to the quality of the water environment, including—

(i) harm to the quality of the water environment taken as a whole,

(ii) other impairment of, or interference with, the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems,

(c) offence to the senses of human beings,

(d) damage to property, or

(e) impairment of, or interference with, amenities or other legitimate uses of the water environment,”

“impounding works” means in relation to surface water—

(a) any dam, weir or other works by which water may be impounded,

(b) any works diverting the flow of water in connection with the construction or alteration of any dam, weir or other works falling within paragraph (a),

“inert waste” means waste which—

(a) does not undergo any significant physical, chemical or biological transformations,

(b) does not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm to human health, and

(c) has insignificant total leachability and pollutant content and ecotoxicity of its leachate are insignificant and, in particular, does not endanger the quality of any surface water or groundwater ”,

(f) after the definition of “inland water” insert—

““land” includes land covered by waters where the land is above the low water mark of ordinary spring tides,”

(g) after the definition of “radioactive substances activity”, insert—

““rated thermal input” means the rate at which fuel can be burned at the maximum continuous rating of the appliance multiplied by the net calorific value of the fuel expressed as megawatts thermal,

“recovery” means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy,”

(h) after the definition of “SEPA”, insert —

- “shellfish” includes crustaceans and molluscs of any kind, and includes any brood, ware, half-ware, spat or spawn of shellfish,
- (i) after the definition of “standard conditions”, insert—
- “storage” in relation to waste, includes the keeping, managing and depositing of waste,
- “substance” includes any chemical element and its compounds (including bacteria and other pathogens),
- “surface water” means inland water (other than groundwater), transitional water and coastal water,”
- (j) after the definition of “technical schedule”, insert—
- “the 3 Mile limit” means the limit consisting of a line every point of which is at a distance of 3 miles on the seaward side from the nearest point of the baseline from which the breadth of the territorial sea of the United Kingdom adjacent to Scotland is measured, and “miles” means international nautical miles of 1,852 metres,
- “the territorial sea of the United Kingdom adjacent to Scotland” has the same meaning as it has for the purposes of the Scotland Act 1998(a),
- “the water environment” means all surface water, groundwater and wetlands,
- “treatment” means recovery or disposal operations, including preparation prior to recovery or disposal,”
- (k) for the definition of “waste”, substitute—
- “waste” has the meaning given in section 75(2) of the Environmental Protection Act 1990(b) and read in accordance with section 75A,”
- (l) after the definition of “waste”, insert—
- “waste oil” means any mineral or synthetic lubrication or industrial oil which have become unfit for the use for which it was originally intended, such as used combustion engine oil and gearbox oil, lubricating oil, oil for turbines and hydraulic oils,
- “Waste Framework Directive” means Directive 2008/98/EC of the European Parliament and of the Council on waste(c).”
- “wetland” has the meaning given in section 3(5) of the Water Environment and Water Services (Scotland) Act 2003.”

Amendment of regulation 3

- 5.** In regulation 3 (interpretation: regulated activity)—
- (a) for paragraph (1) substitute—
- 3.—(1)** In these Regulations, “regulated activity” means—
- (a) a radioactive substances activity,
- (b) a water activity,
- (c) a waste management activity,
- (d) an industrial emissions activity,
- (e) an other emissions activity.”
- (b) after paragraph (2), insert—
- “(2A) Paragraph 2 does not apply to a person carrying on a water activity,

(a) 1998 c. 46.

(b) 1990 c. 43, section 75(2) was relevantly amended by, and section 75A was inserted by S.I. 2019/620.

(c) OJ L 312, 22.11.2008, p. 3, as last amended by Directive (EU) 2018/851.

(2B) In this regulation, “domestic activity” does not include the disposal or treatment of waste outwith the curtilage of the private dwelling or place of residence from which it arises,”

(c) after paragraph (3), insert—

“(4) where a person carries on an activity which meets the definitions of more than one of the regulated activities specified in paragraph (1)(a) – (f), that person carries on each of those regulated activities.”.

Amendment of regulation 4

6. For regulation 4 (interpretation: radioactive substances activity), substitute—

“Interpretation: regulated activities

4. In these Regulations—

“industrial emissions activity” means—

- (a) an activity listed in part 4 of schedule 20 (“Schedule 20 activities”),
- (b) operating a large combustion plant,
- (c) incineration and co-incineration of liquid and solid waste at a waste incineration or co-incineration plant,
- (d) organic solvent activities,
- (e) schedule 20 activities or organic solvent activities producing titanium dioxide,

“other emissions activity” means—

- (a) an activity listed in Part 3 of schedule 26,
- (b) operating a medium combustion plant,
- (c) a petrol vapour recovery activity,

“radioactive substances activity” means—

- (a) an activity involving either or both—
 - (i) radioactive material,
 - (ii) radioactive waste,

“waste management activity” means—

- (a) the storage, treatment (including sorting), recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites,
- (b) the collection and transport of waste on a professional basis,
- (c) acting as a dealer or broker,

in or on land, or in the vicinity of land when connected with a waste management activity taking place on land,

“water activity” means—

- (a) any activity liable to cause the direct or indirect introduction, as a result of human activity, of substances or heat into the water environment which may give rise to harm to the water environment,
- (b) abstraction of water from the water environment,
- (c) construction or alteration of impounding works in inland water (other than in groundwater) or wetland,
- (d) operation of impounding works in surface water or wetland,
- (e) carrying out building or engineering works, or works other than those referred to in paragraph (c) or (d)—
 - (i) in inland water (other than groundwater) or wetland, or

- (ii) in the vicinity of inland water (other than groundwater) or wetland and having or likely to have a significant adverse impact on the water environment,
- (f) artificial recharge or augmentation of groundwater,
- (g) the direct or indirect discharge, and any activity likely to cause a direct or indirect discharge, into groundwater of—
 - (i) any groundwater hazardous substance, or
 - (ii) any other substance or heat liable to cause harm to the water environment,
- (h) any other activity which directly or indirectly has or is likely to have a significant adverse impact on the water environment.

Amendment of regulation 5

7. In regulation 5 (interpretation: authorised person)—

- (a) in paragraph (2)(c), in the opening words, for “the” substitute “an”,
- (b) after paragraph (3), insert—
 - “(4) Where a person becomes an authorised person —
 - (a) as a result of the operation of paragraph (2),
 - (b) in respect of an activity which is carried on in accordance with a permit or a registration, and
 - (c) there is a regulatory notice, surrender notice or costs recovery notice in force in respect of that permit or registration,
 the duty to comply with the notice is transferred to that person.”.

Amendment of regulation 6

8.—(1) For regulation 6 (interpretation: technical schedule), substitute—

“Interpretation: technical schedules

- 6.—(1) The technical schedules are—
- (a) schedule 8 (radioactive substances activities),
 - (b) schedule 10 (water activities),
 - (c) schedule 11 (waste management activities),
 - (d) schedule 12 (hazardous waste activities),
 - (e) schedule 13 (landfill activities),
 - (f) schedule 14 (management of dry recyclable waste and operation of a materials facility),
 - (g) schedule 15 (management of end-of-life vehicles),
 - (h) schedule 16 (management of waste electrical and electronic equipment),
 - (i) schedule 17 (management of waste batteries),
 - (j) schedule 18 (waste to land activities),
 - (k) schedule 19 (industrial emissions activities),
 - (l) schedule 20 (schedule 20 emissions activities),
 - (m) schedule 21 (operating a large combustion plant),
 - (n) schedule 22 (incineration and co-incineration of solid and liquid waste at a waste incineration or co-incineration plant),
 - (o) schedule 23 (organic solvents activities),
 - (p) schedule 24 (titanium dioxide activities),

- (q) schedule 25 (energy efficiency requirements for specified activities),
- (r) schedule 26 (other emissions activities),
- (s) schedule 27 (operating a medium combustion plant),
- (t) schedule 28 (petrol vapour recovery activities),

(2) If a provision of the technical schedules is inconsistent with any other provisions of these Regulations, the provision in the technical schedule prevails to the extent of that inconsistency,

(3) Schedules 8, and 10–28 have effect.”.

Amendment of regulation 9

9. In regulation 9 (general aims), after paragraph (2), insert—

“(3) for the avoidance of doubt, in this regulation, “resources” includes energy and water.

Amendment of regulation 22

10. In regulation 22(3) (form and content of permits), in the opening words, after “granting”, insert “or varying”.

Amendment of regulation 24

11. In regulation 24 (review of permits)—

(1) re-number the existing provision as paragraph (1),

(2) after paragraph (1) as so re-numbered, insert—

“(2) Where SEPA carried out a review under paragraph (1), any fee payable under a charging scheme for that review is payable by the authorised person.”

Amendment of regulation 28

12. In regulation 28(1) (effect of transfer), for “permit being transferred”, substitute “registration or permit being transferred”.

Amendment of regulation 30

13. In regulation 30(c)(ii), after “registration”, insert “or permit”.

Amendment of regulation 31

14. For regulation 31 (revocation of permits and registrations), substitute—

“**31.**—(1) SEPA may at any time revoke (in whole or in part) a permit or registration by—

(a) serving a notice (a “revocation notice”) on the authorised person, or

(b) where paragraphs (2) or (3) apply—

(i) publishing a revocation notice on its website, and

(ii) sending a copy of the revocation notice to the last known address of the authorised person,

(2) this paragraph applies where the authorised person is a sole operator who has died and

(a) an executor has not been appointed to that person’s estate, or

(b) following the appointment of an executor, the estate has been wound up and the executor discharged,

(3) this paragraph applies where the authorised person is a body corporate that has been dissolved,

(4) in this regulation—

“dissolved” means dissolved under the law of Scotland, England and Wales, or Northern Ireland (whether or not by a process referred to as dissolution),

“wound up” means wound up under the law of Scotland, England and Wales or Northern Ireland.”

Amendment of regulation 33

15. In regulation 33, at the end, insert—

“(4) SEPA may include such conditions as it thinks fit in any standard conditions.”.

Amendment of regulation 38

16. In regulation 38 (register)—

(a) in paragraph (3), at the end, insert “unless otherwise specified in relation to a particular entry.”,

(b) after paragraph (4), insert—

“(5) Information contained in the register as to a permit or registration, the conditions of that permit or registration and whether it is in force or revoked is, in the absence of evidence to the contrary, proof in any proceedings of that permit or registration, the conditions of that permit or registration and whether it is in force or has been revoked.

(6) A certified extract from the register is admissible without further proof in evidence in any proceedings.

(7) In this regulation, “a certified extract” means a document certified to be a true extract from the register by any person having authority from SEPA to certify it.”.

Amendment of regulation 51

17. In regulation 51(2) (costs recovery notices)—

(a) in sub-paragraph (a), at the end, insert —

“or to whom the duty to comply with the notice has transferred as a result of regulation 28(2)”,

(b) in sub-paragraph (b), at the end, insert—

“or to whom the duty to comply with the notice has transferred as a result of regulation 29(5)”,

(c) in sub-paragraph (d), for “was served” to the end, substitute—

“or the person to whom a duty to comply with that notice has transferred under regulation 28(2) or 29(5) or the person who would have been served with the regulatory notice, surrender notice or revocation notice.”.

Amendment of regulation 52

18. In regulation 52(2) (payment requirements for costs recovery notices), for “penalty” substitute “notice.”

Amendment of regulation 54

19. In regulation 54—

(a) In sub-paragraph (2), at the end, insert—

“or, where sub-paragraph 2A applies, by being sent to the person using electronic communication.,

(2A) This sub-paragraph applies where, before the notice is served, SEPA and the person upon whom it is to be served agree in writing that the notice may be sent to the person by being transmitted to an agreed electronic address, and in an agreed electronic form.”

(b) After sub-paragraph (4), insert—

“(5) Where a document is served as mentioned in sub-paragraph (2) to a postal address in the United Kingdom or by electronic communication to an electronic address it is to be taken to have been received 48 hours after it is sent unless the contrary is shown.”

Amendment of regulation 55

20. In regulation 55(1) (appeals to Scottish Ministers) —

- (a) in sub-paragraph (e), before “under regulation 60” insert, “or has been treated as having notified an activity”,
- (b) in sub-paragraph (q), at the end, for “and” substitute “or”.

Amendment of regulation 57

21. In regulation 57(2) (effect of notices etc. during consideration of appeal), after sub-paragraph (f), insert—

“(g) an off-site condition under regulation 22(3)(b) by a person whose consent is required in order for the authorised person to comply with it, the appealed condition does not take effect until the day following the day on which—

- (i) the appeal is withdrawn, or
- (ii) the appeal is finally determined, and the condition is affirmed.”.

Amendment of regulation 59

22. For “schedule” wherever it appears, substitute “schedules”.

Amendment of regulation 60

23. In regulation 60 (power of SEPA to impose authorisations)—

- (1) in paragraph (3) for “or” substitute “and”
- (2) in paragraph (4), after (1), insert “(b) or (c)”
- (3) after paragraph (4), insert—

“(5) Where SEPA treats an activity in accordance with paragraph (1), the person or persons it considers to be in control of the carrying on of the activity are to be treated for the purposes of these Regulations as—

- (a) in relation to a permit or registration, the applicant,
- (b) in relation to a notification, the person who has made a notification in accordance with regulation 12(3).”.

Amendment of regulation 62

24. In regulation 62 (action by SEPA) —

- (a) in paragraph (3), at the end, insert “or to whom the notice or the duty to comply with the notice has transferred”,
- (b) in paragraph (4)(b), after “served” insert, “or to whom the notice or the duty to comply with the notice has transferred.”,

- (c) in paragraph (5)(a), after “notice”, insert “or to whom the duty to comply with a regulatory notice has transferred”,
- (d) in paragraph 5(b)—
 - (i) delete “or revocation”,
 - (ii) insert, at the end—
“or upon whom the duty to comply with a surrender notice has transferred,
(c) SEPA served a revocation notice, or to whom a revocation notice has transferred.”.

New regulation 62A

25. In Part 13 (duties and functions of SEPA), after regulation 62 (action by SEPA), insert—

“Examination and Investigation

62A. SEPA may carry out any examination and investigation it considers necessary to allow it to make a determination in respect of an application for an authorisation.”.

Amendment of regulation 63

- 26.** In regulation 63(6) (accelerated applications)—
- (a) in the opening words, delete “in so far as it is practicable to do so”,
 - (b) in paragraph (1)(b), after “initiated by SEPA”, insert “in relation to a permit”.

Amendment of regulation 64

27. In regulation 64 (consolidation of permits and registrations), after paragraph (9), insert—
“(9A) Where SEPA initiates and carries out a consolidation under paragraph (2) or (4), any fee payable under a charging scheme for that consolidation is payable by the authorised person.”.

Amendment of regulation 67

28. In regulation 67(2) (SEPA’s public participation statement), after sub-paragraph (c), insert—
“(c) paragraph 1A of schedule 1 (pre-application community engagement).”.

Amendment of regulation 69

- 29.** In regulation 69 (offences), after sub-paragraph (1)(l), insert—
“(la) causes false information or, information falsely purporting to be a copy or reproduction of information, to be contained in the register required to be maintained by SEPA under regulation 38 of these Regulations.”.

Amendment of schedule 1

- 30.** In schedule 1 (registrations and permits: procedures)—
- (a) before paragraph 1, insert—

“Pre-application community engagement

- 1A.**—(1) SEPA may require any person who intends to apply for a permit or a variation to an existing permit to consult with members of the public likely to be affected by the proposed activity or variation,
- (2) SEPA may require that person to take such steps as SEPA considers appropriate.”,
- (b) after paragraph (2)(1)(c), insert—
- “(d) any information relating to pre-application community engagement required by SEPA under paragraph 1A.”,
- (c) in paragraph 7(3)—
- (i) in head (b), for “has the potential”, insert “is likely”,
- (ii) in head (c), at the end, insert, “having regard to the public participation statement”,
- (d) in paragraph 8—
- (i) after sub-paragraph (1)(d), insert—
- “(e) the times and places where, or the means by which, public consultees may access copies of the application, proposed SEPA initiated variation and any other relevant information required to be publicised.”,
- (ii) in sub-paragraph (2), omit “(a) or (b)”,
- (iii) in sub-paragraph (3), omit “further”,
- (iv) in sub-paragraph (8)(a), after “by,” insert “or”,
- (e) in paragraph 13, after sub-paragraph (2), insert—
- “(3) Where SEPA issues a SEPA initiated variation notice under regulation 25, any fee payable under a charging scheme for the variation is payable by the authorised person.”
- (f) in paragraph 14(3), omit “on the date specified in the notice and”,
- (g) in paragraph 15—
- (i) in sub-paragraph (1)(a)(v), for “which adversely affect” substitute “or otherwise preserve”,
- (ii) in sub-paragraph (1)(b)(i) and (ii), after “effect”, insert “in whole or in part”,
- (iii) in sub-paragraph (5)(b) for “applicant” substitute “authorised person”,
- (h) in paragraph 16—
- (i) in sub-paragraph (1)(d)(i) for “or” substitute “and”,
- (ii) after sub-paragraph (2), insert—
- “(3) SEPA may impose an off-site condition in a revocation notice.”,
- (i) in paragraph 18—
- (i) in sub-paragraph (b), for “,” substitute “.”,
- (ii) omit “in respect of which a third party representation has been made”,
- (j) after paragraph 19(1), insert—
- “(1A) The Scottish Ministers must consult SEPA before issuing a direction under sub-paragraph (1),”
- (k) omit paragraph 20,
- (l) omit paragraph 21,
- (m) omit paragraph 22,
- (n) in paragraph 24, omit the definition of “third party representation”,
- (o) after paragraph 24, insert—
- 25.**—(1) This paragraph applies to a function of the Scottish Ministers in connection with a matter referred to them under paragraph 19(1).

- (2) Where this paragraph applies, the Scottish Ministers may—
- (a) appoint a person to exercise any such function on their behalf, with or without payment,
 - (b) refer a matter to a person they may appoint for the purpose, with or without payment.”.

Amendment of schedule 2

31. In schedule 2 (off-site conditions)—

- (a) in paragraph 3(2)(b), after “permit”, insert “or the person upon whom a notice imposing an off-site condition was served”,
- (b) in paragraph 3(3)(b) —
 - (i) after “person”, the second time it appears, insert “or the person upon whom a notice imposing an off-site condition was served”,
 - (ii) delete “authorised”, the second time it appears.

Amendment of schedule 3

32. In schedule 3 (register)—

- (a) in Table 1—
 - (i) after entry 7, insert—

“7A.	Any notice given by SEPA to an applicant under paragraph 6 of Schedule 1, and where applicable, any information provided in response to such a notice.”
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- (ii) in entry 37, for “Any” substitute “An”,
- (iii) in entry 38, for “inspection report” substitute “programme of inspections (as defined in schedule 8),
- (iv) after entry 38, insert—

“39.	Any exemptions applied by SEPA in accordance with regulation 24(3) of the 2013 Regulations.
40.	Notification of a refusal under paragraph 9(2) of schedule 1 for a waste incineration plant or waste co-incineration plant.
41.	A list of all waste incineration and co-incineration plants with a nominal capacity of less than 2 tonnes per hour in operation.
42.	In relation to any decision on an application or SEPA initiated variation for a schedule 20 activity— <ul style="list-style-type: none"> (a) notification of a refusal under paragraph 9(2) of schedule 1, (b) the reasons for any decision under paragraph 9 of schedule 1,

	<p>(c) how any representations made in response to a consultation by SEPA were taken into account by SEPA in reaching their decision,</p> <p>(d) the title of the BAT reference documents relevant to the activity,</p> <p>(e) how the permit conditions, including emission limit values have been determined in relation to the best available techniques and emission levels associated with the best available techniques,</p> <p>(f) where a derogation is granted under paragraph 9(6) of schedule 20, the reasons for that derogation with reference to the criteria in paragraph 9(6),</p> <p>(g) that the decision is subject to consultations with a neighbouring state(s) as a result of paragraph 18 of schedule 20.</p> <p>The information in sub-paragraphs (a), (b) (f) must be made available electronically.</p>
43.	<p>In relation to a decision to grant a surrender application for a schedule 20 activity, a copy of any notice issued by SEPA under paragraph 15(5)(b) of schedule 1.</p> <p>This information must be made available electronically.</p>
44.	<p>The site visit report in relation to an inspection conducted under paragraph 14 of Schedule 20, within 4 months of the inspection.</p>

(v) in entries 2, 3, 4, 6, 8, 13, 14, 15 and 32, insert, at the end—

“Where related to an industrial emissions activity or operating a medium combustion plant, this information must be made available electronically.”,

(b) in paragraph 1, delete “ and “notice of intent”.

Amendment of schedule 4

33. In schedule 4 (provisions relating to appeals)—

(a) in paragraph 4—

(i) in sub-paragraph (b) before “withdrawal” insert “deemed”,

(ii) in sub-paragraph (c) delete “of determination”,

(iii) in sub-paragraph (d)—

- (aa) for “the authorised person”, substitute “another person”,
 - (bb) for “an authorisation”, substitute “a notice or permit”,
 - (cc) for “of the notice”, substitute “that a copy of the notice or permit is”,
 - (dd) for “3” substitute “4”,
- (b) in paragraph 24, for “inquiry” substitute “hearing”.

Amendment of schedule 8

34. In schedule 8 (radioactive substances activities)—

- (a) In paragraph 1—
 - (i) the current paragraph becomes sub-paragraph (2),
 - (ii) before sub-paragraph (2), insert—

“(1) This schedule applies to radioactive substances activities.”
- (b) omit paragraph 2(1)(d) and 2(1)(e),
- (c) in paragraph 3, omit the definitions of “PPC permit” and “waste management licence”,
- (d) in paragraph 4(1)—
 - (i) after the definition of “disposal” insert—

““high-activity sealed source” means a sealed source where the activity of the contained radionuclide is equal to or exceeds the relevant activity value laid down in Table 4,”
 - (ii) after the definition of “radioactive substance” insert—

““sealed source” means a radioactive source in which the radioactive substance is permanently sealed in a capsule or incorporated in a solid form with the objective of preventing under normal conditions of use, any dispersion of radioactive substances.”,
- (e) in paragraph 5, omit the definitions of “high-activity sealed source” and “sealed source”,
- (f) in paragraph 4(4), after “radioactive”, insert “,”,
- (g) in paragraph 14(2)—
 - (i) omit head (a),
 - (ii) in head (b), after “site”, insert “arising from the operation of that nuclear site”,
- (h) in paragraph 18(3) for “high-activity sealed source” substitute—

“sealed source in IAEA Categories 1 to 4”,
- (i) in paragraph 19—
 - (i) after “unless”, insert—

“—”,
 - (ii) from “the activity” to the end becomes sub-paragraph (a),
 - (iii) at the end of new sub-paragraph (a), insert—

“(JOPIIRR) insofar as the JOPIIRR apply to the activity, or

(b) it is an existing class or type of practice.”.
- (j) in paragraph 22(2), after “carried on”, insert “at”,
- (k) in Part 6, in column 2 of Table 4—
 - (i) for “ 6×10^{-2} ” in each place it appears, substitute—

“ 6×10^{-2} ”,
 - (ii) for “ 2×10^{-2} ”, substitute—

“ 2×10^{-2} ”,

- (iii) for “ 5×10^{-2} ”, substitute—
“ 5×10^{-2} ”,
- (iv) for “ 3×10^{-2} ”, substitute—
“ 3×10^{-2} ”,
- (v) for “ 1×10^{-1} ”, substitute—
“ 1×10^{-1} ”,
- (vi) for “ 1×10^0 ”, in each place it appears, substitute—
“1”,
- (vii) for “ 8×10^{-2} ”, substitute—
“ 8×10^{-2} ”,
- (viii) for “ 4×10^1 ”, substitute—
“ 4×10^1 ”,
- (ix) for “ 4×10^{-2} ”, substitute—
“ 4×10^{-2} ”,
- (x) for “ 2×10^{-1} ”, substitute—
“ 2×10^{-1} ”,
- (xi) for “ 2×10^1 ”, substitute—
“ 2×10^1 ”,
- (xii) “ 3×10^{-1} ”, substitute—
“ 3×10^{-1} ”,

Amendment of schedule 9

- 35.** In schedule 9 (general binding rules)—
- (a) in Part 1, after the Part head, insert—

“CHAPTER 1
Radioactive Substances”,
 - (b) in the entry for Activity 1, in column 2—
 - (i) in paragraphs (b) and (e), for “in normal refuse” substitute “mixed with substantial quantities of non-radioactive waste”,
 - (ii) in paragraph (d), for “normal refuse” substitute “non-radioactive waste”,
 - (c) in the entry for Activity 2—
 - (i) in column 1, after “management”, insert “(other than the treatment and disposal)”
 - (ii) in column 2—
 - (aa) for sub-paragraph (c), substitute—

“(c) a smoke detector must not be transferred to a person who is not legally entitled to manage it.”
 - (bb) omit sub-paragraph (d),
 - (d) in the entry for Activity 3, in column 2—
 - (i) in paragraph (e), for “in normal refuse” substitute, “mixed with substantial quantities of non-radioactive waste”,
 - (ii) in paragraph (f), for “normal refuse” substitute “non-radioactive waste”,
 - (iii) in paragraph (g), omit “in normal refuse”,
 - (e) in the entry for Activity 5, in column 2—

- (i) in paragraph (c) for “in normal refuse” substitute “mixed with substantial quantities of non-radioactive waste”,
 - (ii) in paragraph (d) for “normal refuse” substitute “non-radioactive waste”,
- (f) in the entry for Activity 7, in column 2—
- (i) in paragraph (b) for “in normal refuse” substitute “mixed with substantial quantities of non-radioactive waste”,
 - (ii) in paragraph (c) for “normal refuse” substitute “non-radioactive waste”,
 - (iii) after sub-paragraph (e) insert—
 - “(f) the maximum amount of uranium or thorium that can be held on a premises at any time is 5 kilograms.”,
- (g) in the entry for Activity 8, in column 2—
- (i) in paragraphs (b), (c) and (e) for “in normal refuse” wherever it appears substitute “mixed with substantial quantities of non-radioactive waste”,
 - (ii) for sub-paragraph (b)(ii) substitute—
 - “(ii) disposed into a relevant sewer or the sea (except for any part of the sea that is part of the water environment),”,
 - (iii) in paragraph (d) for “in normal refuse” substitute “non-radioactive waste”,
 - (iv) in paragraphs (f), (g) and (h), omit “human” wherever it appears,
 - (v) after sub-paragraph (h) insert—
 - “(i) the maximum amount of a radioactive substance that can be held on a premises at any time is—
 - (i) 1×10^9 becquerels of Tc-99m, and
 - (ii) 2×10^8 becquerels of all other radionuclides, no more than 1×10^8 becquerels of which may be radioactive material.”,
- (h) for the entry for Activity 10, in column 1, substitute—
- “10. The disposal of gaseous radioactive waste which contains no radionuclides other than Kr-85.”
- (i) in the entry for Activity 11,
- (i) in column 1—
 - (aa) in paragraph (a) for “column 2” substitute “column 3”,
 - (bb) in paragraph (b) for “in normal refuse” substitute “mixed with substantial quantities of non-radioactive waste”,
 - (ii) in column 2—
 - (aa) in paragraph (b) for “column 3” substitute “column 2”,
 - (bb) in paragraphs (c) and (d) for “normal refuse” wherever it appears substitute “non-radioactive waste”,
 - (cc) for paragraph (e) substitute—
 - “(e) an aqueous liquid radioactive substance must only be disposed of into a relevant sewer or the sea (except for any part of the sea that is part of the water environment),”,
 - (dd) after paragraph (h) insert—
 - “(i) the total activity of radioactive waste disposed of in normal refuse in a year must not exceed—
 - (i) 2×10^9 becquerels for tritium or C-14,
 - (ii) 2×10^8 becquerels for any other radionuclide,”,
- (j) at the end of the table, after the final row (the entry relating to activity 11), insert—

“CHAPTER 2

Water

<i>Column 1</i> <i>Activity</i>	<i>Column 2</i> <i>Rules</i>
<p>1. The operation of any weir that—</p> <p>(a) is not capable of being operated to control the water level upstream of the weir,</p> <p>(b) does not result in the creation of a height differential between the upstream and downstream water surfaces of more than one metre, and</p> <p>(c) was constructed before 1st April 2006.</p>	<p>The weir must not impede the free passage of salmon and sea trout during periods within which, in the absence of the weir, the flow of the river would be at a level expected to enable migration.</p>
<p>2. The abstraction of less than 10 m³ of water in any one day.</p>	<p>(a) There must be a means of demonstrating that the abstraction is less than 10 m³ in any one day, such as a means of measuring the rate of the abstraction or a means of demonstrating that the maximum volume that could be abstracted cannot exceed 10 m³ in any one day,</p> <p>(b) water leakage must be kept to a minimum by ensuring all pipe work, storage tanks and other equipment associated with the abstraction and use of the water are maintained in a state of good repair, and</p> <p>(c) the activity must not be located within 50 metres of any existing well, spring or borehole used for a water supply.</p>
<p>3. The construction, extension or operation of any well, borehole or other works by which water may be abstracted, if such works are—</p>	<p>(a) The construction and operation of—</p> <p>(i) subject to paragraphs (b) and (c), the well or borehole, and</p> <p>(ii) any other works,</p> <p>must be such as to—</p> <p>(aa) prevent the introduction to the water environment of water of a different chemical composition, or the introduction of substances or heat to the water environment which may give rise to harm to the water</p>

		(bb)	environment, prevent the mixing of groundwater of different chemical compositions in the water environment, and
		(cc)	prevent the flow of water between two hydro-geologically separate aquifers
(a) not intended for the purpose of abstraction,	(b)		drilling fluids may be introduced into the well or borehole if necessary to facilitate the drilling of the well or borehole provided this does not result in harm to the water environment,
(b) intended for the abstraction of less than 10 m ³ of water in any one day,	(c)		potable water may be introduced into the well or borehole to test the hydraulic properties of the aquifer,
(c) intended for the abstraction of less than 150 m ³ of water in any period of one year, and the purpose of the abstraction is either—	(d)		when the well or borehole is no longer required, it must be back filled or sealed to the extent necessary to:
(i) to test for the yield of the borehole or well or the hydraulic properties of the aquifer, or			(i) avoid loss of groundwater from any aquifer, and
(ii) to sample the water quality,			(ii) avoid the introduction, into any body of groundwater, of—
(d) intended to dewater one or more excavations at—			(aa) substances or heat which may give rise to harm to the water environment, or
(i) a construction site for roads, buildings, pipelines, or other built developments, or	(e)		(bb) water of a different chemical composition into any body of groundwater.
(ii) a site at which the maintenance of such developments is being undertaken, or	(f)		the depth of any well or borehole beneath the surface of the ground must not exceed 200 metres.
(e) intended for the purpose of undertaking activity 17.			the borehole must not be constructed within 50 metres of an existing well or borehole for the supply of water without the consent of the owner of the existing well or borehole.
4. The abstraction from a borehole, and any subsequent discharge of the abstracted water, if the total volume of water abstracted is less than 150 m ³ in any period of one year and the purpose of the abstraction is either—	(a)		The abstraction must not cause the introduction to any body of groundwater of —
(a) to test the yield of the borehole or	(b)		(i) substances or heat which may give rise to harm to the water environment, or
			(ii) water of a different chemical composition.
			when the borehole is not being used

<p>well or the hydraulic properties of the aquifer, or</p> <p>(b) to sample the water quality.</p>	<p>for abstraction, it must be back filled or sealed to the extent necessary to avoid loss of groundwater from any aquifer.</p>
<p>5. The dredging of a river, burn or ditch that—</p> <p>(a) has an average bed width of less than one metre along the stretch to be worked, and</p> <p>(b) has been artificially straightened or canalised along the length which is to be worked.</p>	<p>(a) Vegetation on any bank of the river, burn or ditch may be removed or modified only to the extent that the works cannot reasonably be carried out without such removal or modification,</p> <p>(b) any vegetation removed must not be disposed of into the river, burn or ditch,</p> <p>(c) the activity must not result in the widening of the bed width of the river, burn or ditch,</p> <p>(d) all reasonable steps must be taken to prevent the transport of sediments or other matter disturbed by the works into waters beyond the worked stretch,</p> <p>(e) any works in the wetted part of the river, burn or ditch must not be undertaken during periods in which fish are likely to be spawning in the river, burn or ditch nor in the period between any such spawning and the subsequent emergence of the juvenile fish,</p> <p>(f) all reasonable steps must be taken to avoid increased erosion of the bed or banks of the river, burn or ditch as a result of the works,</p> <p>(g) the bed of the worked stretch must be graded at a shallow angle to tie in with the bed level upstream and downstream and there must be no steps or sudden changes in the angle of the bed slope, and</p> <p>(h) the removed sediment must not be left on the banks such that its placement heightens the banks.</p>
<p>6. The installation—</p> <p>(a) of a crossing where no part of the crossing is on the bed or banks of a river, burn, ditch or loch,</p> <p>(b) of an outfall which discharges into a river, burn, ditch or loch,</p>	<p>(a) Vegetation on any bank of the river, burn, ditch or loch may be removed or modified only to the extent that the works cannot be reasonably be carried out without such removal or modification,</p> <p>(b) any vegetation removed must not be disposed of into the river, burn, ditch or loch,</p> <p>(c) the works must not prevent the free passage of migratory fish,</p>

7. The installation and removal of —
- (a) temporary crossings and temporary structures in a river, burn, ditch or loch, or
 - (b) any temporary works associated with the undertaking of any other activity specified in this schedule or for the purpose of maintaining an existing man-made structure in a river, burn, ditch or loch,
- unless the installation or removal is authorised by a registration or permit under these Regulations.

- (d) the works must not result in the narrowing of the channel width nor the heightening of either bank,
 - (e) any works in the wetted part of any river, burn, ditch or loch must not be undertaken during periods in which fish are likely to be spawning in the river, burn, ditch or loch nor in the period between any such spawning and the subsequent emergence of the juvenile fish,
 - (f) all reasonable steps must be taken to ensure that the works do not result in increased erosion of the bed or banks of the river, burn, ditch or loch,
 - (g) the works must not result in the introduction of substances or heat to the water environment which may give rise to harm to the water environment, and
 - (h) any outfall and associated works must be designed and installed to be no larger than is necessary for the proper operation of the outfall, and in any case must not extend more than 20 metres along the length of the river, burn, ditch or loch.
- (a) any temporary crossing, temporary structure or temporary works—
 - (i) must be removed as soon as is reasonably practicable and in any event within a period of 12 months beginning with the date on which its installation commences,
 - (ii) must not prevent the free passage of migratory fish,
 - (iii) must not cause harm to fish,
 - (iv) must not cause harm to freshwater pearl mussels,
 - (v) must not result in the introduction of any substance or heat to the water environment which may give rise to harm to the water environment,
 - (b) the installation and removal of any temporary crossing, temporary structure or temporary works within the wetted part of the river, burn, ditch or loch must not take place during periods in which fish are likely to be spawning in that part of the river, burn, ditch or loch nor during the period between any such spawning and the subsequent emergence of the juvenile fish,
 - (c) vegetation on any bank of the river,

		<p>burn, ditch or loch may be removed or modified only to the extent that the works cannot reasonably be carried out without such removal or modification,</p> <p>(d) any vegetation removed must not be disposed of into the river, burn, ditch or loch, and</p> <p>(e) all reasonable steps must be taken to ensure that the works do not result in increased erosion of the bed or banks of the river, burn, ditch or loch.</p>
8.	Bank works by revetment or bank reprofiling of a river, burn, ditch or loch.	<p>(a) All reasonable steps must be taken to ensure that the works do not result in increased erosion of either bank of the river, burn, ditch or loch,</p> <p>(b) the works must not result in the destabilisation of the bed of the river, burn, ditch or loch upstream or downstream of the works,</p> <p>(c) vegetation on any bank of the river, burn, ditch or loch may be removed or modified only to the extent that the works cannot reasonably be carried out without such removal or modification,</p> <p>(d) any vegetation removed must not be disposed of into the river, burn, ditch or loch,</p> <p>(e) revetments must be constructed from one or more of the following: vegetation, biodegradable geotextiles, wood other than wood treated with preservatives or non-grouted stone rip-rap,</p> <p>(f) the length of any revetment or bank reprofiling must be no more than 10 metres or one channel width, whichever is greater,</p> <p>(g) if wood or stone rip-rap is used for a revetment, the wood or rip-rap must only be placed at the toe of the bank, except for the purpose of repairing an existing revetment, no bank protection works must be undertaken within 5 channel widths or 50 metres (whichever is the greater) of any existing bank protection works on any bank of the river, burn, ditch or loch,</p> <p>(i) the works must not result in the heightening or lowering of either bank top, and</p> <p>(j) the works must not result in the introduction of any substances or heat to the water environment which may</p>

	give rise to harm to the water environment.
<p>9. Operating any vehicle, plant or other equipment in or near any surface water or wetland for the purpose of undertaking any other activity specified in this chapter of the schedule or for the purpose of maintaining an existing man-made structure in or near any surface water or wetland.</p>	<p>(a) Any vehicles, plant or other equipment must only operate in water where it is impracticable for them to operate on dry land,</p> <p>(b) the refuelling of vehicles, plant or other equipment must be undertaken at least 10 metres from any—</p> <p>(i) river, burn, canal, ditch or loch, as measured from the top of the bank,</p> <p>(ii) wetland,</p> <p>(iii) transitional water or coastal water, as measured from the shoreline.</p> <p>(c) any static plant or equipment used within 10 metres of any—</p> <p>(i) river, burn, canal, ditch or loch, as measured from the top of the bank,</p> <p>(ii) wetland,</p> <p>(iii) transitional water or coastal water, as measured from the shoreline,</p> <p>must be positioned on a suitably sized and maintained impervious drip tray with a capacity equal to 110% of the capacity of the fuel tank which is supplying the plant or equipment,</p> <p>(d) any vehicle, plant or other equipment used in or near surface water or wetland must not leak any oil,</p> <p>(e) the washing of vehicles, plant or other equipment must be undertaken at least 10 metres away from any—</p> <p>(i) river, burn, ditch or loch, as measured from the top of the bank,</p> <p>(ii) wetland, or</p> <p>(iii) transitional water or coastal water, as measured from the shoreline,</p> <p>(f) vehicles, plant or other equipment must not be operated in the wetted part of a river, burn, ditch or loch during periods in which fish are likely to be spawning in the river, burn, ditch or loch nor during the period between any such spawning and the subsequent emergence of the juvenile fish,</p> <p>(g) vehicles, plant or equipment must not</p>

	<p>be operated in any part of a river, burn, ditch or loch if there is a reasonable likelihood that, within 50 metres of such an operation, there are freshwater pearl mussels, and</p> <p>(h) during forestry operations the operator must not operate machinery in any surface water or wetland, and</p> <p>(i) following the operation of the vehicle, plant or other machinery, any damage caused by the operation to the bed and banks of the surface water or wetland must be repaired, including re-establishing vegetation on any areas of bare earth on the banks resulting from the operation, either by covering the area with grass turfs or lining them with a biodegradable geotextile and seeding.</p>
<p>10A. The discharge of water run-off from a surface water drainage system to the water environment from buildings, roads other than water-bound roads, yards, or any other built development constructed before 1 April 2007, with the exception of run-off from any motorway or trunk road where—</p> <p>(i) any one outfall serves a length of road greater than 1km, and</p> <p>(ii) the footprint of the road or its associated infrastructure is enlarged or otherwise altered on or after 1 April 2007.</p>	<p>(a) All reasonable steps must be taken to ensure that the discharge does not result in the introduction of substances or heat to the water environment which may give rise to harm to the water environment, the discharge must not—</p> <p>(i) contain any trade effluent or domestic sewage,</p> <p>(ii) result in visible discolouration, iridescence, foaming or sewage fungus in the water environment, or</p> <p>(iii) contain any water run-off from a construction site,</p> <p>(c) the discharge must not result in the destabilisation of the banks or bed of the receiving surface water,</p> <p>(d) all facilities with which the surface water drainage system is equipped to avoid the introduction of substances or heat to the water environment which may give rise to harm to the water environment, including oil interceptors, silt traps and SUD system attenuation, settlement and treatment facilities, must be maintained in good order and repair,</p> <p>(e) all reasonable steps must be taken to ensure that any matter liable to block, obstruct, or otherwise impair the ability of the surface water drainage system to avoid the introduction of substances or heat to the water environment which may give rise to harm to the water environment is prevented from entering the drainage</p>

	system.
<p>10B. The discharge of water run-off from a surface water drainage system to the water environment from buildings, roads other than water-bound roads, yards, or any other built development constructed on or after 1 April 2007, with the exception of run-off from—</p> <ul style="list-style-type: none"> (i) land of more than 30 hectares which is used for residential premises, (ii) industrial estates, (iii) land used as a motorised vehicle parking area with more than 1,000 parking spaces, (iv) motorways and trunk roads where any one outfall serves a length of road greater than 1km. 	<ul style="list-style-type: none"> (a) All reasonable steps must be taken to ensure that the discharge does not result in the introduction of substances or heat to the water environment which may give rise to harm to the water environment, (b) the discharge must not— <ul style="list-style-type: none"> (i) contain any trade effluent or domestic sewage, (ii) result in visible discolouration, iridescence, foaming or sewage fungus in the water environment, or (iii) contain any water run-off from a construction site, (c) the discharge must not result in the destabilisation of the banks or bed of the receiving surface water, (d) the development must be drained by a SUD system equipped to avoid the introduction of substances or heat to the water environment which may give rise to harm to the water environment, unless— <ul style="list-style-type: none"> (i) the run-off is from a development that is a single dwelling and its curtilage, or (ii) the discharge is to coastal water, (e) the discharge must not contain any water run-off from— <ul style="list-style-type: none"> (i) any fuel delivery areas constructed on or after 1 April 2007, or any areas where vehicles, plant and equipment are refuelled constructed on or after 1 April 2007, (ii) vehicle loading or unloading bays constructed on or after 1 April 2007 where potentially polluting matter is handled, or (iii) oil and chemical storage handling and delivery areas constructed on or after 1 April 2007, (f) all facilities with which the surface

	<p>water drainage system is equipped to avoid the introduction of substances or heat which may give rise to harm to the water environment, including oil interceptors, silt traps and SUD system attenuation, settlement and treatment facilities, must be maintained in good order and repair,</p> <p>(g) all reasonable steps must be taken to ensure that any matter liable to block, obstruct, or otherwise impair the ability of the surface water drainage system to avoid the introduction of substances or heat to the water environment which may give rise to harm to the water environment is prevented from entering the drainage system.</p>
<p>10C. The discharge of water run-off from a quarry or borrow pit constructed on or after 1 January 2022.</p>	<p>(a) All reasonable steps must be taken to ensure that the discharge does not result in the introduction of substances or heat to the water environment which may give rise to any harm to the water environment,</p> <p>(b) the discharge must not—</p> <p>(i) contain any trade effluent or domestic sewage, or</p> <p>(ii) result in visible discolouration, iridescence, foaming or sewage fungus in the water environment,</p> <p>(c) the discharge must not result in the destabilisation of the banks or bed of the receiving surface water,</p> <p>(d) the discharge must not contain any water run-off from—</p> <p>(i) any fuel delivery areas constructed on or after 1 April 2007, or any areas where vehicles, plant and equipment are refuelled constructed on or after 1 April 2007,</p> <p>(ii) vehicle loading or unloading bays constructed on or after 1 April 2007 where potentially polluting matter is handled, or</p> <p>(iii) oil and chemical storage handling and delivery areas constructed on or after 1 April 2007,</p> <p>(e) the quarry or borrow pit must be drained by a SUD system or equivalent system equipped to avoid the introduction of substances or heat</p>

	<p>to the water environment which may give rise to harm to the water environment,</p> <p>(f) all facilities with which the surface water drainage system is equipped to avoid the introduction of substances or heat to the water environment which may give rise to harm to the water environment, including oil interceptors, silt traps and SUD system attenuation, settlement and treatment facilities, must be maintained in good order and repair,</p> <p>(g) all reasonable steps must be taken to ensure that any matter liable to block, obstruct, or otherwise impair the ability of the surface water drainage system to avoid the introduction of substances or heat to the water environment which may give rise to harm to the water environment is prevented from entering the drainage system.</p>
<p>10D. The discharge of water run-off from a construction site to the water environment where the site, including any constructed access tracks, does not—</p> <p>(i) exceed 4 hectares,</p> <p>(ii) contain a road or track length in excess of 5km, or</p> <p>(iii) include any area of more than 1 hectare or any length of more than 500 metres on ground with a slope in excess of 25°.</p>	<p>(a) All reasonable steps must be taken to ensure that the discharge does not introduce substances or heat to the water environment which may give rise to harm to the water environment,</p> <p>(b) the discharge must not—</p> <p>(i) contain any trade effluent or domestic sewage, or</p> <p>(ii) result in visible discolouration, iridescence, foaming or sewage fungus in the water environment,</p> <p>(c) the discharge must not result in the destabilisation of the banks or bed of the receiving surface water,</p> <p>(d) the discharge must not contain any water run-off from any built developments, unless during construction those developments are drained by a SUD system or equivalent system equipped to avoid the introduction of substances or heat to the water environment which may give rise to harm to the water environment,</p> <p>(e) the discharge must not contain any water run-off from—</p> <p>(i) any fuel delivery areas constructed on or after 1 April 2007, or any areas where vehicles, plant and equipment are refuelled</p>

	<p>constructed on or after 1 April 2007,</p> <p>(ii) vehicle loading or unloading bays constructed on or after 1 April 2007 where potentially environmentally harmful matter is handled, or</p> <p>(iii) oil and chemical storage handling and delivery areas constructed on or after 1 April 2007,</p> <p>(f) all parts of a construction site on which—</p> <p>(i) operations first commenced on or after 1 June 2018, and</p> <p>(ii) any works are to be undertaken, or any vehicles are to be operated or parked,</p> <p>must be drained by a surface water drainage system with capacity to accommodate the maximum volume of run-off that would reasonably be expected to occur from that land during the period of construction,</p> <p>(g) all facilities with which the surface water drainage system is equipped to avoid the introduction of substances or heat to the water environment which may give rise to harm to the water environment, including oil interceptors, silt traps and SUD system attenuation, settlement and treatment facilities, must be maintained in good order and repair,</p> <p>(h) all reasonable steps must be taken to ensure that any matter liable to block, obstruct, or otherwise impair the ability of the surface water drainage system to avoid the introduction of substances or heat to the water environment which may give rise to harm to the water environment is prevented from entering the drainage system.</p>
<p>11. Discharge into a surface water drainage system.</p>	<p>(a) Oil, paint, paint thinners, pesticides, detergents, disinfectants or other substances or heat which may give rise to harm to the water environment must not be disposed of into a surface water drainage system or onto any surface that drains into a surface water drainage system,</p> <p>(b) any matter liable to block, obstruct, or otherwise impair the ability of the</p>

	<p>surface water drainage system to avoid the introduction of substances or heat to the water environment which may give rise to harm to the water environment must not be disposed of into a surface water drainage system or onto a surface that drains into a surface water drainage system,</p> <p>(c) domestic sewage or trade effluent must not be discharged into any surface water drainage system, and</p> <p>(d) on construction sites, any area of exposed soil from which the discharge of water run-off to the water environment is authorised under activity 10D, and the period of time during which such soil is exposed, must be the minimum required to facilitate the construction works being undertaken at that site.</p>
<p>12. The removal of sediment or any other matter that may have been deposited on the bed of a river, burn or ditch in the area of impounded water upstream of a weir the operation of which is authorised under these Regulations and the return of that sediment if desired to the river, burn or ditch from which it was removed.</p>	<p>(a) Only sediment or other matter within 10 metres upstream of the weir may be removed,</p> <p>(b) the sediment or other matter removed must only include sediment or other matter that could reasonably be expected to have been deposited on the bed of the river, burn or ditch within a period of 3 years preceding the date of the removal,</p> <p>(c) subject to paragraph (d), any gravel and coarse sediment that has been removed must, where possible, be returned to the river, ditch or burn from which it was taken,</p> <p>(d) the return of sediment must</p> <p>(i) be achieved by placing it at the edge of the river, burn or ditch downstream of the weir in such a way and at such a location that high river flows are able to cause it to be redistributed by the river, burn or ditch,</p> <p>(ii) not result in an accumulation of sediment likely to impede the free passage of migratory fish,</p> <p>(iii) not be placed in a wetted part of the river, burn or ditch during periods in which fish are likely to be spawning in that part of the river, burn or ditch nor during the period between any such spawning and the</p>

	<p>subsequent emergence of the juvenile fish,</p> <p>(iv) be placed in such a way and such a location that the risk of the placement resulting in increased erosion of the bed or banks of the river burn, or ditch is minimised</p> <p>(v) not contain man-made matter, and</p> <p>(vi) not result in the introduction of substances or heat to the water environment which may give rise to harm to the water environment</p> <p>(e) removed sediment and other matter must not be deposited on the bed or left on the banks such that its placement heightens the banks of any river, burn, ditch or loch except in accordance with paragraph (c) and (d),</p> <p>(f) the removal of sediment must not result in the introduction of substances or heat to the water environment which may give rise to harm to the water environment,</p> <p>(g) vegetation on any bank of the river, burn or ditch may be removed or modified only to the extent that the works cannot reasonably be carried out without such removal or modification, and</p> <p>(g) any vegetation removed must not be disposed of into the channel.</p>
<p>13. For the purpose of ensuring the proper functioning of a closed culvert, abstraction or discharge pipe, the removal of accumulations of sediment or other matter from—</p> <p>(a) the bed of a river, burn, ditch or loch within 10 metres upstream of the point of entry of that river, burn, ditch or loch into a closed culvert,</p> <p>(b) the bed of a river, burn, ditch or loch within 10 metres downstream of the point of exit of that river, burn or ditch from a closed culvert, or</p> <p>(c) the inside of a closed culvert,</p> <p>(d) the bed of a river, burn, ditch or loch</p>	<p>(a) The removal or return must not result in the bed of the river, burn, ditch or loch upstream of the culvert being lower than the upper surface of the base of the culvert where it joins the river burn or ditch or loch,</p> <p>(b) the removal or return must not result in there being a vertical step between the upper surface of the base of the culvert and the bed of the river, burn, ditch or loch into which it discharges,</p> <p>(c) the removal or return must not be undertaken in the wetted part of the river, burn, ditch or loch during periods in which fish are likely to be spawning in the river, burn, ditch or loch nor in the period between any such spawning and the subsequent emergence of the juvenile fish,</p> <p>(d) vegetation on any bank of the river, burn, ditch or loch may be removed</p>

<p>within 5 metres of—</p> <ul style="list-style-type: none"> (i) an outfall for a surface water drainage system that discharges water run-off from buildings, roads, yards, any other built developments, or construction sites for such developments (ii) an outfall for a sewage or trade effluent discharge, or (iii) an inlet for a water abstraction, <p>and, if desired, any subsequent return of the removed sediment to the river, burn, ditch or loch from which it was removed.</p>	<p>or modified only to the extent that the works cannot reasonably be carried out without such removal or modification,</p> <ul style="list-style-type: none"> (e) Any vegetation removed must not be disposed of into the channel, (f) removed sediment and other matter must not be left on the banks such that its placement heightens the banks of any river, burn, ditch, or loch, (g) subject to paragraph (h), the removed sediment must, where possible, be returned to the river, burn, ditch or loch from which it was removed, and (h) the removed sediment must only be returned to the river, burn, ditch or loch from which it was removed, if: <ul style="list-style-type: none"> (i) it is returned as close to the location of its removal as is practicable, (ii) it does not result in an accumulation of sediment likely to impede the free passage of migratory fish, (iii) all reasonable steps are taken to avoid increased erosion of the bed or the banks of the river, burn, ditch or loch, and (i) the activity does not result in the introduction of substances or heat to the water environment which may give rise to harm to the water environment.
<p>14. The installation of instream structures or the placement of one or more boulders in a river, burn or ditch.</p>	<ul style="list-style-type: none"> (a) The placed boulder or boulders or the installed instream structures must not occupy more than 10% of the bed width, (b) the boulder or boulders, croy or flow detector must not be placed within 20 metres of any other boulder or boulders or any structure on the bed of the river, burn or ditch, (c) no boulder or boulders and croy or flow deflector must be placed or installed in such a way as to extend the width occupied by any structure to greater than 10% of the bed width, (d) the tops of the boulders, and any croy or flow deflector must be submerged except during periods of low flows, (e) any works in the wetted part of the river, burn or ditch must not be undertaken during periods in which fish are likely to be spawning in the

	<p>river, burn, or ditch nor in the period between any such spawning and the subsequent emergence of the juvenile fish,</p> <p>(f) all reasonable steps must be taken to ensure that the works do not result in increased erosion of the bed or banks of the river, burn or ditch</p> <p>(g) boulders and instream structures must not be placed or installed if there is a reasonable likelihood that, within 50 metres of the intended placement, there are freshwater pearl mussels,</p> <p>(h) boulders and instream structures must not be placed or installed such that they prevent the free passage of migratory fish, and</p> <p>(i) the works must not result in the introduction of substances or heat to the water environment which may give rise to harm to the water environment.</p>
<p>15. The temporary abstraction of groundwater at:</p> <p>(a) a construction site for roads, railways, buildings, pipelines, communication links or other built development, or</p> <p>(b) a site at which the maintenance of such development is being undertaken,</p> <p>by means of:</p> <p>(i) pumping the groundwater directly from any excavation or excavations on the site, or</p> <p>(ii) pumping the groundwater from any wells or boreholes on the site in order to help dewater any other excavation or excavations on the site,</p> <p>and, if desired, the subsequent discharge of the abstracted groundwater to the water environment.</p>	<p>(a) Groundwater may only be abstracted at the site within a period of 180 days beginning with the first day on which groundwater is abstracted at the site,</p> <p>(b) other than where paragraph (g)(i) applies, groundwater must not be abstracted from any excavations, wells or boreholes that are within 250 metres of any surface water unless the abstracted water is discharged into the surface water at the nearest part of the surface water to the point of abstraction and in accordance with paragraph (f) or (g)(ii), as applicable,</p> <p>(c) groundwater must not be abstracted from any excavations, wells or boreholes that are within 250 metres of a wetland,</p> <p>(d) groundwater must not be abstracted from any excavations, wells or boreholes that are within 250 metres of an abstraction that is not for the sole purpose of dewatering an excavation,</p> <p>(e) all reasonable steps must be taken to ensure that the quantity of sediment in the abstracted water is minimised,</p> <p>(f) if the abstracted groundwater is taken directly from an excavation and this water, and any precipitation or water run-off that has also collected in the excavation, is discharged to the water environment, it must be discharged</p>

	<p>via a surface water drainage system authorised under these Regulations subject to the consent of the person having operational control of the system ,</p> <p>(g) if the abstracted groundwater is taken from a borehole or well, and is discharged to the water environment, it must be—</p> <p>(i) discharged directly back to the same part of the geological formation or the mine workings from which it was abstracted, provided that the abstracted water does not contain any radioactive substance, and that no substances are added to, or otherwise allowed to enter, the abstracted water prior to its return, or</p> <p>(ii) discharged via a surface water drainage system authorised under these Regulations subject to the consent of the person having control of the system, and</p> <p>(h) all reasonable steps must be taken to ensure that the discharge of abstracted groundwater does not result in the introduction of substances or heat to the water environment which may give rise to harm to the water environment.</p>
<p>16. The direct discharge of substances or heat which may give rise to harm to the water environment into groundwater as a result of construction or maintenance works in or on the ground which come into contact with groundwater.</p>	<p>(a) No solid or liquid materials coming into contact with groundwater may contain any groundwater hazardous substance,</p> <p>(b) despite paragraph (a), drilling fluids used during the works and grout used to stabilise underground workings may come into contact with groundwater if necessary to facilitate any drilling or grouting provided this does not result in the introduction of any substance or heat which may give rise to harm to the water environment,</p> <p>(c) no materials coming into contact with groundwater as a result of the works may cause the introduction of substances or heat to the water environment which may give rise to harm to the water environment,</p>

	(d) the edge of any grouted area must not be within 250 metres of any springs, wells or boreholes that supply water for human consumption,
<p>17. The abstraction and subsequent return of groundwater for the purpose of extracting geothermal energy from the abstracted water or for the purpose of transferring heat to geological formations as part of a cooling system.</p>	<p>(a) The abstracted water must be returned to the same part of the geological formation or the mine workings from which it was abstracted,</p> <p>(b) any volume of water may be abstracted but the volume of water abstracted and not returned must not exceed 10m³ per day,</p> <p>(c) no substances may be added to, or otherwise allowed to enter, the abstracted water prior to its return to the geological formation or the mine workings from which it was abstracted,</p> <p>(d) there must be a means of demonstrating that the net abstraction is not more than 10m³ in any one day,</p> <p>(e) water leakage must be kept to a minimum by ensuring that all pipe work, storage tanks and other equipment associated with the abstraction and use of the water are maintained in a good state of repair, and</p> <p>(f) the activity must not be located within 250 metres of any abstraction of water intended for human consumption that is in use prior to the activity commencing and must not prevent any abstraction of water which is authorised under these Regulations provided it is in use prior to the activity commencing.</p>
<p>18. (a) The storage of fertiliser unless—</p> <p>(i) the storage is regulated as a waste activity under these Regulations,</p> <p>(ii) it is an activity specified at activities 31, 32 or 34 of column 1 of this schedule,</p> <p>(b) The application of any fertiliser.</p>	<p>(a) No fertiliser may be stored, including temporarily in a mobile tank or bowser, on land that—</p> <p>(i) is within 10 metres of —</p> <p>(1) river, burn, ditch or loch, as measured from the top of the bank,</p> <p>(2) wetland,</p> <p>(3) transitional water or coastal water, as measured from the shoreline,</p> <p>(ii) is within 50 metres of any—</p> <p>(1) spring that supplies water for human consumption,</p>

	<p>(2) well or borehole that is not capped in such a way so as to prevent the ingress of water</p> <p>(iii) is waterlogged,</p> <p>(iv) has an average soil depth of less than 40 centimetres and overlies gravel or fissured rock, unless the fertiliser is stored in an impermeable container,</p> <p>(v) is sloping (unless the fertiliser is inorganic or it is ensured that any run-off of fertiliser is intercepted (by means of a sufficient buffer zone or otherwise) to prevent it from entering any river, burn, ditch, wetland, loch, transitional water or coastal water towards which the land slopes), unless the fertiliser is stored in a building which is constructed and maintained to such a standard as is necessary to prevent run-off or seepage of fertiliser from the building,</p> <p>(c) any storage system used to store liquid sewage sludge must be maintained in such a condition that no sewage sludge escapes from the system,</p> <p>(d) inorganic liquid fertiliser must only be stored in a rigid, impermeable tank that—</p> <p>(i) has a lockable, double valve on the outlet that is closed and locked when the tank is unattended,</p> <p>(ii) is located above ground,</p> <p>(iii) is protected from vehicle collision,</p> <p>(e) inorganic liquid fertiliser must not be stored in a field unless contained in a tank, bowser or spreading equipment—</p> <p>(i) whose hatches and lids are securely closed and whose outlets are securely closed and locked, except when fertiliser is being transferred or applied,</p> <p>(ii) that is held on a support in such a way that it cannot become dislodged,</p> <p>(iii) that is on a support which is</p>
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		<p>stable under the fully loaded weight of the tank or bowser and cannot itself become dislodged,</p> <p>(f) when any inorganic liquid fertiliser, liquid digestate or liquid sewage sludge is being transferred to a tank, bowser or spreading equipment, all reasonable steps must be taken to prevent any spillage or leakage entering the water environment,</p> <p>(g) no organic fertiliser may be applied to land that—</p> <p>(i) is within 10 metres of any</p> <ol style="list-style-type: none"> (1) river, burn, ditch or loch, as measured from the top of the bank, (2) wetland, (3) transitional water or coastal water, as measured from the shoreline, (4) opening into a surface water drainage system <p>(ii) is within 50 metres of any—</p> <ol style="list-style-type: none"> (1) spring that supplies water for human consumption, (2) well or borehole that is not capped in such a way so as to prevent the ingress of water, <p>(iii) has an average soil depth of less than 40 centimetres and overlies gravel or fissured rock, except where the application is for forestry operations,</p> <p>(iv) is frozen (except where the fertiliser is farmyard manure), waterlogged, or covered with snow,</p> <p>(v) is sloping, unless it is ensured that any run-off of fertiliser is intercepted (by means of a sufficient buffer zone or otherwise) to prevent it from entering any river, burn, ditch, wetland, loch, transitional water or coastal water towards which the land slopes,</p>
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		<p>(h) no inorganic fertiliser may be applied to land that—</p> <p>(i) is within 2 metres of any—</p> <ol style="list-style-type: none"> (1) river, burn, ditch or loch, as measured from the top of the bank, (2) wetland, (3) transitional water or coastal water, as measured from the shoreline, or (4) opening into a surface water drainage system, or <p>(ii) is within 5 metres of any—</p> <ol style="list-style-type: none"> (1) Spring that supplies water for human consumption, (2) Well or borehole that is not capped in such a way so as to prevent the ingress of water, <p>(iii) has an average soil depth of less than 40 centimetres and overlies gravel or fissured rock, except where the application is for forestry operations,</p> <p>(iv) is frozen, waterlogged, or covered with snow, or</p> <p>(v) is sloping, unless it is ensured that any run-off of fertiliser is intercepted (by means of a sufficient buffer zone or otherwise) to prevent it from entering any river, burn, ditch, wetland, loch, transitional water or coastal water towards which the land slopes,</p> <p>(i) fertilisers must not be applied to land:</p> <ol style="list-style-type: none"> (i) in such amounts that the crop requirement for
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		<ul style="list-style-type: none"> (ii) nitrogen is exceeded, in excess of the amount required to maintain the soil phosphorus status at acceptable agronomic levels, or (iii) during heavy rainfall or where heavy rainfall is forecast within 24 hours, (j) dewatered digestate or dewatered sewage sludge must be stored— <ul style="list-style-type: none"> (i) in such a way that it is securely contained so that any escape or run-off is prevented, or (ii) in a heap which is protected from the ingress of water, (k) if dewatered digestate or dewatered sewage sludge is stored in a heap in field, it must be applied to land within 6 months of the commencement of the storage, (l) any equipment used to apply fertiliser must be maintained in a good state of repair, (m) fertiliser must be applied on land in such a way and at such times that the introduction of substances or heat to the water environment which may give rise to harm to the water environment is minimised, (n) where organic fertilisers are to be applied to land— <ul style="list-style-type: none"> (i) a risk assessment must be carried out in respect of that land, including the preparation of a map of the farm which clearly shows— <ul style="list-style-type: none"> (1) the delineation of every field, (2) the area of every field in hectares, (3) the location of all surface water, springs, wells, boreholes storage tanks or any other structures sunk into underground strata for the purpose of providing a water supply, (4) any area of land with a slope of 12 degrees or more,
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			<ul style="list-style-type: none"> (5) the location of any field heaps, (6) areas where organic fertiliser must not be applied in accordance with paragraph (g)(i), (ii), (iii) and (v), and (7) any other area of high risk to the water environment, <ul style="list-style-type: none"> (ii) the person carrying out the application of organic fertilisers must be provided with the map for the area to which fertiliser is being applied, or (iii) field heaps of organic fertilisers must not be located in any area identified on the map in accordance with paragraph (i)(3), (6) or (7), and
		(o)	slurry and liquid digestate must be applied using precision equipment.
19. Keeping of livestock.		<ul style="list-style-type: none"> (a) Significant erosion or poaching of any land that is within 5 metres of any— <ul style="list-style-type: none"> (i) river, burn, ditch, or loch as measured from the top of the bank, (ii) wetland, (iii) spring that supplies water for human consumption, (iv) well or borehole that is not capped in such a way so as to prevent ingress of water, or (v) transitional water or coastal water, as measured from the shoreline, 	<p>must be prevented,</p> <ul style="list-style-type: none"> (b) livestock must be prevented from entering any land that is within 5 metres of any spring or borehole that supplies water for human consumption or within 5 metres of any well or borehole that is not capped in such a way so as to prevent the ingress of water, (c) livestock feeders must not be positioned within 10 metres of any— <ul style="list-style-type: none"> (i) river, burn, ditch, or loch, as measured from the top of the bank, (ii) wetland,

	<ul style="list-style-type: none"> (iii) spring that supplies water for human consumption, (iv) well or borehole that is not capped in such a way so as to prevent ingress of water, or (v) transitional water or coastal water, as measured from the shoreline, and (d) run-off from land on which livestock congregate to access watering points or feeders must be intercepted (by means of a sufficient buffer zone or otherwise) such that any faeces, urine or soil in the run-off are prevented from entering any spring, well, borehole, surface water or wetland.
<p>20. Cultivation of land.</p>	<ul style="list-style-type: none"> (a) No land may be cultivated for crops that is— <ul style="list-style-type: none"> (i) within 2 metres of any— <ul style="list-style-type: none"> (1) river, burn, ditch or loch, as measured from the top of the bank, (2) wetland, or (3) transitional water or coastal water, as measured from the shoreline (ii) within 5 metres of any— <ul style="list-style-type: none"> (1) spring that supplies water for human consumption, (2) well or borehole that is not capped in such a way so as to prevent the ingress of water, (ii) waterlogged, (b) moling of land must not be carried out on slopes that: <ul style="list-style-type: none"> (i) have an overall gradient in excess of 4.5°, and (ii) slope towards any surface water or wetland, and (c) land must be cultivated in a way that minimises the risk of the introduction of substances or heat to any surface water or wetland which may give rise to <u>harm to the water environment</u>.
<p>21. Without prejudice to the operation of activities 10A, 10B, 10C and 10D, and the rules related to them, the discharge of water run-off via a surface water drainage system to the water environment as a result</p>	<ul style="list-style-type: none"> (a) water must be discharged in a way which minimises the risk of the introduction of any substance or heat to any river, burn, ditch, wetland, loch, transitional water or coastal

<p>of rural land activities.</p>	<p>water that may give rise to harm to the water environment, and</p> <p>(b) no discharge from drainage may result in the destabilisation of the banks or bed of the receiving river, burn, ditch, wetland, loch, transitional water or coastal water.</p>
<p>22. The discharge of water run-off from water-bound roads to the water environment, including during the construction and maintenance of such roads and tracks.</p>	<p>(a) All reasonable steps must be taken to ensure that any discharge does not result in the introduction of substances or heat to the water environment that may give rise to harm to the water environment,</p> <p>(b) any discharge must not result in visible discolouration, iridescence, foaming or sewage fungus in the water environment, and</p> <p>(c) any discharge must not result in the destabilisation of the banks or bed of the receiving surface water.</p>
<p>23. The storage and application of pesticides that are plant protection products</p>	<p>(a) The preparation of pesticide for application and the filling, cleaning or maintenance of pesticide sprayers or other devices used to apply pesticides:</p> <p>(i) must be undertaken in a manner which prevents any spillages, runoff or washings from entering any surface water or wetland, and</p> <p>(ii) must not be undertaken within 10 metres of and</p> <p>(1) river, burn, ditch or loch, as measured from the top of the bank,</p> <p>(2) wetland,</p> <p>(3) transitional water or coastal water, as measured from the shoreline, or</p> <p>(4) opening into a surface water drainage system,</p> <p>(b) pesticide sprayers and other devices used to apply pesticides must be maintained in a good state of repair, such that there is no leakage of pesticide from any part of the equipment and the sprayer is calibrated to accurately deliver the required application rate,</p> <p>(c) pesticide sprayers and other devices used to apply pesticide must not be filled with water taken from any</p>

river, burn, ditch, wetland or loch unless:

- (i) a device preventing back siphoning is fitted to the system, or
 - (ii) the water is first placed in an intermediate container,
- (d) pesticide-treated plants must not be stored or soaked in any river, burn, ditch, wetland or loch,
- (e) pesticide must be applied in accordance with the terms and instructions of the relevant product approval,
- (f) unless in accordance with paragraph (g), pesticide must not be applied in, onto or over ground or allowed to drift onto or over ground—
- (i) that is frozen, snow covered or waterlogged, except where the application in, onto or over waterlogged ground is necessary for the purpose of controlling fungal disease and all precautions are taken to minimise the risk of pesticide entering any river, burn, ditch, wetland, loch, transitional water or coastal water,
 - (ii) that is within 1 metre of any river, burn, ditch, wetland or loch, as measured from the top of the bank, or within 1 metre of any transitional water or coastal water as measured from the shoreline,
 - (iii) that is sloping, unless it is ensured that any run-off of pesticide is intercepted (by means of a sufficient buffer zone or otherwise) to prevent it from entering any river, burn, ditch, wetland, loch, transitional water or coastal water towards which the land slopes,
 - (iv) that is within 50 metres of any spring that supplies water for human consumption,
 - (v) that is within 50 metres of any well or borehole unless the well or borehole is

- capped in such a way as to prevent the ingress of the pesticide,
- (vi) that has an impermeable surface which drains directly into a surface water drainage system, unless measures are taken to minimise the risk of pesticides entering the drainage system, or
 - (vii) along roads, railway lines, permeable surfaces or other infrastructure, unless measures are taken to minimise the risk of the introduction of any substance or heat to any river, burn, ditch, wetland, loch, transitional water, coastal water or surface water drainage system that may result in harm to the water environment, and
- (g) pesticide may be applied within 1 metre of any river, burn, ditch or loch, as measured from the top of the bank, within 1 metre of any wetland, or within 1 metre of any transitional water or coastal water as measured from the shoreline where—
- (i) they are specifically approved for aquatic use under Regulation (EC) No 1107/2009 of the European Parliament and of the Council concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC^(a) and are applied in accordance with the terms of that approval,
 - (ii) the application is for the sole purpose of controlling an invasive species of plant outwith its native range,
 - (iii) no pesticide enters the river, burn, ditch, wetland, loch, transitional water or coastal water,
 - (iv) the ground over or onto which pesticide is applied is

(a) EUR 2009/1107 as amended by S.I. 2019/556.

not—

(aa) frozen or snow-covered,

(bb) waterlogged,

except where the application in, onto or over waterlogged grounds is necessary for the purpose of controlling American skunk cabbage (*Lysichiton americanus*) and all precautions are taken to minimise the risk of pesticide entering any river, burn, ditch, wetland, loch, transitional or coastal water,

(v) the ground over or onto which plant protection product is applied is not an impermeable surface which drains directly into a surface water drainage system unless measures are taken to minimise the risk of pesticide entering the drainage system,

(vi) the ground over or onto which pesticide is applied is not within 50 metres of any spring that supplies water for human consumption,

(vii) the ground over or onto which pesticide is applied is not within 50 metres of any well or borehole unless the well or borehole is capped in such a way as to prevent the ingress of the pesticide,

(viii) the application, including the method used, is designed to minimise damage to other, non-target, vegetation,

(ix) all necessary steps are taken to ensure that the application does not result in increased erosion of the banks of the river, burn, or loch or the shoreline of the transitional water or coastal water, and

(x) there is no abstraction of water intended for human consumption from the—

(1) river, burn or ditch, within 250 metres

	<p style="text-align: right;">downstream of the application, or</p> <p style="text-align: right;">(2) the loch or wetland within 250 metres of the application,</p> <p>(h) application of pesticide must be carried out in such a way, and at such times, that the risk of the introduction of any substance or heat to any river, burn, ditch, wetland, loch, transitional water or coastal water which may give rise to harm to the water environment is minimised and, in particular, pesticide must not be applied—</p> <p style="padding-left: 20px;">(i) during rainfall, or</p> <p style="padding-left: 20px;">(ii) during conditions when there is a risk that spray will drift or be blown outwith the target area</p> <p>(i) pesticide, including any used packaging that has been stored in contact with pesticide, must not be stored—</p> <p style="padding-left: 20px;">(i) within 10 metres of any—</p> <p style="padding-left: 40px;">(1) river, burn, ditch or loch, as measured from the top of the bank,</p> <p style="padding-left: 40px;">(2) wetland, or</p> <p style="padding-left: 40px;">(3) transitional water or coastal water, as measured from the shoreline,</p> <p style="padding-left: 20px;">(ii) within 50 metres of any spring that supplies water for human consumption, or</p> <p style="padding-left: 20px;">(iii) within 50 metres of any well or borehole (unless the well or borehole is capped in such a way as to prevent the ingress of any pesticide),</p> <p>unless the pesticide or used packaging is stored in such a way that any leakage or spillage and any exposed pesticide on used packaging cannot reach any river, burn, ditch, wetland, loch, transitional water, coastal water or any opening into a surface water drainage system, including by being transported in rainwater runoff,</p> <p>(j) pesticide, including any used packaging that has been stored in contact with pesticide, must not be stored on an impermeable surface draining to a surface water drainage</p>
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<p>24. Operating sheep dipping facilities, and operating sheep handling facilities where:</p> <ul style="list-style-type: none"> (a) sheep are held immediately after dipping, (b) pour-on parasite treatments are applied, or (c) sheep are held immediately after the application of pour-on treatments. 	<p>system.</p> <ul style="list-style-type: none"> (a) Sheep must be prevented from having access to any surface water or wetland while there is a risk of transfer of sheep dip fluid or any pour-on parasite treatment from their fleece to such places, (b) no mobile sheep dipping facility, or part of any sheep dipping facility constructed on or after 1st April 2008 or sheep handling facility used for pour-on treatments constructed on or after 1st January 2018 may be located within 50 metres of any— <ul style="list-style-type: none"> (i) river, burn, ditch, or loch as measured from the top of the bank, (ii) wetland, (iii) transitional water or coastal water, as measured from the shoreline, or (iv) well, spring or borehole, (c) sheep dipping facilities must not discharge underground and must not leak or overspill, (d) sheep dipping facilities must not be filled with water taken from the water environment unless— <ul style="list-style-type: none"> (i) a device preventing back siphoning is fitted to the system, or (ii) the water is first placed in an intermediate container, and (e) without prejudice to the continued requirement to obtain specific authorisation for the disposal of sheep dip under these Regulations, sheep dip facilities must be emptied within 24 hours following completion of dipping.
<p>25. Bank works using the placement of trees or parts of trees in any river, burn, ditch or loch.</p>	<ul style="list-style-type: none"> (a) the trees or parts of trees must be placed only in or along banks, (b) the placement must result in an arrangement of live or dead tree stems, branches or roots which, as the water flows through the arrangement, flex or bend and impede its flow with the effect of cushioning the bank from the force of the river, burn, ditch or loch, (c) the placed trees or parts of trees must be tied, keyed or staked into the bank or bed of the river, burn, ditch or loch so as to secure them in place, (d) the placed trees or parts of trees must

	<p>be graded smoothly into the existing line of the bank.</p> <p>(e) in protecting banks—</p> <p>(i) the angle or profile of the bank may only be altered for the purpose of enabling the establishment and growth of trees or the placement of trees or parts of trees,</p> <p>(ii) stones may be placed at the toe of the bank for the purpose of preventing the bank being undercut before the trees have become established, provided that any stones used are no larger than the largest stones that have been deposited on the bed within 500 metres of the bank</p> <p>(f) all reasonable steps must be taken whilst placing the trees or parts of trees to—</p> <p>(i) prevent any exposed soil or other sediments from entering the river, burn, ditch or loch, and</p> <p>(ii) where soil or other sediments do enter the river, burn, ditch or loch, prevent these from being transported beyond the part of the bank being protected,</p> <p>(g) once the trees or parts of trees have been placed, any areas of bare earth on the banks resulting from the works must be re-vegetated to minimise the risk of soil erosion, either by covering with grass turfs or lining with a biodegradable geotextile and seeding, and</p> <p>(h) where the trees or parts of trees need to be placed on the wetted part of the bed of the river, burn, ditch or loch or their placement would otherwise be likely to disturb the wetted part of the bed of the river, burn, ditch or loch they must not be placed if there is a reasonable likelihood that there are freshwater pearl mussels in the part of the river, burn, ditch or loch that would be affected.</p>
<p>26. The storage of oil, which is not waste oil, in a portable container with a capacity of less than 200 litres.</p>	<p>The container must be of sufficient strength and structural integrity so as to ensure that it is unlikely to burst or leak in its ordinary use.</p>

27.	<p>The storage of oil on premises used as a private dwelling (except where the premises is a vehicle or vessel), where the oil is—</p> <p>(a) stored in a container with a capacity of 2,500 litres or less, and</p> <p>(b) used solely to serve a fixed combustion appliance installation providing space heating or cooking facilities.</p>	<p>(a) The container must be of sufficient strength and structural integrity so as to ensure that it is unlikely to burst or leak in its ordinary use, and</p> <p>(b) any container which is installed or altered must comply with the requirements of any applicable regulations under the Building (Scotland) Act 2003(a).</p>
28.	<p>The storage of oil, other than waste oil, on premises other than:</p> <p>(a) where the premises is a vehicle or vessel</p> <p>(b) where the storage is:</p> <p>(i) an activity specified at activities 26 or 27 of Column 1 of this schedule, or</p> <p>(ii) otherwise authorised under these Regulations,</p> <p>(c) in a container which is wholly underground (unless situated wholly within a building underground).</p>	<p>(a) The oil must be stored in a container which is of sufficient strength and structural integrity, and has been installed so as to ensure that it is unlikely to burst or leak in its ordinary use,</p> <p>(b) the container must be situated within a secondary containment system which</p> <p>(i) subject to paragraph (e), must have a capacity of not less than 110% of the container's storage capacity or, if there is more than one container within the system, of not less than 110% of the largest container's storage capacity, or 25% of the aggregate storage capacity, whichever is greater,</p> <p>(ii) it must be positioned, or other steps taken, so as to minimise any risk of damage to it by impact so far as is reasonably practicable,</p> <p>(iii) its base and walls must be impermeable to water and oil,</p> <p>(iv) its base and walls must not be penetrated by any valve, pipe or other opening which is used for draining the system, and</p> <p>(v) if a fill pipe or draw off pipe penetrates its base or any of its walls, all points at which the pipe meets the base or wall must be adequately sealed to prevent oil escaping from the system,</p>

(a) 2003 asp 8.

- (c) any valve, filter, sight gauge, vent pipe or other equipment ancillary to the container (other than a fill pipe or draw off pipe or a pump) must be situated within the secondary containment system,
- (d) if the connection point to a fill pipe is not within the secondary containment system, a drip tray must be used to catch any oil spilled when the container is being filled with oil,
- (e) where any drum is used for the storage of the oil in conjunction with a drip tray as a secondary containment system, it is sufficient if the tray has a capacity of not less than 25% of:
 - (i) the drum's storage capacity, or
 - (ii) if there is more than one drum used at the same time with the tray, the aggregate storage capacity of the drums
- (f) where a fixed tank is used for storing oil:
 - (i) any sight gauge must be properly supported and fitted with a valve which closes automatically when not in use,
 - (ii) any fill pipe, draw off pipe or overflow pipe must:
 - (1) be positioned or other steps taken, so as to minimise any risk of damage by impact so far as is reasonably practicable,
 - (2) if made of materials which are liable to corrosion, be adequately protected against corrosion, and
 - (3) not be permeable to hydrocarbon vapours,
 - (iii) if underground, any fill pipe, draw off pipe or overflow pipe must:
 - (1) have no mechanical joints, except at a place where such joints are accessible for inspection by removing a hatch or cover,

- (2) be adequately protected from physical damage
- (3) have adequate facilities for detecting any leaks,
- (4) if fitted with a leakage detection device which is continuously to monitor for leaks the detection device must be maintained in working order and tested at the appropriate intervals, and at least every 5 years, to ensure that it works properly, and
- (5) if not fitted with a leakage detection device, must be tested for leaks before it is first used and further tests for leaks must be performed in the case of pipes which have mechanical joints, at least once every 5 years, and in other cases, at least once in every 10 years,
- (iv) if above ground, any fill pipe, draw off pipe or overflow pipe must be properly supported,
- (v) the tank must be fitted with an automatic overflow prevention device (which may include an alarm sounding device) if the filling operation is controlled from a place where it is not reasonably practicable to observe the tank or any vent pipe,
- (vi) where a screw fitting or other fixed coupling is fitted, it must be maintained in good condition and used whenever the tank is being filled with oil,
- (vii) where oil from the tank is delivered through a flexible pipe which is permanently attached to the container or

delivery pump:

- (1) the pipe must be fitted with a tap or valve at the delivery end which closes automatically when not in use,
- (2) the tap or valve must not be capable of being fixed in the open position unless the pipe is fitted with an automatic shut off device,
- (3) the pipe must—
 - (a) be enclosed in a secure cabinet (equipped with a drip tray) which is locked shut when not in use, or
 - (b) have a lockable valve where it leaves the container, which is locked shut when not in use, or
 - (c) be situated in premises which have appropriate security to prevent unauthorised access, and
- (4) where sub-paragraph 3(b) or (c) applies, the pipe must be kept within the secondary containment system or positioned above an area which drains to a suitable oil interceptor when not in use,

(viii) any pump must be:

- (1) fitted with a non-return valve or an isolating device in its feed line,
- (2) positioned or other steps must be taken, so as to minimise any risk of damage to it so far as is reasonably practicable, and
- (3) protected from unauthorised use, and
- (ix) any permanent vent pipe, tap or valve through which oil can be discharged from the tank to the open must be:
 - (1) Situated within the secondary containment system
 - (2) arranged so that any oil discharged from the tank other than to its intended destination is contained within the system, and
 - (3) in the case of a tap or valve, fitted with a lock and locked shut when not in use, an
- (g) where a mobile bowser is used for storing oil:
 - (i) any tap or valve permanently fixed to the bowser through which oil can be discharged to the open must be fitted with a lock and locked shut when not in use,
 - (ii) where oil is delivered through a flexible pipe which is permanently attached to the mobile bowser:
 - (1) the pipe must be fitted with a manually operated pump or a valve at the delivery end which automatically closes when not in use,
 - (2) the pump or valve must be provided with a lock and

		<p>locked shut when not in use, and</p> <p>(3) the pipe must be fitted with a lockable valve at the end where it leaves the container and must be locked shut when not in use, and</p> <p>(iii) any sight gauge must be secured to the mobile bowser and be fitted with a valve or tap which must be locked in the shut position when not in use.</p>
29.	The making and storage of silage in bales or bulk bags.	<p>(a) The bales or bulk bags must not be stored, opened, or unwrapped within 10 metres of any—</p> <p>(i) river, burn, ditch or loch, as measured from the top of the bank,</p> <p>(ii) wetland,</p> <p>(iii) transitional water or coastal water, as measured from the shoreline, or</p> <p>(iv) opening into a surface water drain which silage effluent could enter if it were to escape,</p> <p>(b) the bulk bags must—</p> <p>(i) have an impermeable membrane,</p> <p>(ii) be resealed when not in use, to prevent the escape of silage effluent,</p> <p>(iii) incorporate a facility to enable the removal of any excess effluent without spillage, and</p> <p>(iv) be situated on a firm level surface,</p> <p>(c) the bales must be wrapped and sealed into impermeable membranes or enclosed in impermeable bags.</p>
30.	The treatment of silage effluent which consists mainly of rainwater by draining it from a silo through a constructed farm wetland.	<p>(a) Silage effluent which consists mainly of rainwater may be drained through a constructed farm wetland only if—</p> <p>(i) the silo is open for use,</p> <p>(ii) the drainage of the silage effluent from the silo to the constructed farm wetland is direct and through a separate channel or pipe from the base of the silo,</p>

		<p>(iii) no crop is added to the silo whilst it is open.</p> <p>(b) where a constructed farm wetland is to be constructed or substantially rebuilt or enlarged—</p> <p>(i) the authorised person must give notice to SEPA of the works not later than 30 days prior to any work commencing, and</p> <p>(ii) the notice in sub-paragraph (i) must be accompanied by an engineering plan for the works to be carried out.</p>
31.	The making and storage of silage other than in bales or bulk bags.	<p>(a) Silage must be made and stored in a silo which—</p> <p>(i) complies with paragraphs (b) to (g),</p> <p>(ii) if constructed, or substantially reconstructed or enlarged, on or after 1 September 1991, in addition to paragraph (a)(i), complies with paragraphs (h) to (j),</p> <p>(iii) if new (including a silo constructed from used materials), or substantially reconstructed or enlarged, on or after 1 January 2022, has a life expectancy of at least 20 years, with proper maintenance, from its construction, reconstruction or enlargement,</p> <p>(b) the base of the silo must be constructed with channels to collect silage effluent from the silo, and with channels or pipes which must drain any such silage effluent to an effluent tank,</p> <p>(c) the capacity of the effluent tank must be at least—</p> <p>(i) for a silo with a capacity of less than 1500m³, 20 litres for every 1m³ of silo capacity, or</p> <p>(ii) for a silo with a capacity of 1500m³ or greater, 30,000 litres, plus 6.7 litres for every 1m³ of silo capacity</p>

over 1500m³,

- (d) where the effluent collection system associated with the silo incorporates a system of pumps and sumps, it must be fitted with an automatic overflow prevention device with a dedicated electrical supply and an alarm,
- (e) the base of the silo, the base and walls of its effluent tank and channels, and the walls of any pipes must be impermeable,
- (f) the base and any walls of the silo, its effluent tank and channels, and the walls of any pipes must, so far as reasonably practicable, be resistant to attack by silage effluent and, where the walls are made of earth, they must be lined with an impermeable membrane of 1000 gauge polyethylene or a material of at least equivalent impermeability and durability,
- (g) if the silo has retaining walls which are not made of earth, the stored silage level within that silo once compacted must be managed so that the retaining walls of the silo are not overloaded,
- (h) the base of any silo constructed, or substantially reconstructed or enlarged, on or after 1 September 1991 must, in addition to paragraph (b)—
 - (i) comply with British Standard EN 1992-3:2006(a) and British Standard EN-1-1-2004 +A1:2014 (for concrete bases)(b), or British Standard EN 13108-4:2016 (for hot-rolled asphalt bases)(c),
 - (ii) where the silo has retaining walls made other than of earth, extend beyond those walls and be provided with channels designed and constructed so as to collect any effluent which may escape from the silo and adequate provision must be made for drainage of that

(a) Published by the British Standards Institution on 31 July 2006 (ISBN 0-580-48267-7).

(b) Published by the British Standards Institution on 23 December 2004 (ISBN 978-0-580-83726-5).

(c) Published by the British Standards Institution on 28 February 2018 (ISBN 978-0-580-52033-4).

effluent from the channels to an effluent tank through a channel or pipe,

- (i) where any part of an effluent tank constructed, or substantially reconstructed or enlarged, on or after 1 September 1991 is installed below ground level, it must be designed and constructed in accordance with the Code of Practice on Buildings and Structures for Agriculture published by the British Standards Institution and numbered BS 5502-22:2003+A1:2013(a),
- (j) a silo constructed, or substantially reconstructed or enlarged, on or after 1 September 1991, which has retaining walls which are not made of earth, must have retaining walls capable of withstanding the minimum wall loadings calculated in accordance with the Code of Practice on Buildings and Structures for Agriculture published by the British Standards Institution and numbered BS 5502-22:2003+A1:2013,
- (k) a silo constructed (including from used materials), or substantially reconstructed or enlarged, on or after 1 January 2022, which has retaining walls which are not made of earth, must have the maximum loadings of the silo visibly displayed on it,
- (l) a silo, its effluent tank, channels and any associated pipes constructed on or after 1 January 2022 must not be situated within 10 metres of any surface water or opening into a surface water drain which silage effluent could enter if it were to escape,
- (m) the silo, its effluent tank, channel and pipes must be operationally maintained to be free of any structural defects during its lifecycle,
- (n) the silo must not be filled beyond the drainage channel,
- (o) where a silo or effluent tank is to be constructed or to be substantially rebuilt or enlarged—
 - (i) the operator must give notice to SEPA of the

		<p>works no later than 30 days prior to commencing the works,</p> <p>(ii) the notice under subparagraph (i) must be accompanied by an engineering plan for the works to be carried out,</p> <p>(iii) the operator must retain the engineer's final sign-off certificate for the works for the lifetime of the silo or effluent tank, for inspection by SEPA on request.</p>
32.	The storage of slurry.	<p>(a) Where slurry is produced on the farm by housed livestock from dungsteeds or from dirty yards, the slurry must be stored in a slurry storage system, liquid digestate storage system, or slurry bags which have sufficient capacity to store the total quantity of slurry likely to be produced in—</p> <p>(i) 26 weeks by housed pigs, or</p> <p>(ii) 22 weeks by housed cattle,</p> <p>taking account of any additional inputs to or exports from the storage as described in paragraph (c),</p> <p>(b) the total quantity of slurry referred to in paragraph (a) is to be calculated by adding up the figures produced for each type of livestock, as applicable, in accordance with the formula for housed pigs or housed cattle, contained in regulation 7(2) of the Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008(a),</p> <p>(c) in calculating the minimum storage capacity necessary to comply with paragraph (a), the following figures must be included in respect of the relevant 26- or 22-week period—</p> <p>(i) the quantity of any rainfall (including any fall of snow, hail or sleet) that is likely to enter the system (directly or indirectly) including from dungsteeds, silage pits or dirty yards,</p> <p>(ii) the quantity of any cleaning water that is likely to enter</p>

(a) S.S.I. 2008/298, as amended by S.S.I. 2008/394, S.S.I. 2009/447, S.S.I. 2011/228, S.S.I. 2012/360, S.S.I. 2013/123 and S.S.I. 2015/376.

- (iii) the system or slurry bag, the likely quantity of any imported slurries and liquid digestate added to the system or slurry bag,
- (iv) the quantity of any slurry exported off farm,
- (d) where slurry is imported onto the farm, there must be sufficient storage capacity on the farm to store the quantities imported during periods when application is not authorised under activity 18 of column 1 of this schedule or would not comply with the requirements of the Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008,
- (e) the capacity of any facility used for the temporary storage of slurry before it is transferred to a slurry storage tank must be the equivalent of at least 1.5% of the minimum on farm storage capacity in accordance with paragraph (a),
- (f) the slurry storage system must—
 - (i) comply with paragraphs (g) to (l),
 - (ii) where constructed, or substantially reconstructed or enlarged, on or after 1 September 1991, comply, in addition to paragraph (f)(i), with paragraphs (m) and (n),
 - (iii) if new (including systems constructed from used materials), substantially reconstructed or enlarged, on or after 1 January 2022, have a life expectancy of at least 20 years with proper maintenance, from its construction, reconstruction or enlargement,
- (g) the base and walls of any slurry storage tank, any channels and reception pit, and the walls of any pipes, must be impermeable (except where the conditions in paragraph (j) are complied with) and free from any cracks or structural defects,

- (h) where slurry flows into a channel before discharging into a reception pit, and the flow is controlled by means of a sluice or valve, the capacity of the reception pit must be sufficient to store the maximum quantity of slurry which can be released by opening the sluice or valve,
- (i) the slurry storage tank, channels, pipes, valves, and reception pit must be operationally maintained to be free of any structural defects during their lifecycle,
- (j) where the walls of the slurry storage tank are not impermeable—
- (i) the base of the tank must extend beyond its walls and be provided with channels designed and constructed so as to collect any slurry which may escape from the tank,
 - (ii) the tank must have adequate provision to collect, drain and store slurry from the channels to a slurry storage system,
- (k) where the slurry storage tank or reception pit is fitted with a drainage pipe—
- (i) there must be two valves in series on the pipe and each valve must be capable of stopping the flow of slurry through the pipe and must be kept shut and locked in that position when not in use,
 - (ii) sub-paragraph (i) does not apply in relation to a slurry storage tank which drains through the pipe into another slurry storage tank of equal or greater capacity or where the tops of the tanks are at the same level,
- (l) where a slurry storage system has walls which are made of earth, the system must not be filled to a level which allows less than 750 millimetres of freeboard, and in all other cases the slurry storage tank must not be filled to a level which allows less than 300 millimetres of freeboard,

- (m) the base and walls of any slurry storage tank, channels and reception pit, valves, and the walls of any pipes, constructed, or substantially reconstructed or enlarged, on or after 1 September 1991 must be protected against corrosion in accordance with paragraph 7.2 of the Code of Practice on Buildings and Structures for Agriculture published by the British Standards Institution and numbered BS 5502-50:1993+A2:2010(a),
- (n) the base and walls of any slurry storage tank and any reception pit constructed, or substantially reconstructed or enlarged, on or after 1 September 1991, must be capable of withstanding characteristic loads calculated on the assumptions and in the manner as set out in paragraph 5 of the Code of Practice on Buildings and Structures for Agriculture published by the British Standards Institution and numbered BS 5502-50:1993+A2:2010,
- (o) any slurry storage system, constructed, or substantially reconstructed or enlarged, on or after 1 January 2022, which has walls made of earth, must be lined with an impermeable sheet material which, with proper maintenance, slurry cannot permeate for a period of at least 20 years,
- (p) a slurry storage system constructed on or after 1 January 2022 must not be situated within 10 metres of any surface water or opening into a surface water drain which slurry could enter into if it were to escape,
- (q) a slurry bag may only be used to store slurry if—
 - (i) the bag is constructed of impermeable material of sufficient strength and structural integrity such that it is unlikely to burst or leak in its ordinary use, and
 - (ii) it is situated in a bund which complies with the following requirements—
 - (1) the bund must be of at least equivalent capacity to the slurry

		<p>bag,</p> <p>(2) the bund must be lined with an impermeable sheet material which, with proper maintenance, slurry cannot permeate for a period of at least 20 years,</p> <p>(3) the bund must have a means of removing rainwater, and</p> <p>(4) other than as necessary to allow rainwater to be removed, the base and walls of the bund must not be penetrated by any valve, pipe or other opening,</p> <p>(r) where a slurry storage system (including a reception pit or channels) is to be constructed or to be substantially rebuilt or enlarged—</p> <p>(i) the operator must give notice to SEPA of the works no later than 30 days prior to commencing the works,</p> <p>(ii) the notice under subparagraph (i) must be accompanied by an engineering plan for the works to be carried out,</p> <p>(iii) the operator must retain the engineer's final sign-off certificate for the works for the lifetime of the slurry storage system, for inspection by SEPA on request,</p> <p>(s) slurry may be stored in a liquid digestate storage system which complies with the rules in column 2 of activity 34 of this schedule in relation to the storage of liquid digestate.</p>
33.	The treatment of slurry which consists mainly of rainwater and washings by draining through a constructed farm wetland.	<p>(a) Slurry may be drained through a constructed farm wetland only if it consists mainly of rainwater and washings which derive from—</p> <p>(i) a midden which mainly contains farmyard manure and is situated where its contents can be affected</p>

		<p>(ii) directly by precipitation, any uncovered yard, used by livestock to move from one area to another but not including areas covered by paragraph (b),</p> <p>(iii) a yard which is used for the gathering or holding of livestock no more than once a week and which can be directly affected by precipitation,</p> <p>(b) slurry must not be drained through a constructed farm wetland from areas—</p> <p>(i) where livestock are gathered or held more than once a week, or</p> <p>(ii) used for livestock movement or holding prior to, during or after being—</p> <p>(1) milked,</p> <p>(2) housed, or</p> <p>(3) fed,</p> <p>(c) slurry which contains pesticide must not be drained through a constructed farm wetland,</p> <p>(d) all reasonable steps must be taken to ensure that the drainage of slurry through a constructed farm wetland does not result in the introduction of any substance or heat to the water environment which may give rise to harm to the water environment.</p> <p>(e) where a constructed farm wetland is to be constructed or to be substantially rebuilt or enlarged—</p> <table border="1" data-bbox="901 1417 1361 1935"> <tr> <td data-bbox="901 1417 1134 1675">(i)</td> <td data-bbox="1134 1417 1361 1675">the operator must give notice to SEPA of the works no later than 30 days prior to commencing the works,</td> </tr> <tr> <td data-bbox="901 1675 1134 1935">(ii)</td> <td data-bbox="1134 1675 1361 1935">the notice under sub-paragraph (i) must be accompanied by an engineering plan for the works to be carried out.</td> </tr> </table>	(i)	the operator must give notice to SEPA of the works no later than 30 days prior to commencing the works,	(ii)	the notice under sub-paragraph (i) must be accompanied by an engineering plan for the works to be carried out.
(i)	the operator must give notice to SEPA of the works no later than 30 days prior to commencing the works,					
(ii)	the notice under sub-paragraph (i) must be accompanied by an engineering plan for the works to be carried out.					
34.	Storage of liquid digestate unless the storage is authorised by a permit or registration under these Regulations.	(a) Where liquid digestate is produced on the farm, it must be stored in a liquid digestate storage system, slurry				

- storage system or slurry bag which has sufficient capacity to accommodate the volume of liquid digestate produced during periods when application is not authorised under activity 18 of column 1 of this schedule or would not comply with the requirements of the Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008,
- (b) where liquid digestate is imported onto a farm, it must be stored in a liquid digestate storage system, slurry storage system or slurry bag which has sufficient capacity to store the quantities imported during periods when application is not authorised under activity 18 of column 1 of this schedule or would not comply with the requirements of the Action Programme for Nitrate Vulnerable Zones (Scotland) Regulations 2008,
- (c) in calculating the required storage capacity, the following figures must be included—
- (i) the quantity of any rainfall (including any fall of snow, hail or sleet that is likely to enter the system or slurry bag (directly or indirectly) including from dungsteeds, silage pits or dirty yards,
 - (ii) the quantity of any cleaning water that is likely to enter the system or slurry bag,
 - (iii) the quantity of any slurry from housed livestock,
 - (iv) the likely quantity of any imported slurries and liquid digestate added to the system or slurry bag,
 - (v) the quantity of any liquid digestate exported off farm,
- (d) a liquid digestate storage system must,
- (i) comply with paragraphs (e) to (k),
 - (ii) if new (including systems constructed from used materials), or substantially reconstructed or enlarged, on or after 1 January 2022, have a life expectancy of at least 20 years, with proper maintenance, from its

- construction, reconstruction or enlargement,
- (e) the base and walls of the liquid digestate storage tank and the walls of any feedstock tank, channels and pipes must be impermeable,
 - (f) the base and walls of the liquid digestate storage tank and feedstock tank, valves and the walls of any pipes must be protected against corrosion in accordance with paragraph 7.2 of the Code of Practice on Buildings and Structures for Agriculture published by the British Standards Institution and numbered BS 5502-50:1993+A2:2010(a),
 - (g) the base and walls of the liquid digestate storage tank and any feedstock tank must be capable of withstanding characteristic loads calculated on the assumptions and in the manner as set out in paragraph 5 of the Code of Practice on Buildings and Structures for Agriculture published by the British Standards Institution and numbered BS 5502-50:1993+A2:2010,
 - (h) the liquid digestate storage system must not be situated within 10 metres of any surface water or opening into a surface water drain which liquid digestate could enter if it were to escape,
 - (i) the liquid digestate tank, pipes, valves and feedstock tank must be operationally maintained to be free of any structural defects during their lifecycle,
 - (j) where the liquid digestate storage tank is fitted with a drainage pipe—
 - (i) there must be two valves in series on the pipe and each valve must be capable of stopping the flow of liquid digestate through the pipe and must be kept shut and locked in that position when not in use,
 - (ii) sub-paragraph (i) does not apply in relation to a liquid digestate storage tank which drains through the pipe into another liquid digestate storage tank of equal or

- greater capacity or where the tops of the tanks are at the same level,
- (k) where a liquid digestate storage system includes a lagoon with walls which are made of earth, the lagoon must not be filled to a level which allows less than 750 millimetres of freeboard, and in all other cases the liquid digestate storage tank must not be filled to a level which allows less than 300 millimetres of freeboard,
 - (l) where a liquid digestate storage system constructed, or substantially reconstructed or enlarged, on or after 1 January 2022 includes a lagoon with walls which are made of earth, the lagoon must be lined with an impermeable sheet material which, with proper maintenance, liquid digestate cannot permeate for a period of at least 20 years,
 - (m) a slurry bag may only be used to store liquid digestate if—
 - (i) the bag is constructed of impermeable material, is of sufficient strength and structural integrity, and is unlikely to burst or leak in its ordinary use, and
 - (ii) it is situated in a bund which complies with the following requirements—
 - (1) the bund must be of at least equivalent capacity to the slurry bag,
 - (2) the bund must be lined with an impermeable sheet material which, with proper maintenance, liquid digestate cannot permeate for a period of at least 20 years,
 - (3) the bund must have a means of removing rainwater from it,
 - (4) other than as necessary to allow rainwater to be removed, the base and walls of the bund must not be penetrated by any valve, pipe or other

<p>35. The discharge of hot tub effluent, from a site with only one hot tub, to groundwater.</p>	<p style="text-align: right;">opening,</p> <p>(n) where a liquid digestate storage system is to be constructed or to be substantially rebuilt or enlarged—</p> <p>(i) the operator must give notice to SEPA of the works no later than 30 days prior to commencing the works,</p> <p>(ii) the notice under subparagraph (i) must be accompanied by an engineering plan for the works to be carried out, and</p> <p>(iii) the operator must retain for the lifetime of the liquid digestate storage system, for inspection by SEPA on request, the engineer's final sign-off certificate for the works,</p> <p>(o) liquid digestate may be stored in a slurry storage system which complies with the requirements in column 2 of activity 32 of this schedule in relation to the storage of slurry.</p> <p>(p) waste liquid digestate must only be stored at the place where it will be used.</p> <p>(a) The effluent must be de-brominated or de-chlorinated and cooled to 20 degrees centigrade or less prior to discharge,</p> <p>(b) the discharge must not be within 10 metres of any surface water and the effluent must not enter a surface water drain,</p> <p>(c) where the discharge to groundwater is made via a soakaway, the water table must be at least 1 metre below the base of the soakaway,</p> <p>(d) the discharge must be made more than 50 metres from a wetland directly dependent on groundwater, and</p> <p>(e) the discharge must not be within 50 metres of any wells, springs or boreholes that supply water for human consumption.</p>
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CHAPTER 3

Waste

1.	The temporary storage of waste, other than waste liquid digestate, at the place of production	<p>(a) The waste must be stored in a secure place in that all reasonable precautions must be taken to ensure that the waste cannot escape from the place of production, and the waste must be stored such that members of the public are unable to gain access to the waste.</p> <p>(b) Liquid waste must be stored in a container which is of sufficient strength and structural integrity to ensure that it is unlikely to burst or leak in its ordinary use.</p> <p>(c) The waste must not be stored at the place where it was produced for longer than 12 months, and</p> <p>(d) Any treatment of the waste must only be carried out to facilitate storage and onward transport of that waste for recovery or disposal.</p> <p>(e) Where more than 200 litres of waste oil is stored, storage must comply with the requirements of column 2 of activity 28 in Chapter 2.</p>
2.	Temporary Storage of Waste at a Place Owned or Occupied by the Producer	<p>(a) The storage and any treatment of waste must not be carried on in the course of providing a waste management service to another person.</p> <p>(b) The waste must be stored in a secure place in that all reasonable precautions must be taken to ensure that the waste cannot escape from the place where it is stored, and such that members of the public are unable to gain access to the waste.</p> <p>(c) where more than one type of waste is stored, the different types of waste are not mixed</p> <hr/> <p>(d) The waste must not be stored at that place for more than 12 months.</p> <p>(e) The total amount of solid waste stored at any one time must not exceed 50 m³.</p> <p>(f) The total amount of liquid waste stored at any one time must not exceed 5,000 litres.</p> <p>(g) Liquid waste must be stored in a container which is of sufficient strength and structural integrity to ensure that it is unlikely to burst or leak in its ordinary use.</p>

		<p>(h) Any treatment of the waste must only be carried out to facilitate storage and onward transport of that waste for recovery or disposal.</p> <p>(i) Where more than 200 litres of waste oil is stored, storage must comply with the requirements in column 2 of activity 28 in Chapter 2.</p>
3.	Temporary Storage of Waste at a Collection Point	<p>(a) The waste must be stored in a secure place in that all reasonable precautions must be taken to ensure that the waste cannot escape from the collection point, and such that members of the public are unable to gain access to the waste.</p> <p>(b) where more than one type of waste is stored, the different types of waste are not mixed.</p> <p>(c) The waste must not be stored at the collection point for more [12 months].</p> <p>(d) The total amount of solid waste stored at any one time must not exceed [50 cubic metres].</p> <p>(e) Except for WEEE, the total amount of hazardous waste stored at any one time must not exceed [5 cubic metres].</p> <p>(f) The total amount of liquid waste stored at any one time must not exceed [5,000 litres].</p> <p>(g) Liquid waste must be stored in a container which is of sufficient strength and structural integrity to ensure that it is unlikely to burst or leak in its ordinary use.</p> <p>(h) Any treatment of the waste must only be carried out to facilitate storage and onward transport of that waste for recovery or disposal.</p> <p>(i) Where more than 200 litres of waste oil is stored, storage must comply with the requirements in column 2 of activity 28 in Chapter 2.</p>
4.	The deposit of non-hazardous dredging sludges or sediment on or alongside the bank or towpath of inland waters from which they have been dredged	<p>(a) removed sediment and other matter must not be left on the bank or towpath as the case may be such that its placement heightens the banks.</p>

CHAPTER 4
Other Emissions Activities

1.	Using crushing and screening equipment	<p>1. Emissions—</p> <p>(a) Dust emissions must be minimised by—</p> <p>(i) containment,</p> <p>(ii) suppression using water.</p> <p>(b) There must be no visible dust emissions further than 10 metres from the place where the activity takes place.</p> <p>(c) Where the activity takes place inside a building, any such building must be as dust tight as possible and arrestment equipment for dust emissions must be used where necessary to ensure there are no visible dust emissions further than 10 metres from the building.</p> <p>(d) Noise emissions must not cause environmental harm.</p>
		<p>2. Dust arrestment—</p> <p>(a) Arrestment equipment for dust emissions must be—</p> <p>(i) designed to emit less than 50mg/m³ of dust, and</p> <p>(ii) fitted with a continuously indicative monitor which provides visual and audible notification when 75% of that emission limit is reached.</p> <p>(b) Arrestment equipment for dust emissions must be regularly inspected and maintained to ensure it is fully operational.</p>
		<p>3. Site design and infrastructure</p> <p>(a) Where the materials to be loaded or unloaded have the potential to generate dust, the loading and unloading of those materials must be shielded from wind.</p>

		<p>(b) Plant, materials and stockpiles must be in a location that is at least 10 metres away from the boundary of any neighbouring property.</p> <p>(c) Conveyors, and discharge points to and from conveyors, must be enclosed.</p> <p>(d) Crushing, grinding, screening and separation processes and associated plant must be enclosed, or water sprays must be in use when these processes are being carried out.</p> <p>(e) Drop heights must be minimised by using—</p> <p>(i) variable height conveyors,</p> <p>(ii) chutes.</p> <p>(f) The discharge point from conveyor to stockpile must have water spray bars in use.</p> <p>(g) The number of movements of materials must be minimised.</p> <p>(h) Stockpiles of potentially dust generating material must be—</p> <p>(i) fully covered, or</p> <p>(ii) shielded using wind-breaks, bunding or fencing.</p> <p>(i) There must be an adequate supply of water available for use as dust suppression.</p> <p>(j) All reasonable steps must be taken to ensure that the use of water for dust suppression does not result in the introduction of substances or heat to the water environment which may cause harm to the water environment.</p> <p>4. Stockpiles</p> <p>(a) Water suppression of stockpiles must take place regularly.</p> <p>(b) Stockpiles must be profiled so as to reduce wind-whipping.”</p>
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(k) In Part 2, paragraph 1—

(i) the existing paragraph becomes sub-paragraph (1),

(ii) before the definition for “barium eluting source”, insert—

““application” means the spreading, spraying, incorporating or injecting into or onto land,

“arrestment equipment” means equipment used to mitigate the effects of emissions,
“bank reprofiling” means the alteration of the slope of the bank of a river, burn, ditch or loch”,

“bed width” means the straight line distance that is between the opposite bank toes of a river burn or ditch, and which spans the bed of the river, burn or ditch, including any exposed bars and vegetated islands,

“buffer zone” means an area of land, where no storage or application of fertiliser or pesticide takes place, which intercepts (or would intercept) run-off from the storage or application of fertiliser or pesticide to prevent it from entering the water environment,”,

(iii) omit the definition for “disposed of in normal refuse”,

(iv) after the definition for “category 5 sealed source”, insert—

““channel width” means the straight line distance that is between opposite bank tops of a river, burn or ditch and which spans the bed of a river, burn or ditch, including any exposed bars and vegetated islands,”,

(v) after the definition for “Class C gaseous tritium light device”, insert—

““coal” includes lignite, coke, petroleum coke or any coal product,

“coke” means a black material made from coal that is used as fuel for heating,

“collection point” means a place which is used for the collection of waste by a person where the person does not—

(a) receive payment for collecting the waste,

(b) collect waste as its main business activity,

“constructed farm wetland” means a series of ponds for the treatment of slurry or silage effluent consisting mainly of rainwater, which have been constructed in such a manner that any discharge from the ponds does not pollute the water environment,

“container” means a single or double skinned fixed tank, a drum, a mobile bowser or (even if not connected to fixed pipe or fixed pipework) an intermediate bulk container,

“crop” includes any plant grown for a commercial purpose,

“crossing” means any structure which is constructed and installed for the purpose of supporting a footpath, cycle route or transport route across any river, burn, ditch or loch or any pipe, pipeline or cable which crosses over or underneath any river, burn, ditch or loch, but excluding temporary crossings, impounding works and culverts installed for land gain,

“cultivation” includes the preparation of land prior to planting, and the harvesting of any crop,

“designated mineral or mineral product” means—

(a) clay, sand and any other naturally occurring mineral other than coal,

(b) metallurgical slag,

(c) gypsum which is a by-product of any activity,

“dewatered” in relation to digestate or sewage sludge means digestate or sewage sludge which—

(a) has had liquid removed from it so that it consists of at least 20% dry material, and

(b) is capable of being stacked in a free-standing heap without slumping and without liquid draining from the heap,”,

(vi) after the definition for “disposed of in normal refuse”, insert—

““ditch” means an open channel which collects and conveys drainage water from surface or subsurface drainage to the wider surface water environment,

“draff” means the residue of grain after fermentation of the grain in a brewing or distilling process,

“draw off pipe” means a pipe used to withdraw oil from a container,

“drum” means an oil drum or similar container used for storing oil,”

(vii) after the definition for “electrodeposited source”, insert—

““farm” means land occupied as a unit for agricultural purposes,

“farmyard manure” means a mixture of bedding material and animal excreta in solid form arising from the housing of livestock (excepting such arising from the keeping of birds for the production of food),

“fertiliser” means any substance containing nutrients which is utilised on land to enhance plant growth, but excludes forestry brash,

“fill pipe” means a pipe used to deliver oil into a container,

“fixed tank” includes an intermediate bulk container which is connected to fixed pipework,

“forage crop” means any crop grown as food for livestock or for use in energy production,

“forest” means land of an area of more than 0.5 hectares—

(a) with a tree canopy cover of more than 20 percent,

(b) which is planted with trees, which trees collectively have the capacity to provide a tree canopy cover of more than 20 percent, or

(c) which meets all of the following criteria—

(i) it was used in the last 5 years as land described in paragraph (a),

(ii) it is to remain fallow of trees for a maximum of 4 consecutive years, and

(iii) when replanted with trees it will be replanted as land described in paragraph (b),

“forestry operations” means operations carried out on land with a tree canopy cover of more than 10 per cent over an area of more than 0.5 hectares,”

(viii) after the definition for “gaseous tritium light device”, insert—

““housed” means kept permanently or overwintered, indoors or outside, on a collection-based slurry system,

“impermeable sheet material” means—

(a) synthetic rubbers, EPDM (ethylene propylene diene monomer rubber) and butyl,

(b) plastics, including polyvinyl chloride, low density polyethylene and high-density polyethylene, and

(c) reinforced geomembrane,

“invasive species of plant outwith its native range” has the same meaning as in the Wildlife and Countryside Act 1981(a),

“instream structure” means any structure that occupies a portion of the bed of the river, burn, ditch including bed reinforcement, jetties, platforms, marinas, croys, groynes and other flow deflectors, but excluding temporary structures, bridge piers and impounding works,

“liquid digestate” means—

(a) whole digestate,

(b) the liquid fraction, or

(c) any run-off from the storage of fibrous residue, resulting from an anaerobic digestion process of a consistency that allows it to be pumped or discharged by gravity at any stage in the handling process,

(a) 1981 c. 69

“liquid digestate storage system” means—

- (a) a liquid digestate tank,
- (b) any feedstock tank used in connection with the liquid digestate tank, and
- (c) any channels and pipes used in connection with the liquid digestate tank or feedstock tank,

“liquid digestate tank” includes a lagoon or tower used for the storage of liquid digestate,

“livestock” means any animal kept for use or profit as part of a commercial enterprise,”

- (ix) after the definition for “medical or veterinary radioactive substance”, insert—

“moling” means a cultivation method if an implement is used to open a conduit within the soil along which water may flow,

“oil” means any kind of oil and includes fuel oil, waste oil and hydraulic oil,

“pesticide” has the same meaning as in section 16 of the Food and Environment Protection Act 1985(a),

“petroleum coke” means the solid non-volatile carbon residue left after the distillation and cracking of petroleum,

“place of production” means, in relation to any waste, the place where the waste was originally produced,

“plant protection products” means products, in the form in which they are supplied to the user, consisting of, or containing, active substances, safeners or synergists, and intended for one of the following uses—

- (a) protecting plants or plant products against all harmful organisms or preventing the action of such organisms, unless the main purpose of these products is considered to be for reasons of hygiene rather than for the protection of plants or plant products,
- (b) influencing the life processes of plants, such as substances influencing their growth, other than as a nutrient,
- (c) preserving plant products,
- (d) destroying undesired plants or parts of plants, except algae unless the products are applied on soil or water to protect plants,
- (e) checking or preventing undesired growth of plants, except algae unless the products are applied on soil or water to protect plants,

“precision equipment” means equipment capable of low emission, accurate application techniques including a dribble bar or band spreader, trailing hose, trailing shoe or direct injection,

“private dwelling” means any part of a building used or intended to be used as a dwelling,

“reception pit” means a pit used for the collection of slurry before it is transferred into a slurry storage tank or for the collection of slurry discharged from such a tank,”

- (x) after the definition for “relevant year”, insert—

“revetment” means a modification to a bank of a river, burn, ditch or loch that increases the resistance of the bank to lateral erosion,

“rip rap” means irregular shaped stones placed along a bank of a river, burn, ditch or loch for the purpose of increasing the resistance of the bank to erosion,

“rural land use activities” means agricultural, forestry or leisure activity,”

- (xi) omit the definition for “sealed source”,

- (xii) after the definition for “sea”, insert—

(a) 1985 c. 48 to which there are no relevant amendments.

““secondary containment system” means a drip tray, an area surrounded by a bund or catchpit, or any other system for preventing liquid which is no longer in its container from escaping from the place where it is stored or treated,”

(xiii) after the definitions for “sewer”, “public sewer”, “private sewer”, “sewage treatment works” and “sewage”, insert—

““silage” means any forage crop (including draff) which is being, or has been, conserved by fermentation or preservation (including the use of additives), or both,

“silage effluent” means—

(a) effluent produced from any forage crop which is being made or has been made, into silage,

(b) a mixture consisting wholly of or containing such effluent, rainwater or groundwater emanating from a silo, silage effluent collection system or drain,

“silo” means any structure used for making or storing silage,

“slurry” includes—

(a) excreta, including any liquid fraction, produced by livestock whilst in a yard or building (including woodchip corrals), and

(b) a mixture consisting wholly of or containing such excreta, bedding, feed residues, rainwater and washings from a building or yard used by livestock, dungsteads or middens, high level slatted buildings and weeping wall structures or any combination of these, provided such excreta is present,

“slurry storage system” means—

(a) a slurry storage tank,

(b) any reception pit and any effluent tank used in connection with the slurry storage tank, and

(c) any channels and pipes used in connection with the slurry storage tank, any reception pit or any effluent tank,

“slurry storage tank” includes a lagoon, pit (other than a reception pit) or tower used for the storage of slurry,”

(xiv) after the definition for “smoke detector”, insert—

““SUD system” has the same meaning as in section 59 of the Sewerage (Scotland) Act 1968(a),

“surface water drainage system” means a system, such as a SUD system that is used to collect and drain water run-off from one or more premises and transport it to, and discharge it into, the water environment, and may include, among other things, any surface water sewers and associated inlets, outfalls, gullies, manholes, oil interceptors, silt traps, and attenuation, settlement and treatment facilities,”

(xv) after the definition for “Table 1” and “Table 2”, insert—

““temporary crossing” means any crossing which will be removed within a period of 12 months beginning with the date on which its installation commences,

“temporary structure” means any structure, excluding impounding works, which will be removed within a period of 12 months beginning with the date on which its installation commences”

(xvi) after the definition for “thorium alloy”, insert—

““trade effluent” has the same meaning as in section 59 of the Sewerage (Scotland) Act 1968,

(a) 1968 c. 47, section 59 was amended by the Water Environment and Water Services (Scotland) Act 2003.

“trees or parts of trees” includes any root wads, brash, stakes made of live willow and willow spiling but does not include timber products or wood prepared for use in building or carpentry,”

(xvii) after the definition for “tritium source”, insert—

““trunk road” has the same meaning as in section 151 of the Roads (Scotland) Act 1984(a),

“uncultivated land” means land which has not been ploughed, rotovated or improved by management practices, but excludes land mounded for the purpose of planting riparian woodland),”

(xviii) after the definition for uranium or thorium compound”, insert—

““water for human consumption” means water that may be ingested by humans, used in the preparation of food or drink, or used in the cleaning of materials involved in the storage or consumption of food or drink,

“water-bound road” means a road or track constructed of coarse stone and fine aggregate to form a tightly bound semi-impervious surface,

“waterlogged” means soil which is at water retaining capacity, except in a forest where it means where water is visible on the soil surface,

“water run-off” means any water from rainfall or any meltwater from ice or snow flowing over or horizontally through the surface of the ground and any matter picked up by that water as it does so,

“well” includes a permeable underground collection tank,

“willow spiling” means live willow rods woven between live willow uprights driven into the bank or bed of a watercourse.”

(xix) after sub-paragraph (1), insert—

“(2) In this schedule—

(a) the activity of using crushing and screening equipment includes—

(i) using mobile and/or static plant to crush, grind or carry on other size reduction including breaking up (except for the cutting of stone) of, any designated mineral or mineral product, or the grading, screening or heating of any of those reduced materials,

(ii) using mobile and/or static plant to crush, grind or carry on other size reduction (with machinery designed for that purpose) of bricks, tiles or concrete and the screening of any of these reduced materials at the place the activity is carried on,

(iii) the temporary storage of materials prior to use or generated as part of the activity including the raw material feed, mid-process stockpiles and the storage of end-product at the place where the activity is carried on.

(b) The activity of using crushing and screening equipment does not include any activity carried out underground.”

(l) in Part 2, in paragraph 2(1)(c) for “Table 2” substitute “Table 1”

(m) in Part 2, in paragraph 3(d) for “normal refuse” substitute “non-radioactive waste”

(n) in Part 3, in Table 2 for “1 x 10⁰” substitute “1” .

(a) 1984 c. 4. Section 151 was amended by the Planning (Consequential Provisions) (Scotland) Act 1997 (c. 11), the Forth Crossing Act 2011 (asp 2), and the Forth Road Bridge Act 2013 (asp 8).

PART 3

Amendment of the 2013 Regulations

Amendment of the 2013 Regulations

- 36.**—(1) The 2013 Regulations are amended in accordance with this regulation.
- (2) In regulation 2(1) (interpretation)—
- (a) for the definition of “hazardous substance” substitute—
- ““groundwater hazardous substance” means a substance identified in accordance with regulation 24A,”
- (b) for the definition of “pollutant” substitute—
- ““pollutant” means any substance or heat liable to cause pollution to the water environment, including those listed in the Schedule,”
- (c) after the definition of “river basin management plan”, insert—
- ““substance” includes any chemical element and its compounds (including bacteria and other pathogens),”
- (3) After regulation 24 (measures to prevent or limit inputs of pollutants into groundwater), insert—

“Identification of groundwater hazardous substances

- 24A.**—(1) SEPA must identify—
- (a) substances or groups of substances which are toxic, persistent and liable to bio-accumulate, and other substances or groups of substances which give rise to an equivalent level of concern, and
- (b) substances or groups of substances which are entering, or liable to enter groundwater.
- (2) In identifying the substances referred to in paragraph (1), SEPA must take particular account of substances belonging to the families or groups of pollutants referred to in paragraphs 1 to 6 of the schedule as well as substances belonging to the families or groups of pollutants referred to in paragraphs 7 to 9 of the schedule, if those are considered to be hazardous.
- (3) SEPA must publish and maintain a list of the substances identified in accordance with paragraph (1).”
- (4) At the end of the 2013 Regulations, insert the schedule contained in schedule 20 to these Regulations.

PART 4

MISCELLANEOUS

Revocations

- 37.** Schedule 21 has effect.

Consequential amendments

- 38.** Schedule 22 has effect.

St Andrew's House,
Edinburgh
Date

Name
A member of the Scottish Government

DRAFT

SCHEDULE 1

Regulation 8(2)

NEW SCHEDULE 10 TO BE INSERTED INTO THE 2018 REGULATIONS

“SCHEDULE 10

Regulation 6(3)

WATER ACTIVITIES

PART 1

Scope and Interpretation

Scope

- 1.—(1) This schedule applies to all water activities,
(2) Paragraph 2 applies for the interpretation of—
 - (a) this schedule,
 - (b) schedule 9,
 - (c) the definitions of water environment and water activity.
- 2.—(1) The “water environment” includes any part of the water environment which is for the time being dry.
(2) The “water environment” does not include any water contained in—
 - (a) artificial swimming pools,
 - (b) mains or other pipes belonging to Scottish Water or which are used by Scottish Water or any other person for the purpose only of providing a supply of water to any premises,
 - (c) water treatment works,
 - (d) sewers and drains which drain into sewers,
 - (e) sewage treatment works,
 - (f) artificially created systems for the treatment of pollutants.
(3) “Water activity” does not include the discharge of any reagent or chemical or particle tracer used in connection with any scientific experiment or survey in transitional water or coastal water.

Interpretation

3. In this schedule—
 - “coastal water” has the meaning given in section 3(8) of the Water Environment and Water Services (Scotland) Act 2003(a),
 - “loch” means a body of standing inland water,
 - “shellfish” includes crustaceans and molluscs of any kind, and includes any brood, ware, half-ware, spat or spawn of shellfish,

(a) 2003 asp 3 to which there are no relevant amendments.

“transitional water” has the meaning given in section 3(7) of the Water Environment and Water Services (Scotland) Act 2003.

PART 2

Amendments to common framework provisions

Authorisation conditions: protection of the water environment

4.—(1) SEPA must ensure that an authorisation for a water activity includes such conditions as it considers necessary or expedient for the purposes of protection of the water environment.

(2) In this paragraph, “protection of the water environment” includes, in particular—

- (a) preventing further deterioration of, and protecting and enhancing, the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on those aquatic ecosystems,
- (b) promoting sustainable water use based on the long-term protection of available resources,
- (c) aiming at enhancing protection and improvement of the aquatic environment.

Authorised person in relation to a private sewage activity

5.—(1) This paragraph applies in relation to authorisations for the carrying on of a private sewage activity except where —

- (a) the authorisation provides for the carrying on of any other regulated activity in addition to the carrying on of a private sewage activity, or
- (b) SEPA considers it appropriate to authorise the carrying on of a particular private sewage activity by permit.

(2) The “authorised person” in relation to that activity is the owner of any land from which domestic sewage is or is to be discharged into a private sewage treatment works.

(3) The definition of authorised person in paragraph (2) includes—

- (i) where an authorised person has been adjudged bankrupt or the estate of the authorised person is sequestrated, the trustee in bankruptcy,
- (ii) where an executor has been appointed to an authorised person’s estate, the executor,
- (iii) where the authorised person is a body corporate, and—
 - (aa) a receiver has been appointed, the receiver,
 - (bb) an administrator has been appointed, the administrator,
 - (cc) a liquidator has been appointed, the liquidator,
- (iv) where an authorised person is a partnership which is dissolved, any person who was a partner immediately before dissolution.

(4) The following provisions do not apply in relation to the authorisation of or carrying on of a private sewage activity to which this paragraph applies—

- (a) regulation 5 (interpretation of authorised person),
- (b) regulation 12(3)(a) (notifications),
- (c) regulation 16 (application for a registration),
- (d) regulation 17(1)(b) (form and content of a registration),

- (e) regulation 18(3) (grant of registration: applicant),
- (f) regulation 19(2)(a) (variation of registration: purposes),
- (g) regulation 19(3) (variation of registration: authorised person),
- (h) regulation 27 (transfer of a registration or permit),
- (i) regulation 28 (effect of transfer),
- (j) regulation 29 (transfer of revocation notice),
- (k) regulation 30(1)(c) (surrender of registration or permit: authorised person).

(5) The notification of the carrying on or the proposed carrying on of a private sewage activity to which this paragraph applies under regulation 12 must be made by the authorised person.

(6) An application to SEPA for a registration for the carrying on of a private sewage activity to which this paragraph applies must be made in accordance with schedule 1 by the authorised person.

(7) Regulation 46 (regulatory notices) applies in relation to a private sewage activity to which this paragraph applies in accordance with the following modifications—

- (a) regulation 46(1) and (2) are to be read as if there were substituted—

“46.—(1) This regulation applies where SEPA is of the opinion that—

- (a) a private sewage activity has been or is being carried on, and
- (b) at least one of the following apply—
 - (i) steps are required to be taken to prevent or mitigate environmental harm caused or likely to be caused by the private sewage activity,
 - (ii) steps are required to be taken to restore the environment affected or likely to be affected by the regulated activity,
 - (iii) the authorised person has contravened, is contravening, or is likely to contravene a condition, or other provision, of a registration or a general binding rule,
 - (iv) the authorised person has committed an offence under these Regulations,

(2) Where this regulation applies, SEPA may serve a notice (a “regulatory notice”) on the authorised person.”

- (b) regulation 46(3) is to be read as if sub-paragraphs (f) and (g)(v) were omitted.

(8) Regulation 60 (power of SEPA to impose authorisations) applies in relation to a private sewage activity to which this paragraph applies in accordance with the following modifications—

- (a) in regulation 60(1), the reference to “regulated activity” is to be read as if there were substituted “private sewage activity”,
- (b) regulation 60(3) and (4) are to be read as if there were substituted—

“(3) SEPA must give notice to the authorised person carrying on the private sewage activity that it is treating the activity in accordance with regulation 60(1).

(4) Where SEPA treats an activity in accordance with regulation 60(1), SEPA must grant an authorisation to the authorised person.”

(9) Regulation 63(6)(b) does not apply in relation to a private sewage activity to which this paragraph applies.

(10) Any regulatory notice, revocation or surrender notice in force in respect of a registration authorising the carrying on of a private sewage activity to which this paragraph applies must be complied with by the authorised person for that activity.

- (11) In this paragraph—

- (a) “domestic sewage” and “private sewage treatment works” have the meanings given in section 59 of the Sewerage (Scotland) Act 1968,
- (b) “private sewage activity” means the discharge of domestic sewage, whether treated or untreated, from a private sewage treatment works.

PART 3

Duties on SEPA

Duties: general

6.—(1) Before carrying out a function mentioned in sub-paragraph (2) in respect of a water activity, SEPA must—

- (a) if it considers that the activity has or is likely to have a significant adverse impact on the water environment,
 - (i) assess the indirect effects of that impact on any other aspects of the environment likely to be significantly affected,
 - (ii) consider any likely adverse social and economic effects of that impact and of any indirect environmental effects identified in accordance with sub-paragraph (i),
 - (iii) consider the likely environmental, social and economic benefits of the activity,
 - (b) assess the impact of the activity on the interests of other users of the water environment,
 - (c) have regard to other water activities being carried on or likely to be carried on in the area.
- (2) The functions mentioned are—
- (a) granting, or refusing to grant, a registration or a permit,
 - (b) varying, or refusing to vary, a registration or a permit.

Duties: environmental objectives

7.—(1) SEPA must carry out its relevant functions in relation to water activities to secure—

- (a) the achievement of the environmental objectives set for water bodies under section 9(1)(a)(i) (environmental objectives) of the Water Environment and Water Services (Scotland) Act 2003^(a) and in accordance with regulations 3, 5 to 10 and 17 of the 2013 Regulations,
- (b) the achievement of the environmental objectives set for shellfish protected areas under section 9(1)(a)(ii) of that Act and in accordance with regulations 4 to 7 and 9(2) of the Water Environment (Shellfish Water Protected Areas: Environmental Objectives etc.)(Scotland)Regulations 2013^(b),
- (c) the achievement of the protection of the bodies of water identified under section 6(1) (bodies of water used for the abstraction of drinking water) of that Act, with the aim of avoiding deterioration in the quality of that body of water in order to reduce the level of purification treatment required in the production of drinking water,

^(a) 2003 asp 3; section 9 has been relevantly amended by the Aquaculture and Fisheries (Scotland) Act 2013.

^(b) S.S.I. 2013/325 as amended by S.S.I. 2022/138.

- (d) the achievement of the environmental objectives set for the Solway Tweed River Basin District under paragraph 6 of schedule 1 of the Water Environment (Water Framework Directive) (Solway Tweed River Basin District) Regulations 2004(a),
 - (e) the achievement of the environmental objectives set for the Northumbria River Basin District by regulation 5 of the Water Environment (Water Framework Directive) (Northumbria River Basin District) Regulations 2003(b),
 - (f) compliance with the relevant requirements of regulations 13(3), 17, 18), 23(2) and 24 of the 2013 Regulations.
- (2) SEPA must in exercising its relevant functions in relation to water activities, have regard to the requirements of —
- (a) the Urban Waste Water Treatment (Scotland) Regulations 1994(c),
 - (b) the Conservation (Natural Habitats, &c) Regulations 1994(d),
 - (c) Part 2 of the Nature Conservation (Scotland) Act 2004(e),
 - (d) the Bathing Waters (Scotland) Regulations 2008(f),
 - (e) Section 15(1) of the Marine (Scotland) Act 2010(g).

(a) 2004 No. 99; schedule 1 has been amended by S.I. 2016/139.
(b) S.I. 2003/3245 as amended by S.I. 2016/139, S.I. 2017/407 and S.I. 2019/558.
(c) S.S.I. 1994/2842.
(d) S.I. 1994/2716 as amended by S.I. 2007/1843,
(e) 2004 asp 6; Part 2 was relevantly amended by the Wildlife and Natural Environment (Scotland) Act 2011.
(f) S.S.I. 2008/170 as amended by S.S.I. 2012/243 and 2019/26
(g) 2010 asp 5.

SCHEDULE 2 Regulation 8(2)
NEW SCHEDULE 11 TO BE INSERTED INTO THE 2018
REGULATIONS

“SCHEDULE 11 Regulation 6(3)
WASTE MANAGEMENT ACTIVITIES

PART 1
Scope and Interpretation

Scope

- 1.—(1) This schedule applies to all waste management activities,
(2) Paragraph 2 applies for the interpretation of—
 - (a) this schedule,
 - (b) schedule 9
 - (c) schedules 12 -18,
 - (d) schedule 22, and
 - (e) the definition of waste management activities.
- 2.—(1) Waste management activities include, but are not limited to—
 - (a) landfill activities,
 - (b) incineration or co-incineration of solid and liquid waste at a waste incineration or co-incineration plant,
 - (c) recovery of waste by application to land for the purpose of soil improvement,
 - (d) management of the following types of waste—
 - (i) waste motor vehicles,
 - (ii) WEEE,
 - (iii) batteries,

(2) Waste management activities do not include—

 - (a) the transport of waste between different places within the same premises,
 - (b) the operation of an extractive waste area or waste facility as defined in the Management of Extractive Waste (Scotland) Regulations 2010(a).

Interpretation

- 3.—(1) In this schedule and schedules 12-18, and 22—

“emission limit value” means the mass, expressed in terms of certain specific parameters, concentration and/or level of an emission, which may not be exceeded during one or more periods of time,

(a) S.S.I. 2010/60.

“energy recovery” means the use of combustible waste as a means to generate energy through direct incineration with or without other waste but with the recovery of heat,

“preparation for reuse” means checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing,

“prevention” means measures taken before a substance, materials or product has become waste, which reduce—

- (a) the quantity of waste, including through the re-use of products or the extension of the life span of products,
- (b) the adverse impacts of the generated waste on the environment and human health, or
- (c) the content of hazardous substances in materials and products,

“recycling” means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original purpose or for other purposes, including reprocessing of organic materials, but excluding energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations,

“reuse” means any operation by which products and components [that are not waste] are used again for the same purpose for which they were conceived,

“waste recovery” means any operation, including storage, the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy and includes, but is not limited to the activities listed in Annex II of the Waste Framework Directive,

“waste treatment” means recovery or disposal operations, including preparation prior to recovery and disposal,

(2) (a) For the purposes of this schedule and schedules 12-18, “best available techniques (“BAT”)” means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent, and where that is not practicable, to reduce emissions and the impact on the environment as a whole,

(b) in head (a)—

“techniques” includes both the technology used and the way in which an installation is designed, built, maintained, operated and decommissioned,

“available techniques” means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced within the United Kingdom as long as they are reasonably accessible to the operator,

“best” means most effective in achieving a high general level of protection of the environment as a whole.

PART 2

Amendments to common framework provisions

Duty on SEPA: waste hierarchy

4.—(1) SEPA must take the waste hierarchy aim into account when carrying out a relevant function contained in sub-paragraph (4) to the extent that the function relates to a waste management activity.

(2) The waste hierarchy aim is that all appropriate measures are taken to apply the following waste hierarchy in the manner set out in sub-paragraph (3)—

- (a) waste prevention,
- (b) preparing for re-use,
- (c) recycling,
- (d) other recovery, including energy recovery,
- (e) disposal.

(3) The waste hierarchy is to be applied in a way which—

- (a) delivers the best overall environmental outcome,
- (b) takes account of—
 - (i) the environmental principles of precaution and sustainability,
 - (ii) technical feasibility,
 - (iii) economic viability,
 - (iv) the protection of resources, including reducing overall impacts of resource use and improving efficiency of such use,
 - (v) the overall environmental, human health and social impacts,
- (c) the hierarchy may be departed from for particular types of waste where justified in order to ensure the best overall environmental outcome is delivered, and by reference to—
 - (i) the measures available to the authorised person in the circumstances,
 - (ii) the overall impact of the generation and management of such types of waste.

(4) The relevant functions are –

- (a) specification of permit conditions under regulation 22(1)(c), (3) and (4),
- (b) determination and revision of standard conditions under regulation 33 of the regulations.

Duty on SEPA: inspections

5.—(1) SEPA must carry out appropriate periodic inspections in relation to waste management activities authorised under the Regulations,

(2) Inspections concerning the collection and transport of waste must cover the origin, nature, quantity and destination of the waste collected and transported.

Authorisations: waste treatment

6.—(1) SEPA may only authorise waste treatment activities by permit or registration unless paragraph (2) applies,

(2) this sub-paragraph applies to activities involving —

- (a) disposal of a person's own non-hazardous waste at the place of production,
- (b) recovery of waste,

(3) SEPA must ensure that a permit or registration for waste treatment activities includes conditions specifying—

- (a) the types and quantities of waste that may be treated,
- (b) for each type activities authorised, technical and any other requirements relevant to the site concerned,
- (c) the safety and precautionary measures to be taken,
- (d) the treatment method to be used for each type of operation,
- (e) such monitoring and control operations as SEPA considers necessary,
- (f) such closure and after-care provisions as SEPA considers necessary,

(4) SEPA must refuse an application for an authorisation for the treatment of waste if SEPA considers that the intended method of treatment would give rise to significant environmental harm.

Authorisations: record-keeping

7.—(1) SEPA must ensure, as appropriate, that the authorisations in sub-paragraph (2) include such conditions as it considers appropriate to ensure that records of the following are kept —

- (a) the quantity, nature and origin of waste,
- (b) the quantity of products and materials resulting from preparing for re-use, recycling and other recovery operations,
- (c) where relevant, the destination, frequency of collection, mode of transport and treatment method anticipated in respect of the waste,

(2) (a) permits and registration issued under paragraph 6,

- (b) authorisations which authorise the collection or transportation of hazardous waste,
- (c) authorisations for brokers and dealers of hazardous waste,

(3) Records must be kept for—

- (a) 12 months by authorised persons who transport hazardous waste, and in relation to permits and authorisations issued under paragraph 6,
- (b) 3 years in relation to all other authorisations for hazardous waste.”

SCHEDULE 3

Regulation 8(2)

NEW SCHEDULE 12 TO BE INSERTED INTO THE 2018 REGULATIONS

“SCHEDULE 12

Regulation 6(3)

HAZARDOUS WASTE MIXING AND WASTE OIL MIXING, AND TREATMENT OF WASTE OIL

PART 1

Scope and interpretation

Scope and interpretation

- 1.—(1) This schedule applies to the waste management activities of —
- (a) hazardous waste mixing,
 - (b) waste oil mixing,
 - (c) treatment of waste oil,
- (2) in this schedule “hazardous waste” has the same meaning as “special waste” in regulation 2 of the Special Waste Regulations 1996(a).

PART 2

Amendments to the common framework

Authorisations: mixing of hazardous waste

- 2.—(1) The activities in sub-paragraph (3) must not be authorised under these Regulations unless SEPA is satisfied that conditions can be imposed so as to ensure—
- (a) the level of environmental harm is not increased as a result of the activities, and
 - (b) the mixing operation conforms to best available techniques.
- (2) The activities in sub-paragraph (3) may only be authorised by permit of registration,
- (3) The activities are —
- (a) the mixing of different categories of hazardous waste,
 - (b) the mixing of hazardous waste with waste which is not hazardous waste, or with other substances or materials, including the dilution of hazardous substances.

Authorisations: separation of mixed hazardous waste

- 3.—(1) SEPA must ensure that an authorisation for the management of hazardous waste includes such conditions as it considers appropriate to ensure that where such waste is already mixed with other waste, substances, or materials, separation is effected as soon as reasonably practicable where—
- (a) technically feasible,

(a) S.I. 1996/972, as relevantly amended by S.S.I. 2019/26.

- (b) necessary in order to prevent environmental harm,
- (2) where separation of mixed waste in accordance with sub-paragraph (1) is not technically feasible or necessary, mixed waste must only be treated in a facility authorised by SEPA to treat mixed waste.

Authorisations: waste oils

4. SEPA must ensure that an authorisation for a waste management activity involving the treatment of waste oils includes such conditions as it considers appropriate to ensure that—

- (a) waste oils are treated, giving priority to regeneration or alternatively to other recycling operations delivering an equivalent or better overall environmental outcome than regeneration,
- (b) waste oils of different characteristics are not mixed, and waste oils are not mixed with other kinds of waste or substances, if such mixing impedes their regeneration or another recycling operations delivering an equivalent or better overall environmental outcome than regeneration.”

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SCHEDULE 4

Regulation 8(2)

NEW SCHEDULE 13 TO BE INSERTED INTO THE 2018 REGULATIONS

“SCHEDULE 13

Regulation 6(3)

LANDFILL ACTIVITIES

PART 1

Scope and Interpretation

Scope

- 1.—(1) This schedule applies to landfill activities,
- (2) Paragraphs 2 and 3 apply for the interpretation of—
 - (a) this schedule,
 - (b) schedule 11 (waste management activities),
 - (c) the definition of landfill and landfill activities.

Interpretation: Landfill

- 2.—(1) For the purposes of these Regulations, a landfill is a waste disposal site for the deposit of waste onto or into land.
- (2) Landfills include—
 - (a) any site which is used for more than a year for the temporary storage of waste, except in the cases described in sub-paragraph (3),
 - (b) any internal waste disposal site.
- (3) Landfills do not include—
 - (a) any facility where waste is unloaded in order to permit its preparation for further transport for recovery, treatment or disposal elsewhere,
 - (b) any site where waste is stored as a general rule for a period of less than three years prior to recovery or treatment,
 - (c) any site where waste is stored prior to disposal for a period of less than one year,
 - (d) any waste disposal site which finally ceased to accept waste for disposal before 16 July 2001,
 - (e) the use of suitable inert waste for redevelopment, restoration and filling-in work or for construction purposes,
 - (f) the deposit of—
 - (i) non-hazardous dredging sludges or sediment on or alongside the bank or towpath of a river, burn or ditch from which they have been dredged,
 - (ii) non-hazardous sludges in surface water, including the bed and its sub-soil.
- (4) In sub-paragraph (2) “internal waste disposal site” means a site where a producer of waste is carrying out its own waste disposal at the place of production.

Interpretation: Landfill activities

3. Landfill activities include—

- (a) the disposal of waste in a landfill,
- (b) initial construction of a landfill,
- (c) closure and aftercare of a landfill.

Interpretation: general

4. In this schedule—

“the 2002 Council Decision” means Council Decision 2003/33/EC of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC(a),

“the 2000 Commission Decision” means Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (notified under document number C(2000) 1147), where possible, and containing information on the quantity of each type of waste, where appropriate(b),

“biodegradable waste” means any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard,

“definite closure” means the stage that begins with the service of a closure notice and compliance with para. 13(3) and ends with the surrender or revocation of the authorisation and the phrase “definitively closed” is to be construed accordingly,

“eluate” means the solution obtained by a laboratory leaching test,

“granular waste” includes all wastes that are not monolithic,

“isolated settlement” means a settlement—

- (a) with no more than 500 inhabitants per municipality or settlement and no more than 5 inhabitants per square kilometre,
- (b) where the distance to the nearest urban agglomeration with at least 250 inhabitants per square kilometre is not less than 50 km, or with difficult access by road to those nearest agglomerations, due to harsh metrological conditions during a significant part of the year,

“inert waste” means waste which—

- (a) does not undergo any significant physical, chemical or biological transformations,
- (b) does not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental harm,
- (c) has insignificant total leachability and pollutant content and the ecotoxicity of its leachate are insignificant and, in particular, does not endanger the quality of any surface water or groundwater,

“L/S = 10 l/kg” means a liquid to solid ratio of 10 litres to one kilogram,

“landfill gas” means all the gases generated from the landfilled waste,

“liquid waste” means any waste in liquid form including waste waters but excluding sludge,

“leachate” means any liquid percolating through the deposited waste and emitted from or contained within a landfill,

(a) EUDN 2003/33 as amended by S.I. 2019/620

(b) EUDN 2000/532.

“mercury” means metallic mercury (Hg, CAS RN 7439-97-6),

“PAHs (Polycyclic Aromatic Hydrocarbons)” means naphthalene, acenaphthylene, acenaphthene, anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, coronene, dibenzo(a,h)anthracene, fluorene, fluoranthene, indeno(1, 2, 3-c,d)pyrene, phenanthrene and pyrene,

“relevant waste acceptance criteria” means the waste acceptance criteria set out in Part 3 which apply to the class of landfill to which that landfill belongs,

“stable, non-reactive hazardous waste” means hazardous waste, the leaching behaviour of which will not change adversely in the long-term, under landfill design conditions or foreseeable accidents—

- (a) in the waste alone (for example, by biodegradation),
- (b) under the impact of long-term ambient conditions (for example, water, air, temperature, mechanical constraints),
- (c) by the impact of other wastes (including waste products such as leachate and gas),

“treatment” means the physical, thermal, chemical or biological processes, including sorting, which change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitating its handling or enhance recovery,

“underground storage” means a permanent waste storage facility in a deep geological cavity such as a salt or potassium mine,

“waste regularly generated in the same process” means individual and consistent wastes regularly generated in the same process, where—

- (a) the installation and the process generating the waste are well known and the input materials to the process and the process itself are well defined,
- (b) the operator of the installation provides all necessary information and informs the operator of the landfill of changes to the process (especially changes to the input material),
- (c) the waste comes from a single installation or if from different installations, it can be identified as single stream with common characteristics within known boundaries (e.g., bottom ash from the incineration of municipal waste), and
- (d) there is no significant change in the generation processes,

but does not include wastes which do not require testing in accordance with paragraph 12(c).

PART 2

Amendments to common framework

Exemptions for certain landfills on islands and in isolated settlements

- 5.—(1) The provisions referred to in paragraph (2) do not apply to—
- (a) a landfill on an island which on 10 April 2003 had remaining landfill capacity, and which—
 - (i) is the only landfill on the island,
 - (ii) is used exclusively for the disposal of waste generated on that island,
 - (iii) is for non-hazardous or inert wastes with a total capacity not exceeding 15,000 tonnes or with an annual intake not exceeding 1,000 tonnes,until the total capacity of that landfill has been used,

- (b) a landfill for non-hazardous or inert waste in an isolated settlements provided that the landfill is used for the disposal of waste generated only by that isolated settlement.
- (2) The provisions are paragraphs—
- (a) 8(1)(d) and (e),
 - (b) 8(1)(g) as it relates to paragraphs 40 and 41 of Part 5,
 - (c) 10 except as it relates to the criteria in paragraphs 16 and 17,
 - (d) 11,
 - (e) 12, except 12(d)(i) and (f),
 - (f) 13(2)(a) and 13(2)(d), as they relate to paragraphs 34, 35, and 36,
 - (g) 13(2)(c),
 - (h) 33-37,
 - (i) 39,
 - (j) 41-42.
- (3) SEPA must—
- (a) maintain a list of the landfills that fall within sub-paragraph (1),
 - (b) for each site, annually carry out visual inspections of waste at the point of deposit to ensure that only non-hazardous waste from the relevant island or isolated settlement is accepted at the landfill.

Applications for authorisations

6. An application for an authorisation for a landfill activity must contain the following information—

- (a) a description of the types and total quantity of waste to be deposited,
- (b) the proposed capacity of the disposal site,
- (c) a description of the site, including its hydrogeological and geological characteristics,
- (d) the proposed methods for pollution prevention and abatement,
- (e) the proposed operation, monitoring and control plan,
- (f) the proposed plan for the closure and after-care procedures,
- (g) the financial security by the applicant, or any other equivalent provision, as required under paragraph 8(1)(d) of this schedule,
- (h) where an environmental impact assessment is required by the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017(a), the information provided by the developer in accordance with regulation 5 of those Regulations.

Authorisation by permit and landfill classification

7.—(1) A landfill activity may only be authorised by permit.

(2) Before granting a permit for a landfill activity, SEPA must classify the landfill as a—

- (a) landfill for hazardous waste,
- (b) landfill for non-hazardous waste,
- (c) landfill for inert waste.

(a) S.S.I. 2017/102

(3) SEPA must ensure that the permit states the classification of the landfill under sub-paragraph (2).

Authorisation conditions: general

8.—(1) SEPA must ensure that a permit for a landfill activity includes such conditions as it considers appropriate to ensure that—

- (a) the management of the landfill will be in the hands of a natural person who is technically competent to manage the landfill,
- (b) professional and technical development and training of authorised persons and landfill management and staff are provided,
- (c) the landfill is operated so that the necessary measures are taken to prevent accidents and to limit their consequences,
- (d) the authorised person makes adequate financial provision by way of security or an equivalent arrangement to ensure that—
 - (i) obligations (including after-care provisions) arising from the permit in relation to the activity are met, and
 - (ii) any closure procedures required under the permit in relation to that activity are followed,
- (e) that the financial provision referred to in sub-paragraph (d) is maintained until the permit is surrendered in accordance with the Regulations,
- (f) that the disposal of waste to the landfill cannot commence until SEPA has inspected the landfill site to ensure that it complies with the relevant conditions of the permit,
- (g) the landfill complies with the general requirements for all landfills set out in Part 5 of this schedule.

(2) SEPA must ensure that a permit for a landfill activity includes conditions—

- (a) specifying the list of waste types and the total quantity of waste authorised to be deposited in the landfill,
- (b) specifying requirements for the preparations for the landfill, and the carrying out of, landfilling operations,
- (c) requiring the authorised person to report to SEPA, at least annually, the types and quantities of waste deposited in the landfill.

Authorisation conditions: prohibition of acceptance of certain waste at landfills

9.—(1) SEPA must ensure that a permit for a landfill activity includes such conditions as it considers appropriate to ensure that the following types of waste are not accepted at the landfill—

- (a) any waste in liquid form (including waste waters but excluding sludge),
- (b) waste, which in the conditions of landfill, is explosive, corrosive, oxidising, flammable or highly flammable,
- (c) hospital and other clinical wastes which arise from medical or veterinary establishments, and which are infectious,
- (d) chemical substances arising from research and development or teaching activities, such as laboratory residues, which are not new or identified, and the effects of which on humans or on the environment are not known,
- (e) whole used tyres, other than—
 - (i) tyres used as engineering material,

- (ii) bicycle tyres,
 - (iii) tyres with an outside diameter above 1400 mm,
 - (f) shredded tyres other than—
 - (i) bicycle tyres,
 - (ii) tyres with an outside diameter above 1400 mm,
 - (g) waste industrial or automotive batteries,
 - (h) waste which has been collected and transported in accordance with section 34(2I) of the Environmental Protection Act 1990(a) and is capable of being recycled,
 - (i) as from 31 December 2025, biodegradable municipal waste,
 - (j) any waste which does not fulfil the relevant waste acceptance criteria.
- (2) Sub-paragraph (1)(a) does not prohibit temporary storage of mercury waste for more than one year at a landfill,
- (3) Sub-paragraph (1)(g) does not prohibit the acceptance of residues of any batteries that have undergone both treatment and recycling, provided that treatment and recycling—
- (a) used best available techniques, in terms of the protection of health and the environment, and
 - (b) complied, as a minimum, with national law, in particular as regards health and safety and waste management,
- (4) SEPA must ensure that a permit for a landfill activity includes such conditions as it considers appropriate to ensure that the landfill is not used for the disposal of waste which has been diluted or mixed solely to meet the relevant waste acceptance criteria.
- (5) For the purposes of this paragraph, waste is—
- “biodegradable municipal waste” if it consists of municipal waste that is also biodegradable waste, but does not include waste—
- (a) that is treated, and either—
 - (i) respiration activity after a static respiration test is less than 10 milligrams of oxygen for each gram of dry material, or
 - (ii) dynamic respiration over one hour is less than 1000 milligrams of oxygen for each kilogram of volatile solids,
 - (b) that is incinerated, and the total organic carbon content is less than 5%,
- “corrosive” if it consists of substances and preparations which may destroy living tissue on contact,
- “explosive” if it is capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to surroundings, and includes—
- (a) pyrotechnic waste,
 - (b) explosive organic peroxide waste,
 - (c) explosive self-reactive waste,
- “flammable” if it consists of —
- (a) flammable liquid waste having a flash point below 60° C,
 - (b) waste gas oil, diesel, and light heating oils having a flashpoint greater than 50° C or less than or equal to 75 ° C,
 - (c) flammable pyrophoric liquid and solid waste or liquid waste which even in small quantities is liable to ignite within five minutes of coming into contact with air,
 - (d) flammable solid waste which is readily combustible or may cause or contribute to fire through friction,

- (e) flammable gaseous waste which is flammable in air at 20° C and a standard pressure of 101.3 kPA,
- (f) water reactive waste which, in contact with water, emits flammable gases in dangerous quantities,
- (g) other flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste,

“highly flammable” if it consists of—

- (a) liquid substances and preparations having a flash point below 21°C (including extremely flammable liquids),
- (b) substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy,
- (c) solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition,
- (d) gaseous substances and preparations which are flammable in air at normal pressure,
- (e) substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities,

“infectious” if it consists of substances containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in humans or other living organisms,

“mercury waste” means mercury that is waste, and without prejudice to that definition, mercury and mercury compounds, whether in pure form or in mixtures, from any of the following sources are considered to be waste—

- (a) the chlor-alkali industry,
- (b) the cleaning on natural gas,
- (c) non-ferrous mining and smelting operations,
- (d) extraction from cinnabar ore,

“municipal waste” means—

- (a) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, biowaste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture,
- (b) mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households,

but does not include waste from production, agriculture, forestry, fishing, septic tanks and sewage network and treatment, including sewage sludge, end-of-life vehicles or waste generated by construction and demolition activities,

“oxidising” if it consists of substances and preparations which exhibit highly exothermic reactions when in contact with other substances, particularly flammable substances.

(6) In this paragraph, a reference to the total organic carbon content of waste is a reference to the total amount of carbon bound in organic compounds in the waste.

Authorisation conditions: waste which may be accepted in different classes of landfill

10.—(1) SEPA must ensure that a permit for a landfill activity includes such conditions as it considers appropriate to ensure that the landfill is only used for the disposal of waste which has been subject to prior treatment unless—

- (a) it is inert waste for which treatment is not technically feasible,

- (b) it is waste other than inert waste, and treatment would not reduce its quantity or the hazards which it poses to the human health or the environment,
- (c) it is waste for which requiring prior treatment would not accord with the general aims in regulation 9 or the duty in paragraph 4 of Schedule 11,

(2) Where SEPA has classified a landfill as a landfill for hazardous waste under paragraph 7(2)(a), it must ensure that the permit for the landfill activity includes such conditions as it considers appropriate to ensure that only waste which fulfils the waste acceptance criteria in Part 3 of this schedule is accepted at the landfill.

(3) Where SEPA has classified a landfill as a landfill for non-hazardous waste under paragraph 7(2)(b), SEPA must ensure that the permit for the landfill activity includes the conditions necessary to ensure that—

- (a) the landfill is only used for the disposal of—
 - (i) municipal waste,
 - (ii) non-hazardous waste of any other origin which fulfils the waste acceptance criteria in Part 3 of this schedule,
 - (iii) stable, non-reactive hazardous waste (such as that which is solidified with leaching behaviour equivalent to that of non-hazardous waste referred to in sub-paragraph (ii)), and which fulfils the waste acceptance criteria in paragraph 19(a),
- (b) where hazardous waste of the type described at sub-paragraph (3)(a)(iii) is disposed of at a landfill for non-hazardous waste, it is not deposited in cells used or intended to be used for the disposal of biodegradable non-hazardous waste.

(4) Where SEPA has classified a landfill as a landfill for inert waste under paragraph 7(2)(c), it must ensure that the permit for the landfill activity includes such conditions as it considers appropriate to ensure that the landfill is only used for the disposal of inert waste which meets the waste acceptance criteria in Part 3 of this schedule.

Authorisation conditions: costs of disposal of waste in landfill

11. SEPA must ensure that a permit for a landfill activity includes such conditions as it considers appropriate to ensure that the charges imposed for the disposal of waste at the landfill covers all of the following—

- (a) the costs of setting up and operating the landfill,
- (b) the costs of the financial security or equivalent arrangement required under paragraph 8(1)(d),
- (c) the estimated costs for the closure and after-care of the landfill site for a period of at least 30 years from its closure.

Authorisation conditions: waste acceptance procedures

12. SEPA must ensure that a permit for a landfill activity includes such conditions as it considers appropriate to ensure that—

- (a) before or at the time of the delivery of the waste to the landfill, or of the first of a series of deliveries of the same type of waste to the landfill, appropriate documentation is provided to allow for confirmation that the waste can be accepted at the landfill according to the permit conditions and that it fulfils the relevant waste acceptance criteria in accordance with Part 3 of this schedule,
- (b) waste is visually inspected at the entrance to the landfill and at the point of the deposit, to ensure that it conforms with the description provided in the documentation submitted by the holder,
- (c) waste is tested, in accordance with such procedures as are specified by SEPA, to establish whether it corresponds to the description in the accompanying

documents, and if representative samples are taken for analysis, that the samples and the results of any analysis are retained for at least 1 month,

- (d) a register is maintained, to make available to SEPA on request, showing—
 - (i) the quantities of waste deposited,
 - (ii) its characteristics,
 - (iii) its origin,
 - (iv) the date or dates of its delivery,
 - (v) the identity of the producer, or in the case of municipal waste, the collector,
 - (vi) in the case of hazardous waste, its precise location on the site,
- (e) when a delivery of waste is accepted at the landfill, a written receipt is provided to the person delivering it,
- (f) SEPA is to be informed when waste is not accepted at a landfill, as soon as reasonably possible, and in any event within 7 days.

Authorisation conditions: control and monitoring of operational landfill sites

13.—(1) SEPA must ensure that a permit for a landfill activity includes such conditions as it considers appropriate to ensure that the requirements specified in sub-paragraph 2 apply to the landfill from the start of the operational phase until definitive closure.

- (2) The requirements are that—
 - (a) the control and monitoring procedures in Part 4 of this schedule are carried out,
 - (b) where those control and monitoring procedures reveal any significant environmental effects—
 - (i) SEPA must be notified as soon as reasonably possible,
 - (ii) the authorised person must undertake remedial measures at their own expense,
 - (iii) the authorised person must follow the direction of SEPA as to the nature and timing of remedial measures,
 - (c) the following information, on the basis of aggregated data, must be provided to SEPA, on its request and in any event at least once a year—
 - (i) the results of the monitoring,
 - (ii) any other information which SEPA requires to demonstrate compliance with conditions of the permit or to increase knowledge of the behaviour of waste in landfill,
 - (d) the quality control of analytical operations of control and monitoring procedures, and analyses of representative samples taken in accordance with Part 4 must be carried out by competent laboratories.

Authorisation conditions: closure and after-care procedures for landfills

14.—(1) SEPA must ensure that a permit for a landfill activity includes such conditions as it considers appropriate to ensure that the closure and after-care procedures set out in sub-paragraphs (2) to (4) apply to the landfill, whether it is closing in whole or in part.

- (2) The closure procedure begins—
 - (a) when the conditions relevant to closure preparation specified in the permit are satisfied,
 - (b) when SEPA approves the initiation of the closure procedure following a request from the authorised person,
- (3) The landfill must not be definitely closed until—

- (a) such reports as may be required by SEPA have been submitted to it by the authorised person, and
 - (b) SEPA has—
 - (i) assessed all the reports submitted by the authorised person,
 - (ii) carried out a final on-site inspection,
 - (iii) notified the authorised person in writing that it approves the closure.
- (4) Following definite closure of a landfill, after care procedures must ensure that—
- (a) the authorised person remains responsible for the maintenance, monitoring and control for such period as SEPA determines is reasonable, taking into account the time during which the landfill could present hazards,
 - (b) the authorised person notifies SEPA of any significant environmental effect revealed by the control procedures, and takes the remedial steps required or approved by SEPA,
 - (c) the authorised person is responsible for monitoring and analysing landfill gas and leachate from the landfill and the groundwater regime in its vicinity for as long as SEPA considers that the landfill is likely to cause a hazard to the environment.
- (5) For the avoidance of doubt, the authorised person is not relieved from any liability by SEPA's approval of the closure.

Surrender or revocation of permit for landfill activity

15. SEPA must not grant any application for complete or partial surrender of a permit for a landfill activity under regulation 30 (surrender of registration or permit), or revoke it in whole or in part under regulation 31 (revocation of permits and registrations), for as long as SEPA considers that the landfill (or the relevant part of it) is likely to cause a hazard to the environment.

PART 3

Waste Acceptance Criteria and Procedures

CHAPTER 1

General criteria

General criteria for the acceptance of waste at all landfill

- 16.** Waste may only be accepted at a landfill if it does not compromise the protection—
- (a) of the surrounding environment, in particular groundwater and surface water,
 - (b) of environmental protection systems such as liners, leachate and gas collection and treatment systems at the landfill,
 - (c) of the desired waste-stabilisation processes within the landfill,
 - (d) against human health hazards.

Additional general criteria for the acceptance of waste at landfills for hazardous waste

- 17.** Waste may only be accepted at a landfill for hazardous waste if —

- (a) it is listed on the Hazardous Waste List of 2000 Commission Decision or has similar characteristics to those so listed, and
- (b) its total content or leachability —
 - (i) does not present a short-term occupational risk or an environmental risk [risk of environmental harm], and
 - (ii) would not prevent the stabilisation of the landfill within its projected lifetime taking account of its aftercare period.

Additional general criteria for the acceptance of waste at landfills for non-hazardous waste

18. Waste may only be accepted at a landfill for non-hazardous waste if—

- (a) it is listed as hazardous in the Annex to the 2000 Commission Decision or has similar characteristics to those so listed and —
 - (i) it is stable non-reactive hazardous waste,
 - (ii) its leaching behaviour is equivalent to that of non-hazardous waste which meets the relevant waste acceptance criteria, and
 - (iii) it is not deposited in cells used or intended to be used for the disposal of biodegradable non-hazardous waste,
- (b) it is any other waste listed in the Annex to the 2000 Commission Decision or has similar characteristics to those so listed.

Additional general criteria for the acceptance of waste at landfills for inert waste

19. Waste may only be accepted at a landfill for inert waste if it —

- (a) meets the requirements of paragraph 25, or
- (b) otherwise falls within the definition of inert waste in paragraph 4 and meets the requirements in paragraph 26.

CHAPTER 2

Additional Acceptance Criteria

Additional criteria for acceptance of waste at landfills for hazardous waste

20.—(1) The following criteria apply to granular waste to be accepted at a landfill for hazardous waste—

- (a) the leaching limit values set out in Table 1,
- (b) the additional criteria set out in Table 2, and
- (c) the waste must have a load bearing capacity of at least 50kpa.

(2) Subject to sub-paragraph (4), the following criteria applies to monolithic hazardous waste to be accepted at a landfill —

- (a) the limit values set out in Table 3,
- (b) the additional criteria set out in Table 7,
- (c) the waste must have a load bearing capacity of at least 1.5Mpa, and
- (d) the monolith must be at least 40 cm in any direction or have a fracture spacing of at least 40 cm.

(3) Where waste is subject to treatment to render it monolithic, the waste must only be accepted at a landfill if prior to such treatment, the waste meets the following limit values—

- (a) loss of ignition of 10%, or

(b) total organic carbon of 6%.

Table 1

<i>Component</i>	<i>Symbol</i>	<i>L/S = 10 l/kg ⁽¹⁾</i>
		Mg/kg dry substance
Arsenic	As	25
Barium	Ba	300
Cadmium	Cd	5
Total chromium	Cr total	70
Copper	Cu	100
Mercury	Hg	2
Molybdenum	Mo	30
Nickel	Ni	40
Lead	Pb	50
Antimony	Sb	5
Selenium	Se	7
Zinc	Zn	200
Chloride	Cl-	25 000
Fluoride	F-	500
Sulphate	SO42-	50 000
Phenol index	PI	1
Dissolved Organic Carbon ⁽²⁾	DOC	1000
Total dissolved solids ⁽³⁾	TDS	100 000

⁽¹⁾ SEPA may include conditions in a permit authorising limit values for specific parameters (other than dissolved organic carbon) up to three times higher for specified waste accepted in a landfill taking into account the characteristics of the landfill and its surroundings and provided a risk assessment demonstrates that emissions (including leachate) from the landfill will present no additional risk to the environment.

⁽²⁾ If the waste does not meet this value for dissolved organic carbon (DOC) at its own pH, it may alternatively be tested at L/S = 10 l/kg and a pH of between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 1,000 mg/kg.

⁽³⁾ The values for TDS (Total Dissolved Solids) can be used alternatively to the values for Sulphate and Chloride.

Table 2

<i>Parameter</i>	<i>Values</i>
Loss on Ignition (LOI) ⁽¹⁾	10%
Total organic carbon (TOC) ⁽²⁾	6%
Acid Neutralisation Capacity (ANC)	Must be evaluated between the pH of the waste in question, at pH6 and the pH of the site leachate.

⁽¹⁾ Either Loss on Ignition (LOI) or Total Organic Carbon (TOC) must be used.

⁽²⁾ If this value for TOC is not achieved, a higher limit value may be permitted by SEPA provided that the DO value of 1,000 mg/kg is achieved at L/S = 10 l/kg at its own pH or a pH value of between 7.5 and 8.0.

Table 3

<i>Component</i>	<i>Symbol</i>	<i>Mg/m²(¹)</i>
Arsenic	As	20
Barium	Ba	150
Cadmium	Cd	1

Total chromium	Cr total	25
Copper	Cu	60
Mercury	Hg	0.4
Molybdenum	Mo	20
Nickel	Ni	15
Lead	Pb	20
Antimony	Sb	2.5
Selenium	Se	5
Zinc	Zn	100
Chloride	Cl-	20 000
Fluoride	F-	200
Sulphate	SO ₄ ²⁻	20 000
Dissolved Organic Carbon	DOC	Must be evaluated

⁽¹⁾ These limit values apply to tests using the 64-day tank test (NEN 7345) necessary for characterisation of the waste. Where it is appropriate for compliance testing, SEPA may specify use of a shortened version of the test comprising only the first four steps, and in such cases, the limit values will be a quarter of the values in the table.

Additional criteria for acceptance of waste at landfills for non-hazardous waste

21.—(1) Subject to sub-paragraph (2), waste of the following types may be accepted without testing at landfills for non-hazardous waste—

- (a) municipal waste that is classified as non-hazardous in Chapter 20 of the 2000 Commission Decision,
- (b) separately collected fractions of household wastes and the same non-hazardous materials from other origins.

(2) Waste referred to in sub-paragraph (1) must meet the following criteria—

- (a) it must have been subject to prior treatment in accordance with paragraph 10,
- (b) it must not be contaminated to such an extent as to justify its disposal in other facilities, and
- (c) it must not be accepted in cells where stable, non-reactive hazardous waste is accepted in accordance with paragraph 18(a) of this schedule.

(3) Waste comprising construction materials containing asbestos and other suitable materials may also be accepted at landfills for non-hazardous waste without testing where it meets the criteria in paragraph 18(a) and is landfilled in accordance with paragraph 24.

(4) Waste to which paragraphs 22 to 24 applies provided that the criteria in the applicable paragraph is met may be accepted at landfills for non-hazardous waste.

Criteria for granular stable non-reactive hazardous waste deposited in a cell on its own and granular stable non-reactive hazardous waste and non-hazardous waste deposited in the same cell

22.—(1) The following criteria applies to granular, stable, non-reactive hazardous waste and to granular non-hazardous waste which is landfilled in the same cell with such waste—

- (a) the limit values set out in Table 4,
- (b) the additional criteria set out in Table 5, and
- (c) the waste must have the load bearing capacity of at least 50kPa.

(2) Subject to sub-paragraph (3), the following criteria applies to monolithic stable, non-reactive hazardous waste and to monolithic non-hazardous waste which is landfilled in the same cell with such waste—

- (a) the limit values set out in Table 6,
- (b) the additional criteria set out in Table 7,

- (c) the waste must have a load bearing capacity of at least 1.5Mpa, and
- (d) the monolith must be at least 40 cm in any direction or have a fracture spacing of at least 40 cm.

(3) Where waste is subject to treatment to render it monolithic, the waste must only be accepted at a landfill if, prior to such treatment, the waste met the following maximum limit values—

- (a) loss of ignition of 10%, or
- (b) total organic carbon of 6%.

Table 4

<i>Component</i>	<i>Symbol</i>	<i>L/S = 10 l/kg</i> ⁽¹⁾ mg/kg dry substance
Arsenic	As	2
Barium	Ba	100
Cadmium	Cd	1
Total Chromium	Cr total	10
Copper	Cu	50
Mercury	Hg	0.2
Molybdenum	Mo	10
Nickel	Ni	10
Lead	Pb	10
Antimony	Sb	0.7
Selenium	Se	0.7
Zinc	Zn	50
Chloride	Cl-	15 000
Fluoride	F-	150
Sulphate	SO42-	20 000
Dissolved organic Carbon ⁽²⁾	DOC	800
Total dissolved solids ⁽³⁾	TDS	60 000

⁽¹⁾ SEPA may include conditions in a permit authorising limit values for specific parameters (other than dissolved organic carbon) up to three times higher for specified waste accepted in a landfill taking into account the characteristics of the landfill and its surroundings and provided a risk assessment demonstrates that emissions (including leachate) from the landfill will present no additional risk to the environment.

⁽²⁾ If the waste does not meet this value for Dissolved Organic Carbon (DOC) at its own pH, it may alternatively be tested at L/S = 10 l/kg and a pH of between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 800 mg/kg.

⁽³⁾ The values for TDS (Total Dissolved Solids) can be used alternatively to the values for Sulphate and Chloride.

Table 5

<i>Parameter</i>	<i>Value</i>
Total organic carbon (TOC) ⁽¹⁾	5%
pH	Minimum 6
Acid neutralisation capacity (ANC)	Must be evaluated between the pH of the waste in question, pH ₆ and the pH of the site leachate.

⁽¹⁾ If this value is not achieved, a higher limit value may be permitted by SEPA, provided that the Dissolved Organic Carbon (DOC) value of 800 mg/kg is achieved at L/S = 10 l/kg, either at the material's own pH or at a pH value between 7.5 and 8.0.

Table 6

<i>Component</i>	<i>Symbol</i>	<i>Mg/m² ⁽¹⁾</i>
Arsenic	As	1.3
Barium	Ba	45
Cadmium	Cd	0.2
Total Chromium	Cr total	5
Copper	Cu	45
Mercury	Hg	0.1
Molybdenum	Mo	7
Nickel	Ni	6
Lead	Pb	6
Antimony	Sb	0.3
Selenium	Se	0.4
Zinc	Zn	30
Chloride	Cl-	10 000
Fluoride	F-	60
Sulphate	SO42-	10 000
Dissolved Organic Carbon	DOC	Must be evaluated

⁽¹⁾ These limit values apply to tests using the 64-day tank test (NEN 7345) necessary for characterisation of the waste. Where it is appropriate for compliance testing, SEPA may specify use of a shortened version of the test comprising only the first four steps, and in such cases, the limit values will be a quarter of the values in the table.

Table 7

<i>Parameter</i>	<i>Value</i>
pH	Must be evaluated
Electrical conductivity (mScm-1m-2)	Must be evaluated
Acid Neutralisation Capacity (ANC)	Must be evaluated

Criteria relating to gypsum based waste

23.—(1) Gypsum based and other high sulphate bearing wastes may only be disposed of in landfills for non-hazardous waste in cells where no biodegradable waste is accepted.

(2) The limit values for total organic carbon and dissolved organic carbon given in Tables 4 and 5 above apply to wastes landfilled with gypsum-based materials.

Criteria for asbestos waste

24. The following criteria apply to the landfilling of asbestos waste and to construction materials containing asbestos—

- (a) the waste must contain no hazardous substances other than bound asbestos, including fibres bound by a binding agent or packed in plastic,
- (b) construction material containing asbestos or other suitable asbestos waste can only be accepted in a landfill dedicated to these wastes or in a separate cell of a non-dedicated landfill, provided it is sufficiently self-contained,
- (c) the zone of deposit must be covered daily and before each compacting operation with appropriate material and, if the waste is not packed, it is regularly dampened down,

- (d) a final top cover is put on the landfill or cell in order to avoid the dispersion of fibres,
- (e) no works are carried out on the landfill or cell that could lead to a release of fibres (e.g., the drilling of holes), and
- (f) appropriate measures are taken to limit the possible uses of the land after closure of the landfill in order to avoid human contact with the waste.

Additional criteria for waste acceptable without testing at landfills for inert waste

25.—(1) Subject to sub-paragraph (2), waste of the types set out in Table 8 may be accepted without testing at landfills for inert waste provided the waste is—

- (a) from a single stream waste of a single waste type unless different waste types from the list in Table 8 are accepted together, and
- (b) from a single source.

(2) Waste referred to in sub-paragraph (1) must be tested where there is suspicion of contamination or doubt that the waste meets the definition of inert waste in paragraph 4 or the criteria in Table 8.

(3) If such testing reveals contamination or the presence of other materials or substances such as metals, asbestos, plastics or chemicals, the waste must not be accepted at a landfill for inert waste if the extent of the contamination is such as to increase the risk associated with the waste sufficiently to justify its disposal in other classes of landfill.

Table 8

Waste acceptable at landfills for inert waste

<i>Commission Decision 2000</i>	<i>Commission Decision 2000</i>	<i>Description</i>	<i>Restrictions/ Exclusions</i>
10 – Wastes from thermal processes	10 11 03	Waste glass based fibrous materials	Only without organic binders
15 – Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified	15 01 07	Glass packaging	
17 – Construction and demolition wastes (including excavated soil from contaminated sites)	17 01 01	Concrete	Selected C&D waste only ⁽¹⁾
	17 01 02	Bricks	Selected C&D waste only ⁽¹⁾
	17 01 03	Tiles and ceramics	Selected C&D waste only ⁽¹⁾

	17 01 07	Mixture of concrete, bricks, tiles and ceramics	Selected C&D waste only ⁽¹⁾
	17 02 02	Glass	
	17 05 04	Soil and stones	Excluding topsoil, peat, and soil and stones from contaminated sites
20 – Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions	20 01 02	Glass	Separately collected glass only
	20 02 02	Soil and stones	Only from garden and parks waste and excluding topsoil, peat

(1) Selected construction and demolition waste (C&D waste) which—

(a) must have low contents of other types of materials (metals, plastic, organics, wood, rubber etc),

(b) must be of known origin,

(c) must not be from constructions polluted with inorganic or organic dangerous substances unless it is made clear the demolished construction was not significantly polluted,

(d) must not be from constructions treated, covered or painted with materials containing dangerous substances in significant amounts.

Limit values for waste acceptable at landfills for inert waste

26. The following limit values apply to waste accepted at landfills for inert waste other than waste which may be accepted without testing under paragraph 25—

(a) the limit values for leaching set out in Table 9, and

(b) the limit values for total content of organic parameters set out in Table 10.

Table 9

<i>Component</i>	<i>Symbol</i>	<i>L/S = 10 l/kg</i>
		Mg/kg dry substance
Arsenic	As	0.5
Barium	As	0.5
Cadmium	Cd	0.04
Total Chromium	Cr total	0.5
Copper	Cu	2
Mercury	Hg	0.01
Molybdenum	Mo	0.5
Nickel	Ni	0.4
Lead	Pb	0.5
Antimony	Sb	0.06
Selenium	Se	0.1
Zinc	Zn	4
Chloride	Cl-	800

Fluoride	F-	10
Sulphate ⁽¹⁾	SO42-	1000
Phenol index	PI	1
Dissolved organic carbon ⁽²⁾	DO	500
Total dissolved solids ⁽³⁾	TDS	4000

⁽¹⁾ This limit value for sulphate may be increased to 6,000 mg/kg, provided that the value of CO (the first eluate of a percolation test at L/S = 0.1 l/kg) does not exceed 1,500 mg/l. It will be necessary to use a percolation test to determine the limit value at L/S = 0.1 l/kg under initial equilibrium conditions.

⁽²⁾ If the waste does not meet this value for Dissolved Organic Carbon (DOC) at its own pH value, it may alternatively be tested at L/S = 10 l/kg and a pH between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 500 mg/kg.

⁽³⁾ The value for Total Dissolved Solids can be used alternatively to the values for Sulphate and Chloride.

Table 10

<i>Parameter</i>	<i>Value</i>
	mg/kg
Total Organic Carbon (TOC) ⁽¹⁾	30 000
BTEX compounds (benzene, toluene, ethyl benzene and xylenes)	6
Polychlorinated biphenyls (PCBs) (7 congeners)	1
Mineral oil (C10 to C40)	500
PAHs (polycyclic aromatic hydrocarbons)	100

⁽¹⁾ In the case of soils, a higher limit value may be permitted by SEPA, provided a Dissolved Organic Carbon value of 500 mg/kg is achieved at L/S 10 l/kg at the pH of the soil or at a pH value of between 7.5 and 8.0.

Criteria for underground storage

27.—(1) Waste may only be accepted at an underground storage site in accordance with a site-specific safety assessment which complies with Appendix A to the 2002 Council Decision.

(2) At underground storage sites for inert waste, only waste which fulfils the criteria at paragraph 27 may be accepted.

(3) At underground storage sites for non-hazardous waste, only waste which fulfils the criteria at paragraphs 21 and 22 may be accepted.

(4) At underground storage sites for hazardous waste, the criteria at paragraph 20 do not apply.

Specific acceptance criteria for the temporary storage of mercury

28.—(1) The temporary storage of mercury for more than one year must comply with the requirements in sub-paragraphs (2) to (14).

(2) Mercury must have a mercury content greater than 99.9% by weight and contain no impurities capable of corroding carbon or stainless steel (such as nitric acid solution, chloride salts solutions).

(3) Containers used for the storage of mercury must—

(a) be corrosion and shock resistant and welds must be avoided,

- (b) be made of a container material that is carbon steel (ASTM A36^(a) minimum) or stainless steel (AISI 304, 316L),
 - (c) be gas and liquid tight,
 - (d) have an outer side of the container that is resistant against the storage conditions,
 - (e) be of a design type that successfully passes the drop test and the leakproofness tests as described in Chapters 6.1.5.3 and 6.1.5.4 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria ^(b),
 - (f) bear a durable stamp (made by punching) mentioning the identification number of the container, the construction material, its empty weight, the reference of the manufacturer and the date of construction, and
 - (g) bear a plate permanently fixed to the container mentioning the identification number of the certificate.
- (4) The maximum filling ratio of the container must be 80% by volume to ensure that sufficient ullage is available, and that leakage or permanent distortion of the container cannot occur as a result of an expansion of the liquid due to high temperature.
- (5) Containers must be visually inspected before storage and damaged, leaking or corroded containers must not be accepted.
- (6) Only containers with an acceptance certificate complying with the requirements set out in sub-paragraphs (7) and (8) may be accepted.
- (7) The acceptance certificate must include the following—
- (a) the name and address of the waste producer,
 - (b) the name and address of the person responsible for the filling,
 - (c) the place and date of filling,
 - (d) the quantity of the mercury,
 - (e) the purity of the mercury and, if relevant, a description of the impurities, including the analytical report,
 - (f) confirmation that the containers have been used exclusively for the transport or storage of mercury, and
 - (g) the identification numbers of the containers.
- (8) The acceptance certificate must be issued by the producer of the waste, or by the person responsible for its management.
- (9) The authorised person must retain for 3 years, or a longer period as specified by SEPA in the permit, after termination of storage of mercury—
- (a) the acceptance certificate,
 - (b) all documents relating to the keeping, monitoring and inspection of the mercury during storage, and
 - (c) all records concerning the destocking, dispatch, destination and intended treatment of the mercury.

^(a) Standard Specification for Carbon Structural Steel, available at <http://www.astm.org/Standards/A36.htm>
^(b) http://www.unece.org/trans/publications/dg_tests2011.html.

CHAPTER 3

Procedure for acceptance of waste at landfills

Basic characterisation

29.—(1) Waste may only be accepted at a landfill if it is characterised by its producer or the person responsible for its management to ensure that all information necessary for safe disposal of the waste in the long term is available, including at the following information—

- (a) the source and origin of the waste,
- (b) the process producing the waste, including—
 - (i) a description of the process, and
 - (ii) the characteristics of its raw materials and products,
- (c) the waste treatment applied or a statement of reasons why such treatment is not required under paragraph 10(1),
- (d) the composition of the waste, including where relevant, an assessment of it against the relevant limit values in Part 3 of this schedule and, where necessary and available, its other characteristic properties,
- (e) the appearance of the waste, including—
 - (i) smell,
 - (ii) colour,
 - (iii) consistency,
 - (iv) physical form,
- (f) the code applicable to the waste under Commission Decision 2000,
- (g) in the case of hazardous waste, the relevant properties which render it hazardous according to Annex III of the Waste Framework,
- (h) evidence that the waste is not prohibited under paragraph 9,
- (i) the landfill class at which the waste may be accepted,
- (j) the likely behaviour (including, where relevant, leaching behaviour) of the waste in a landfill and any additional precautions that need to be taken at the landfill as a consequence,
- (k) whether the waste can be recycled or recovered,

(2) For waste regularly generated in the same process, the following additional information must be provided—

- (a) the compositional range for the individual wastes,
- (b) the range and variability of characteristic properties,
- (c) if appropriate, the leachability of the wastes determined by —
 - (i) a batch leaching test,
 - (ii) a percolation test,
 - (iii) a pH dependence test,
- (d) identification of the key variables to be tested for compliance testing, the frequency of compliance testing and options for simplification of compliance testing,
- (e) in the case of waste which is produced in the same process in different installations, the scope of the evaluation which must include a sufficient number of measurements to show the range and variability of the characteristic properties of the waste,

(3) In order to characterise the waste, it must be subject to prior tests in accordance with paragraph 12(c), unless sub-paragraph (4) applies,

- (4) Testing is not required in the case of any of the following types of waste—
- (a) waste which may be accepted without testing under paragraphs 21 and 25,
 - (b) waste in respect of which SEPA is satisfied that all the necessary information for the characterisation under sub-paragraph (3) can be provided without testing,
 - (c) waste in respect of which SEPA is satisfied by way of a documented justification supplied to it that—
 - (i) the waste is of a type where testing is impractical or appropriate testing procedures and acceptance criteria are not available,
 - (ii) the waste is of a type which is acceptable at the landfill class in question,
- (5) Records of the information obtained for the purposes of characterisation must be retained by the authorised person for at least two years after the date of characterisation.
- (6) Any type which may be accepted without testing under sub-paragraph (4) is subject to checking for compliance with its basic characterisation established under this paragraph.

Compliance testing

30.—(1) Waste regularly generated in the same process does not require for each batch to be tested as part of its basic characterisation, but may instead be subject to compliance testing in accordance with this paragraph,

(2) Compliance testing must consist of one or more of the tests applied in accordance with paragraph 29 and must include—

- (a) testing of the key variables established under paragraph 29(2)(d) so as to demonstrate that the waste meets the limit values for those variables,
- (b) a batch leaching test using the same method as was used for the test undertaken under paragraph 29(2)(c)(i), and
- (c) tests which demonstrate that the waste complies with the results of the characterisation carried out under paragraph 29 and the relevant acceptance criteria,

(3) Compliance testing must be carried out at the times established in the characterisation but must not be less frequent than once a year,

(4) Records of compliance testing must be retained by the operator for a period of not less than two years.

PART 4

Minimum Monitoring Procedures for Landfills

31. This Part sets out minimum procedures for monitoring to be carried out to check—

- (a) that waste has been accepted for disposal only if it fulfils the relevant waste acceptance criteria,
- (b) that the processes within the landfill proceed as required,
- (c) that environmental protection systems are functioning fully as intended,
- (d) that the conditions of the landfill permit are fulfilled.

Sampling and Test methods

32.—(1) Sampling and testing is to be carried out in accordance with Part 3 of the Annex to the 2002 Council Decision.

(2) Any tests and analysis under the Part for which CEN standards are not available must be approved by SEPA.

Emission data: water, leachate and gas control

33.—(1) Samples of leachate or surface water (if present) must be collected at representative points.

(2) Sampling and measuring of the volume and composition of any leachate must be performed separately at each point at which leachate is discharged from the site.

(3) Monitoring of surface water (if present) must take place at least two points, one upstream from the landfill and one downstream.

(4) Gas monitoring must be carried out for each section of the landfill and representative samples must be collected and analysed in accordance with Table 11.

(5) A sample of leachate and water representative of the average composition must be taken for monitoring purposes in accordance with Table 11.

Table 11

	<i>Operational phase</i>	<i>After-care phase¹</i>
Leachate volume ²	Monthly ^{3, 1}	Every six months
Leachate composition ^{2 4}	Quarterly ³	Every six months
Volume and composition of surface water ⁵	Quarterly ³	Every six months
Potential gas emissions and atmospheric pressure ⁶ (CH ₄ , CO ₂ , O ₂ , H ₂ S, H ₂ etc)	Monthly ^{3, 7}	Every six months ⁸

(1) The frequency of sampling may be adapted on the basis of the morphology of the landfill waste (in tumulus, buried, etc) (but only if SEPA considers that the conditions of the landfill permit should allow for it).

(2) These do not apply where leachate collection is not required under paragraph 40(2).

(3) Longer intervals may be allowed if the evaluation of data indicates that they would be equally effective. For leachates, the conductivity must always be measured at least once a year.

(4) The parameters to be measured and substances to be analysed vary according to the composition of the waste deposited. They must be specified in the conditions of the landfill permit and reflect the leaching characteristics of the wastes.

(5) On the basis of the characteristics of the landfill site, SEPA may determine that these measurements are not required.

(6) These measurements are related mainly to the content of the organic material in the waste.

(7) CH₄, CO₂, O₂ regularly, other gases as required, according to the composition of the waste deposited, with a view to reflecting its leaching properties.

(8) Efficiency of the gas extraction system must be checked regularly.

Protection of groundwater: sampling

34.—(1) The sampling measurements must be sufficient to provide information on groundwater likely to be affected by the discharge from the landfill, with at least one measuring point in the groundwater inflow region and two in the outflow region.

(2) The number of measurements referred to in sub-paragraph (1) may be increased on the basis of a specific hydrogeological survey and the need for an early identification of accidental leachate release in the groundwater.

(3) Sampling must be carried out in at least three locations before the filling operations in order to establish reference values for future sampling.

Protection of groundwater: monitoring

35.—(1) The monitoring of groundwater must be carried out in accordance with Table 12.

(2) The parameters to be analysed in the samples taken must be derived from the expected composition of the leachate and the groundwater quality in the area.

(3) In selecting the parameters for analysis, the mobility in the groundwater zone must be taken into account.

(4) Parameters may include indicator parameters in order to ensure an early recognition of change in water quality.

(5) The recommended parameters are pH, TOC, phenols, heavy metals, fluoride, As, oil/hydrocarbons.

Table 12

	<i>Operational phase</i>	<i>After-care phase</i>
Level of groundwater	Every six months ¹	Every six months
Groundwater composition	Site-specific frequency	Site-specific frequency ^{2, 3}

⁽¹⁾ If there are fluctuating groundwater levels, the frequency must be increased.

⁽²⁾ The frequency must be based on the possibility for remedial action between two samplings if a trigger level is reached, i.e., the frequency must be determined on the basis of knowledge and the evaluation of the velocity of groundwater flow.

⁽³⁾ When a trigger level is reached (see paragraph 37), verification is necessary by repeating the sampling. When the level has been confirmed, a contingency plan set out in the landfill permit conditions must be followed.

Protection of groundwater: trigger levels

36.—(1) Significant environmental harm, as referred to in paragraphs 13(2)(b) and 14(4)(b), should be considered to have occurred in the case of groundwater, when an analysis of a groundwater sample shows a significant change in water quality.

(2) The level at which the effects referred to in sub-paragraph (1) are considered to have occurred (“the trigger level”) must be determined taking account of the specific hydrogeological formations in the location of the landfill and groundwater quality.

(3) The trigger level must be set out in the conditions of a landfill permit whenever possible.

(4) The observations must be evaluated by means of control charts with established control rules and levels for each downgradient well.

(5) The control levels must be determined from local variations in groundwater quality.

Topography of the site: data on landfill body

37. The topography of the site and settling behaviour of the landfill body must be monitored in accordance with Table 13.

Table 13

	<i>Operating phase</i>	<i>After-care phase</i>
Structure and composition of landfill body ¹	Yearly	
Settling behaviour of the level of the landfill body	Yearly	Yearly reading

⁽¹⁾ Data for the status plan of the concerned landfill: surface occupied by waste, volume and composition of waste, methods of depositing, time and duration of depositing, calculation of the remaining capacity still available at the landfill.

PART 5

General Requirements for all Landfills

Location

38. The location of a landfill must take into consideration requirements relating to—

- (a) the distances from the boundary of the site to residential and recreational areas,
- (b) waterways, water bodies and other agricultural or urban sites,
- (c) the existence of groundwater, coastal water or nature protection zones in the area,
- (d) the geological or hydrogeological conditions in the area,
- (e) the risk of flooding, subsidence, landslides or avalanches on the site,
- (f) the protection of the natural or cultural heritage in the area.

(2) SEPA may issue a permit for a landfill activity only if—

- (a) the characteristics of the site with respect of the requirements in sub-paragraph (1), or
- (b) the remedial measures to be taken,

indicate that the landfill does not pose a serious environmental risk.

(3) In this paragraph “nature protection zone” means land which has been notified under section 3 of the Nature Conservation (Scotland) Act 2003^(a) or a European site within the meaning of regulation 10(1) of the Conservation (Natural Habitats, &c.) Regulations 1994^(b).

Water control and leachate management

39.—(1) Appropriate arrangements must be made having regard to the characteristics of the landfill and prevailing meteorological conditions in order to—

- (a) control rainwater entering the landfill body,
- (b) prevent surface water or groundwater from entering into landfilled waste,
- (c) collect contaminated water and leachate and treat it to the appropriate standard so it can be discharged.

(2) Arrangements need not be made in accordance with sub-paragraph (1)(c) if SEPA decides that the landfill poses no potential hazard to the environment in view of its location and the kinds of waste to be accepted at the landfill.

(3) This paragraph does not apply to landfills for inert waste.

Protection of soil and water and leachate collection and sealing systems

40.—(1) The landfill must be situated and designed so as to—

- (a) provide the conditions for prevention of pollution of the soil, groundwater or surface water,
- (b) ensure efficient collection of leachate as and when required by paragraph 39.

(2) Soil, groundwater and surface water is to be protected by the use of a geological barrier combined with—

- (a) a bottom liner during the operational phase of the landfill, and
- (b) a top liner following closure and during the after-care phase.

(a) 2004 asp 6.

(b) S.I. 1994/2716, as relevantly amended by S.S.I. 2019/113.

(3) The geological barrier must comply with the requirements of sub-paragraph (4) and must also provide sufficient attenuation capacity to prevent a potential risk to soil and groundwater.

(4) The landfill base and sides must consist of a mineral layer which provides protection of soil, groundwater and surface water at least equivalent to that resulting from the following permeability and thickness requirements—

- (a) in a landfill for hazardous waste—
 - (i) $K \leq 1.0 \times 10^{-9}$ metre per second,
 - (ii) thickness ≥ 5 metres,
- (b) in a landfill for non-hazardous waste—
 - (i) $K \leq 1.0 \times 10^{-9}$ metre/second,
 - (ii) thickness ≥ 1 metre,
- (c) in a landfill for inert waste—
 - (i) $K \leq 1.0 \times 10^{-7}$ metre/second,
 - (ii) thickness ≥ 1 metre,

(5) Where the geological barrier does not meet the requirements of sub-paragraph (4) naturally, it may be completed artificially and reinforced by other means giving equivalent protection, but in any such case a geological barrier established by artificial means must be at least 0.5 metres thick.

(6) A leachate collection and sealing system to ensure that leachate accumulation at the base of the landfill is kept to a minimum must also be provided in any hazardous or non-hazardous landfill and must include an artificial sealing liner and a drainage liner greater than, or equal to 0.5 metres.

(7) Where the potential hazards to the environment indicate that the prevention of leachate formation is necessary, surface sealing may be required taking account of the requirements in table 14—

Table 14

<i>Landfill category</i>	<i>Non-hazardous</i>	<i>Hazardous</i>
Gas drainage layer	Required	Not required
Artificial sealing liner	Not required	Required
Impermeable mineral layer	Required	Required
Drainage layer > 0.5 metres	Required	Required
Topsoil cover > 1 metre	Required	Required

(8) The requirements of sub-paragraphs (3) to (7) may be reduced to an appropriate extent if on the basis of an assessment of environmental risks—

- (a) it has been decided in accordance with paragraph 39(2) that the collection and treatment of leachate is not necessary, or
- (b) it is established that the landfill poses no potential hazard to soil, groundwater or surface water.

Gas control

41.—(1) Appropriate measures must be taken in order to control the accumulation and migration of landfill gas.

(2) Landfill gas must be collected from all landfills receiving biodegradable waste and the landfill gas must be treated and, to the extent possible, used.

(3) The collection, treatment and use of landfill gas under sub-paragraph (2) must be carried on in a manner which minimises damage to or deterioration of the environment and risk to human health.

(4) Landfill gas which cannot be used to produce energy must be flared.

Nuisances and hazards

42.—(1) Measures must be taken to minimise the nuisances and hazards arising from the landfill in relation to—

- (a) emissions of odours and dust,
- (b) wind-blown materials,
- (c) noise and traffic,
- (d) birds, vermin and insects,
- (e) formation of aerosols,
- (f) fires.

(2) The landfill must be equipped so that dirt originating from the site is not dispersed onto public roads and the surrounding land.

Stability

43.—(1) The placement of waste must ensure stability of all the waste on the site, and associated structures, and in particular must avoid slippages.

(2) Where an artificial barrier is used, the geological substratum must be sufficiently stable, taking into account the morphology of the landfill, to prevent settlement that may cause damage to the barrier.

Site security

44.—(1) The landfill must be secured to prevent free access to the site.

(2) The gates of the landfill must be locked outside operating hours.

(3) The system of control and access to each facility must contain a programme of measures to detect and discourage illegal dumping in the facility.

Site requirements for the temporary storage of mercury

45.—(1) A storage site for the temporary storage of mercury for more than one year must comply with the requirements in sub-paragraphs (2) to (12).

(2) Mercury must be stored separately from other waste.

(3) Containers of mercury must—

- (a) be stored in collecting basins suitably coated so as to be free of cracks and gaps and impervious to mercury,
- (b) have a containment volume adequate for the quantity of mercury stored.

(4) The storage site must—

- (a) be provided with engineered or natural barriers that are adequate to protect the environment against mercury emissions,
- (b) have a containment volume adequate for the total quantity of mercury stored.

(5) The storage site floor must—

- (a) be covered with mercury-resistant sealants, and
- (b) have a slope and a collection sump.

(6) The storage site must be equipped with a fire protection system.

(7) Storage must be arranged in a way that ensures that all containers are easily retrievable.

(8) A continuous mercury vapour monitoring system with a sensitivity of at least 0.02 mg mercury/m³ must be installed in the storage site.

(9) The system referred to in sub-paragraph (8) must—

- (a) include sensors positioned at ground level and head level,
 - (b) include a visual and acoustic alert system, and
 - (c) be maintained annually.
- (10) The storage site and the containers must be visually inspected by the authorised person at least once a month.
- (11) The authorised person of the landfill must on a leak being detected—
- (a) immediately take all necessary action to avoid any emission of mercury to the environment and restore the safety of the storage of the mercury, and
 - (b) treat the leak as causing significant environmental harm for the purposes of paragraph 13.
- (12) Emergency plans and adequate protective equipment suitable for handling mercury must be available on site.”

DRAFT

SCHEDULE 5

Regulation 8(2)

NEW SCHEDULE 14 TO BE INSERTED INTO THE 2018 REGULATIONS

“SCHEDULE 14

Regulation 6(3)

MANAGEMENT OF SEPARATELY COLLECTED RECYCLABLE WASTE AND OPERATING A MATERIALS FACILITY

PART 1

Scope and Interpretation

Scope

- 1.—(1) This schedule applies to the activities of —
 - (a) management of separately collected waste,
 - (b) operating a materials facility,
- (2) Paragraph 2 applies for the interpretation of —
 - (a) this schedule,
 - (b) the definition of operating a materials facility,
- 2.—(1) Operating a materials facility does not include—
 - (a) activity at a facility or part of a facility where all the waste material received during a reporting period as specified in the Materials Recovery Code is attributable exclusively to a single supplier, unless the facility or part of a facility is a materials recovery facility,
 - (b) activity at a bring site,
 - (c) the waste management of WEEE, or waste batteries,
- (2) in this paragraph, “bring site” has the same meaning as in section 45C(7) of the Environmental Protection Act 1990(a).

Interpretation: General

3. In this Schedule—

“dry recyclable waste” means separately collected waste, where such waste is comprised of —

 - (a) glass
 - (b) metals
 - (c) plastics
 - (d) paper
 - (e) card (including cardboard), and

(a) c. 43. Section 45C was added by S.S.I. 2012/148 and amended by S.S.S. 2020/314.

(f) fibre-based composite material

“dry waste stream” means a quantity of dry recyclable waste of the same type,

“fibre-based composite material” means packaging material which is made of paperboard or paper fibres, laminated with plastic, and which may also have layers of other materials, to form a single unit that cannot be separated by hand,

“materials facility” includes —

- (a) a materials recovery facility, and
- (b) a facility where dry recyclable waste is consolidated into bulk quantities (whether as a first point of consolidation or following the first consolidation of bulk quantities, transferred from other suppliers), for the purpose of selling it, or transferring it to other facilities or persons to enable that material to be prepared for reuse or recycling,

“materials recovery facility” means a facility where dry recyclable waste is treated in order to separate that waste into a dry waste stream or streams,

“Materials Recovery Code” means the Code of Practice on Sampling and Reporting at Materials Recovery Facilities issued by the Scottish Ministers on 2nd March 2015 as it may be amended from time to time,

“separately collected waste” means waste collected and transported in accordance with section 34(2I) of the 1990 Act(a).

PART 2

Amendments to the common framework

Authorisations: separately collected recyclable waste

4. SEPA must ensure that an authorisation for the management of separately collected recyclable waste includes such conditions as it considers appropriate to ensure the prohibition of mixing of separately collected waste with any other waste or any material, to the extent that mixing would hamper further recycling,

Authorisations: Materials Recovery Code

5. SEPA must ensure that an authorisation for operating a materials facility includes such conditions as it considers appropriate to ensure compliance with the Materials Recovery Code.”

(a) Subsection (2I) was substituted by S.S.I. 2020/314.

SCHEDULE 6

Regulation 8(2)

NEW SCHEDULE 15 TO BE INSERTED INTO THE 2018 REGULATIONS

“SCHEDULE 15

Regulation 6(3)

MANAGEMENT OF WASTE MOTOR VEHICLES

PART 1

Scope and Interpretation

Scope

1. This schedule applies to the management of waste motor vehicles.

Interpretation: General

2. In this Schedule—

“depollution” in relation to a waste motor vehicle, means the carrying out on it of any of the operations described in paragraph 7 of this schedule that are possible (or, in the case of a component identified as containing mercury, feasible) in respect of it, and only when all such operations have been completed will a waste motor vehicle qualify as “depolluted”,

“End-of-Life Vehicle” means a vehicle which is waste,

“the 2003 Regulations” means the End-of-Life Vehicles Regulations 2003(a),

“hazardous materials and components” means any material or components containing a hazardous substance,

“hazardous substance” means any substance which fulfils the criteria for any of the following hazard classes or categories set out in Annex I of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures(b)—

- (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F,
- (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10,
- (c) hazard class 4.1,
- (d) hazard class 5.1,

“shredder” means any device used for tearing into pieces or fragmenting end-of-life vehicles, including for the purpose of obtaining directly reusable metal scrap,

“storage” includes keeping and temporary storage,

(a) S.I. 2003/2635.

(b) EUR 1272/2008 as amended by S.I. 2019/720.

“treatment” means any activity after the end-of-life vehicle has been handed over to a facility for depollution, dismantling, shearing, shredding, recovery or preparation for disposal of the shredder wastes, and other operation carried out for the recovery and/or disposal of the end-of-life vehicle and its components,

“vehicle” means—

- (a) any vehicle designated as category M1 or N1 as defined in Article 4 of Regulation (EU) 2018/858 of the European Parliament and of the Council of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles(a), and
- (b) three-wheel motor vehicles within the meaning of Article 4 and Annex 1 of Regulation (EU) No 168/2013 of the European Parliament and of the Council on the approval and market surveillance of two- or three-wheel vehicles and quadricycles(b), but excluding any vehicle of category L5e,

“waste motor vehicle” means a motor vehicle of any type that is waste.

PART 2

Amendments to the Common Framework

Authorisations: general

3. The treatment of waste motor vehicles may only be authorised by permit or registration.

Authorisations: general conditions

4. SEPA must ensure that an authorisation for the treatment of waste motor vehicles includes such conditions as it considers appropriate to ensure that—

- (a) stripping of waste motor vehicles is done in a way that best reduces any adverse impact on the environment, before any further treatment or any equivalent arrangement is undertaken,
- (b) any components or materials labelled or otherwise identifiable in accordance with regulation 18(2) of the 2003 Regulations are stripped before any further treatment,
- (c) depollution of the waste motor vehicle is completed as soon as possible,
- (d) hazardous materials and components are removed from waste motor vehicles and segregated in such a way so as not to contaminate any part of a vehicle that is to be shredded,
- (e) stripping or storage of waste motor vehicles is carried out to ensure the suitability of components for reuse or recovery, and in particular, recycling.

Authorisations: storage prior to treatment

5. SEPA must ensure that an authorisation for the treatment or storage of waste motor vehicles includes such conditions as it considers appropriate to ensure that storage of a waste motor vehicle prior to treatment is only carried out at a site—

- (a) having, in appropriate areas, impermeable surfaces and provided with spillage collection facilities, decanters and cleanser-degreasers, and

(a) EUR 2018/858 as amended by S.I. 2022/1273.

(b) EUR 2018/168 as amended by S.I. 2019/648.

- (b) provided with equipment for the treatment of water (including rainwater) in compliance with all applicable legislation concerning health and environmental matters.

Authorisations: site requirements

6. SEPA must ensure that an authorisation for the treatment of a waste motor vehicle includes such conditions as it considers appropriate to ensure that treatment is only carried out at a site—

- (a) having, in appropriate areas, impermeable surfaces and provided with spillage collection facilities, decanters and cleanser-degreasers,
- (b) provided with storage facilities that are appropriate for dismantled spare parts, including impermeable storage facilities for spare parts that are contaminated with oil,
- (c) provided with containers that are appropriate for the storage of batteries (whether electrolyte neutralisation is carried out on-site or elsewhere), filters, and condensers containing any PCB (Polychlorinated Biphenyls) or PCT (Polychlorinated Terphenyls) or both,
- (d) provided with storage tanks that are appropriate for the separate segregated storage of any fluid from a waste motor vehicle,
- (e) provided with equipment for the treatment of water (including rainwater) in compliance with all applicable legislation concerning health and environmental matters,
- (f) at which there is appropriate storage for used tyres without excessive stockpiling, and minimising any risk of fire.

Authorisations: required treatment operations

7. SEPA must ensure that an authorisation for the treatment of waste motor vehicles includes such conditions as it considers appropriate to ensure that treatment operations for the depollution of waste motor vehicles consist of—

- (a) the removal of the battery or batteries,
- (b) the removal of the liquefied gas tank,
- (c) the removal of neutralisation of all potentially explosive components (including air bags),
- (d) the removal and separate collection and storage of all—
 - (i) fuel,
 - (ii) motor oil,
 - (iii) transmission oil,
 - (iv) gearbox oil,
 - (v) hydraulic oil,
 - (vi) cooling liquids,
 - (vii) antifreeze,
 - (viii) brake fluids,
 - (ix) air-conditioning system fluids,
 - (x) any other fluid contained in the vehicle, but excluding any fluid which is necessarily retained for the re-use of the part concerned,
- (e) the removal, so far as is feasible, of all components identified as containing mercury.

Authorisations: recovery and recycling

8. SEPA must ensure that an authorisation for the treatment of a waste motor vehicle includes such conditions as it considers appropriate to ensure that—

- (a) where an article or material listed below is present in a waste motor vehicle, no treatment of that vehicle prevents the removal of that article or material for the purposes of recycling—
 - (i) catalyst or catalysts,
 - (ii) all metal components containing one or more of copper, aluminium and magnesium,
 - (iii) tyres,
 - (iv) all large plastic components (including bumpers, the dashboard, and any fluid container),
 - (v) glass,
- (b) where an article or material listed in sub-paragraph (a) is removed it is done so in a manner that best promotes its recycling.
- (c) Any storage operation is carried out in a manner that avoids damage to—
 - (i) any component containing a fluid or fluids,
 - (ii) any recoverable component,
 - (iii) any spare part.”

SCHEDULE 7 Regulation 8(2)
NEW SCHEDULE 16 TO BE INSERTED INTO THE 2018
REGULATIONS

“SCHEDULE 16 Regulation 6(3)
MANAGEMENT OF WASTE ELECTRICAL AND
ELECTRONIC EQUIPMENT

PART 1
Scope and interpretation

Scope

1. This schedule applies to the management of waste electrical and electronic equipment.

Interpretation: General

2. In this Schedule—

“electrical and electronic equipment (EEE)” means equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields and designed for use with a voltage rating not exceeding 1 000 volts for alternating current and 1 500 volts for direct current,

“removal” means manual, mechanical, chemical, or metallurgic handling with the result that hazardous substances, mixtures and components are contained in an identifiable stream or are an identifiable part of a stream within the treatment process,

“identifiable” means that a substance, mixture or component can be monitored to verify environmentally safe treatment,

“waste electrical and electronic equipment (WEEE)” means electrical or electronic equipment which is waste.

PART 2
Amendments to the Common Framework

Authorisation Conditions: treatment of WEEE

3.—(1) SEPA must ensure that an authorisation for the storage and or treatment of WEEE includes such conditions as it considers appropriate to ensure that storage or treatment (or both) of WEEE is carried out in accordance with the requirements in paragraph (2).

(2) For the purposes of paragraph (1), the requirements are—

- (a) in relation to treatment other than preparation for re-use, all fluids are removed, and further relevant treatment is carried out in accordance with paragraph 4,
- (b) best available treatment, recovery and recycling techniques (BATRRT) are used,

- (c) sites for storage including temporary storage prior to treatment meet the requirements in paragraph 5,
- (d) sites for treatment meet the requirements in paragraph 6.

(3) In determining the best available treatment, recovery and recycling techniques (BATRRRT), SEPA may have regard to any applicable Scottish, UK or EU guidance relating to the best available treatment, recovery and recycling techniques (BATRRRT) for WEEE.

PART 3

Technical Provisions

Selective treatment for materials and components of WEEE

4.—(1) The following substances, mixtures and components must be removed from any separately collected WEEE—

- (a) polychlorinated biphenyls (PCB) containing capacitors in accordance with Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT)(a),
- (b) mercury containing components, such as switches or backlighting lamps,
- (c) batteries,
- (d) printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimetres,
- (e) toner cartridges, liquid and paste, as well as colour toner,
- (f) plastic containing brominated flame retardants,
- (g) asbestos waste and components which contain asbestos,
- (h) cathode ray tubes,
- (i) chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), or hydrofluorocarbons (HFC), hydrocarbons (HC),
- (j) gas discharge lamps,
- (k) liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimetres and all those back-lighted with gas discharge lamps,
- (l) external electric cables,
- (m) components containing refractory ceramic fibres as described in Commission Directive 97/69/EC of 5 December 1997 adapting to technical progress for the 23rd time Council Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances(b),
- (n) components containing radioactive substances as defined in paragraph 4(1) of schedule 8 of the Regulations,
- (o) electrolyte capacitors containing substances of concern (height more than 25 mm, diameter more than 25 mm or proportionately similar volume).

(2) The components of separately collected WEEE in this paragraph must be treated as indicated—

- (a) fluorescent coating must be removed from cathode ray tubes,

(a) OJ L 243/31, 24.9.1996.

(b) OJ L 343, 13.12.1997.

- (b) ozone depleting gases or gases with a global warming potential (GWP) above 15 must be properly extracted from equipment and properly treated.
 - (c) ozone depleting gases referred to in head (b) must be treated in accordance with Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer^(a),
 - (d) mercury must be removed from gas discharge lamps.
- (3) Sub-paragraphs (2) and (3) are to be applied so that environmentally sound preparation for re-use and recycling of components or whole appliances is not hindered.

Technical requirements for sites for storage of WEEE prior to treatment

5. Sites for storage, including temporary storage, of WEEE prior to its treatment must have—

- (a) impermeable surfaces for appropriate areas, including—
 - (i) provision of spillage collection facilities, and
 - (ii) where appropriate, decanters and cleanser-degreasers,
- (b) weatherproof covering for appropriate areas.

Technical requirements for WEEE treatment sites

6. WEEE treatment sites must have—

- (a) scales to weigh the treated waste,
- (b) impermeable surfaces for appropriate areas, including—
 - (i) provision of spillage collection facilities, and
 - (ii) where appropriate, decanters and cleanser-degreasers,
- (c) appropriate storage for disassembled spare parts,
- (d) appropriate containers for storage of batteries, PCBs/PCTs containing capacitors and other hazardous waste such as radioactive waste,
- (e) equipment for the treatment of water.”

^(a) EUR 1005/2009 as amended by S.I. 2019/583.

SCHEDULE 8

Regulation 8(2)

NEW SCHEDULE 17 TO BE INSERTED INTO THE 2018 REGULATIONS

“SCHEDULE 17

Regulation 6(3)

MANAGEMENT OF WASTE BATTERIES

PART 1

Scope and Interpretation

Scope

1. This schedule applies to the activity of treating and the storage on a treatment facility, of waste batteries.

Interpretation

2. In this schedule—

“battery” means any source of electrical energy generated by direct conversion of chemical energy and consisting of one or more primary battery cells (non-rechargeable) or one or more secondary battery cells (rechargeable, an accumulator), but does not include—

- (a) equipment connected with the protection of essential security interests, arms, munitions and war material, with the exclusion of products that are not intended for specifically military purposes, or
- (b) equipment designed to be sent into space,

“treatment” means any activity carried out on waste batteries and accumulators after they have been handed over to a treatment facility for sorting, preparation for recycling or preparation for disposal.

PART 2

Amendments to Common Framework

Authorisations: conditions

3. SEPA must ensure that an authorisation for the treatment and storage at a treatment facility of waste batteries must include such conditions as it considers appropriate to ensure that—

- (a) treatment, at a minimum, includes the removal of all fluids and acids,
- (b) treatment, and any storage, including temporary storage, takes place on impermeable surfaces with suitable weatherproof covering or in suitable containers.”

SCHEDULE 9

Regulation 8(2)

NEW SCHEDULE 18 TO BE INSERTED INTO THE 2018 REGULATIONS

“SCHEDULE 18

Regulation 6(3)

RECOVERY OF WASTE BY APPLICATION TO LAND FOR THE PURPOSE OF SOIL IMPROVEMENT

PART 1

Scope and interpretation

Scope

- 1.—(1) The schedule applies to—
 - (a) the recovery of waste by application to land for the purpose of soil improvement,
 - (b) the temporary storage of waste at the place where it is to be used for the purpose in sub-paragraph (a).
- (2) paragraph 2 applies for the interpretation of—
 - (a) this schedule,
 - (b) the definition of “recovery of waste by application to land for the purpose of soil improvement”.
- 2.—(1) In this schedule “soil improvement” means any one or more of the following—
 - (a) provision of required plant nutrients to the soil,
 - (b) provision of organic matter to the soil,
 - (c) improvement of the chemical properties of the soil,
 - (d) improvement of the physical properties of the soil,
 - (e) reduction of any soil moisture deficit,for the purpose of enhancing plant growth,
- (2) “soil improvement” does not include the creation of new soils as part of the restoration of former industrial land.

Interpretation: general

3. In this schedule—

“agriculture” means the growing of all types of commercial food crops, including for stock-rearing purposes,

“conventionally treated sewage sludge” means sewage sludge which has been treated to ensure that at least 99% of pathogens have been destroyed,

“domestic sewage” means sewage which is not surface water or trade effluent,

“enhanced treated sewage sludge” means sewage sludge that has been treated to ensure it is free from salmonella and that 99.9999% of pathogens have been destroyed (a 6 log reduction)

“plant” means living plants and the following living parts of plants—

 - (a) seeds,

- (b) fruits,
- (c) vegetables,
- (d) tubers, corns, bulbs, rhizomes, roots, rootstocks, stolons,
- (e) shoots, stems, runners,
- (f) flowers,
- (g) trees,
- (h) leaves, foliage,
- (i) live pollen and spores,
- (j) buds, budwood, cutting, scions, grafts,

“septic tank sludge” means residual sludge from septic tanks and other similar installations for the treatment of sewage,

“sewage” includes domestic sewage, surface water and trade effluent,

“sewage sludge” means—

- (a) residual sludge from sewage plants treating domestic or urban waste waters and from other sewage plants treating waste waters of a composition similar to domestic and urban waste waters,
- (b) residual sludge from septic tanks and other similar installations for the treatment of sewage,
- (c) residual sludge from sewage plants other than those referred to in sub-paragraphs (a) and (b)

“surface water” means the run-off of rainwater from roofs any paved ground surface within the curtilage of premises,

“sustainable urban drainage system” means a drainage system which—

- (a) facilitates attenuation, settlement or treatment of surface water from 2 or more premises (whether or not together with road water), and
- (b) includes one or more of the following: inlet structures, outlet structures, swales, constructed wetlands, ponds, filter trenches, attenuation tanks and detention basins (together with any associated pipes and equipment),

“trade effluent” means any liquid, either with or without particles of matter in suspension therein, which is wholly or in part produced in the course of any trade or industry carried on at trade premises, including trade waste waters or waters heated in the course of any trade or industry and, in relation to any trade premises, means any such liquid as aforesaid which is so produced in the course of any trade or industry carried on at those premises,

“treated sewage sludge” means sewage sludge which has undergone biological, chemical or heat treatment, or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use,

“use” means the spreading of sewage sludge on the soil or any other application of sewage sludge on and in the soil.

PART 2

Amendments to the Common Framework

Authorisations: general

4. SEPA must ensure that an authorisation for recovery of waste by application to land for the purpose of soil improvement includes such conditions as it considers appropriate to ensure that—

- (a) waste used has not been mixed with any material which does not itself provide soil improvement,
- (b) application of waste does not impair the quality of the soil, surface water and groundwater,
- (c) nutrient needs of plants are taken into account,
- (d) application of waste does not result in the addition of more than 250 kilograms per hectare per year of total nitrogen,
- (e) waste is not applied in such amounts that the crop requirement for nitrogen is exceeded,
- (f) waste is not applied in excess of the amount required to maintain the soil phosphorus status at acceptable agronomic levels,
- (g) waste must not be applied to land where—
 - (i) the pH value of the soil is less than 5 unless the exception in sub-paragraph (ii) applies.
 - (ii) this sub-paragraph applies where the waste to be applied has a liming value to increase the pH of the soil to 5 or above,
- (h) the application of the waste to the land will not cause soil pH to fall below 5 even temporarily.

Authorisation Conditions: soil concentrations

5. SEPA must ensure that an authorisation for recovery of waste by application to land for the purpose of soil improvement includes such conditions as it considers appropriate to ensure that—

- (a) no waste is applied to any land for the improvement of the soil where the concentration in the soil of any of the [potentially toxic] elements listed in column 1 of Table 1 exceeds the limit specified in column 2 with reference to the specified pH values,
- (b) where the limit referred to in sub-paragraph (a) is not exceeded at the time of application, it must not be exceeded as a result of the application of waste,
- (c) no waste is applied to land for the improvement of soil where the average rate of addition to the land by means of the waste of any of the [potentially toxic] elements listed in column 1 of Table 1 exceeds the limit specified in column 3,

Table 1: Maximum permissible concentrations and addition rates of Potentially Toxic Elements (PTE) in soil (mg/kg dry soil)

<i>PTE</i>	<i>Maximum permissible concentration of PTE in soil (mg/kg dry solid)</i>				<i>Maximum permissible annual rate of PTE addition (kg/ha)</i>
	<i>pH</i> 5.0 - <5.5	<i>pH</i> 5.5 - <6.0	<i>pH</i> 6.0 – 7.0	<i>pH</i> (1) >7.0	
Copper	80	100	135	200	7.5
Nickel	50	60	75	110	3
Cadmium	0.5	0.5	1	1.5	0.15
Zinc	<i>pH</i> 5.0 and above				15

Lead	300	15
Mercury	1	0.1

Authorisation Conditions: sewage sludge

6. SEPA must ensure that an authorisation for recovery of waste by application to agricultural land for the purpose of soil improvement includes such conditions as it considers appropriate to ensure—

- (a) no sewage sludge other than conventionally treated or enhanced treated sewage sludge is to be applied to any land for the improvement of soil,
- (b) no fruit or vegetable crops, other than fruit trees, are growing or being harvested in the soil at the time of application of sewage sludge,
- (d) conventionally treated sewage sludge is not applied to grass to be used for grazing.

Authorisation Conditions: soil sampling

7. SEPA must ensure that an authorisation for the recovery of waste by application to land for the purpose of soil improvement includes such conditions as it considers appropriate to ensure that soil is tested and analysed in accordance with the following conditions—

- (a) soil is tested and analysed—
 - (i) for all the parameters specified in columns (1) and (2) of Table 2 no more than one year prior to the first application to that land,
 - (ii) for all subsequent applications, for the parameters and at the frequencies specified in columns (1) and (2) of Table 2,
- (b) for each unit of land (not exceeding 5 hectares) on which waste is to be used, a representative soil sample is obtained by mixing together 25 core samples, each taken to the depth of the topsoil or 15 centimetres, whichever is deeper,
- (c) soil sampling, handling and testing is conducted in accordance with technical guidance produced by SEPA under regulation 66(2),
- (d) the analysis requisite to ascertain the concentration of metals in samples is carried out following strong acid digestion and the limit of detection for each metal must not exceed 10% of the appropriate limit value specified in the soil table or, in the case of chromium, 25 milligrams per kilogram of dry matter.

Table 2

Soil sampling frequencies

<i>Every 5 years</i>	<i>Every 10 years</i>
Soil pH,	Organic matter,
Extractable P,	Total carbon,
Extractable K,	Cadmium,
Total nitrogen,	Copper,
Soil structure,	Mercury,
Extractable Mg	Nickel,
(mg/l dw) if claimed	Lead,
to be of benefit,	Zinc.
Any PTE (mg/kg	
dw) that in previous	
analysis has shown	
to exceed 90% of the	
limit.	

Authorisation Conditions: waste sampling

8. SEPA must ensure that an authorisation for the recovery of waste by application to land for the purpose of soil improvement include such conditions as it considers appropriate to ensure that—

- (a) sewage sludge is sampled or tested—
 - (i) at intervals of not more than six months, and in any event where changes occur in the characteristics of the wastewater being treated,
 - (ii) representative samples of sewage sludge intended to be used on agricultural land are taken after processing, but prior to delivery to the user,
 - (iii) samples are analysed so as to determine—
 - (aa) pH value,
 - (bb) percentage content of dry matter, organic matter, nitrogen and phosphorus,
 - (cc) concentration in milligrams per kilogram of dry matter of chromium and each of the elements listed in column 1 of Table 1 above.
- (b) waste other than sewage sludge produced and supplied for the purpose of application to land is sampled and tested—
 - (i) not more than 2 years before application to land,
 - (ii) in accordance with SEPA guidance.

Authorisation conditions: records

9. SEPA must ensure that an authorisation for the recovery of waste by application to land for the purpose of soil improvement includes such conditions as it considers appropriate to ensure that records of the following information are kept and provided to SEPA at such time as SEPA may request—

- (a) the quantities of waste produced, and the quantities supplied for use in agriculture,
- (b) the composition and properties of the waste sludge in relation to the parameters referred to Table 1,
- (c) the type of treatment carried out in relation to any treated sewage sludge,
- (d) the names and addresses of the recipients of the waste and the place where the waste is to be used.”

SCHEDULE 10

Regulation 8(2)

NEW SCHEDULE 19 TO BE INSERTED INTO THE 2018 REGULATIONS

“SCHEDULE 19

Regulation 6(3)

INDUSTRIAL EMISSIONS ACTIVITIES

PART 1

Scope and interpretation

Scope

- 1.—(1) This schedule applies to industrial emissions activities.
- (2) paragraph 2 applies for the interpretation of—
 - (a) this schedule,
 - (b) schedules 20-24,
 - (c) the definition of “industrial emissions activities.”
- 2.—(1) Industrial emissions activities do not include—
 - (a) research activities,
 - (b) development activities,
 - (c) the testing of new products and processes,
- (2) Sub-paragraph (1) does not apply to the incineration and co-incineration of liquid or solid waste at a waste incineration plant or co-incineration plant.

Interpretation: general

- 3.—(1) In this schedule and schedules 20-24—

“BAT reference document” means a document, resulting from the exchange of information organised for the purposes of Article 13 of the Industrial Emissions Directive(a), drawn up for defined activities and describing, in particular, applied techniques, present emissions and consumption levels, techniques considered for the determination of best available techniques as well as BAT conclusions and any emerging techniques, giving special consideration to the criteria listed in paragraph 4 of Schedule 20,

“BAT conclusions” means—

 - (a) a document annexed to a Decision establishing best available techniques which has been amended by the Air Quality (Miscellaneous Amendment and Revocation of Retained Direct EU Legislation) (EU Exit) Regulations 2018(b),
 - (b) a document specified in regulations made in exercise of the power in regulation 9 of the Environment and Wildlife (Legislative Functions) (EU Exit) Regulations 2019(c),

(a) Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions (integrated pollution prevention and control, OJ L 334, 17.12.2010, p. 17, as corrected by Corrigendum (OJ L 158, 19.6.2012, p. 25).

(b) S.I. 2018/1407.

(c) S.I. 2019/473 as amended by S.I. 2019/1424.

laying down the conclusions on best available techniques, their description, information to assess their applicability, the emission levels associated with the best available techniques, associated monitoring, associated consumption levels and, where appropriate, relevant site remediation measures,

“biomass” means any of the following—

- (a) products consisting of any vegetable matter from agriculture or forestry which can be used as a fuel for the purpose of recovering its energy content,
- (b) the following waste—
 - (i) vegetable waste from agriculture and forestry,
 - (ii) vegetable waste from the food processing industry, if the heat generated is recovered,
 - (iii) fibrous vegetable waste from virgin pulp production and from production of paper from pulp, if it is co-incinerated at the place of production and the heat generated is recovered,
 - (iv) cork waste,
 - (v) wood waste with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating and which includes, in particular, such wood waste originating from construction and demolition waste,

“combustion plant” means any technical apparatus in which fuels are oxidised in order to use the heat thus generated,

“directly associated activity”—

- (a) in relation to a schedule 20 activity, means an activity which—
 - (i) has a technical connection with the schedule 20 activity,
 - (ii) is carried on at the same site,
 - (iii) could have an effect on emissions and pollution,
- (b) in relation to a solvent emissions activity, means an activity which—
 - (i) has a technical connection with the solvent emissions activity,
 - (ii) is carried on at the same site,
 - (iii) could have an effect on any discharge of volatile organic compounds into the environment,

“emerging techniques” means a novel technique for an industrial activity that, if commercially developed, could provide either—

- (a) a higher general level of protection of the environment, or
- (b) at least the same level of protection of the environment and higher cost savings, than existing best available techniques,

“emission” means the direct or indirect release of substances, vibrations, heat or noise from individual or diffuse sources in the installation or plant into air, water or land,

“emission levels associated with BATs” means the range of emissions levels obtained under normal operating conditions using a BAT or a combination of BATs, as described in BAT conclusions, expressed as an average over a given period of time, under specified reference conditions,

“emission limit value” means the mass, expressed in terms of certain specific parameters, concentration and/or level of an emission, which may not be exceeded during one or more periods of time,

“environmental inspection” means all actions taken by or on behalf of SEPA to check and promote compliance of installations with permit conditions and, where necessary, to monitor the environmental impact of activities carried out under a permit, including as required—

- (a) site visits,
- (b) monitoring of emissions and checks of internal reports and follow-up documents,
- (c) verification of self-monitoring,
- (d) checking the techniques used,
- (e) checking the adequacy of environmental management of the installation,

“environmental quality standard” means the set of requirements which must be complied with at any given time, in respect of a particular environment as set out in domestic law,

“fuel” means any solid, liquid, or gaseous combustible material,

“groundwater” means water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil,

“hazardous substances” means substances or mixtures as defined in Article 3 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures^(a),

“Schedule 20 activity” means an activity listed in Part 4 of schedule 20 where the installed capacity is at or above the applicable threshold in that Schedule, whether or not the activity is carried on below the threshold,

“Industrial Emissions Directive” means Directive 2010/75 of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast)^(b),

“installation” means a stationary technical unit where one or more schedule 20 activity or organic solvents activity are carried out, and references to an installation include references to part of an installation and to any other directly associated activities on the same site,

“organic compound” means any compound containing at least the element carbon and one or more of hydrogen, halogens, oxygen, sulphur, phosphorous, silicon or nitrogen, with the exception of carbon oxides and inorganic carbonates and bicarbonates,

“organic solvent” means any volatile organic compound which is used alone or in combination with other agents, and without undergoing a chemical change, to dissolve raw materials, products or waste materials as a—

- (a) as a cleaning agent to dissolve contaminants,
- (b) as a dissolver,
- (c) as a dispersion medium,
- (d) as a viscosity adjuster,
- (e) as a surface tension adjuster,
- (f) as a plasticiser,
- (g) as a preservative,

“pollution” means the direct or indirect introduction, as a result of human activity, of substances, vibrations, heat or noise into air, water or land which may be harmful to human health, or cause offence to any human sense, or the quality of the environment, result in damage to material property, or impair or interfere with amenities and other legitimate uses of the environment.

“poultry” means a bird reared or kept in captivity for the production of meat or eggs for consumption, or other products, for restocking supplies of game or for the purposes of any breeding programme for the production of such categories of birds,

(a) EUR 2008/1272.

(b) OJ L 334, 17.12.2010, p. 17, as corrected by Corrigendum (OJ L 158, 19.6.2012, p. 25).

“small isolated system (SIS)” means any system with consumption of less than 3000 GWh in the year 1996, where less than 5% of annual consumption is obtained through interconnection with other systems,

“soil” means the top layer of the earth’s crust situated between the bedrock and the surface, the soil is composed of mineral particles, organic matter, water, air and living organisms,

“volatile organic compound (“VOC”)” means any organic compound as well as the fraction of creosote, having at 293.15 K a vapour pressure of 0.01 kPa or more, or having a corresponding volatility under the particular conditions of use,

“Waste Framework Directive” means Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives(a),

“waste incineration plant” means any stationary or mobile technical unit and equipment dedicated to the thermal treatment of waste, with or without recovery of the combustion heat generated, through the incineration by oxidation of waste as well as other thermal treatment processes, such as pyrolysis, gasification or plasma process, if the substances resulting from the treatment are subsequently incinerated,

“waste co-incineration plant” means any stationary or mobile technical unit whose main purpose is the generation of energy or production of material products and which uses waste as a regular or additional fuel or in which waste is thermally treated for the purpose of disposal through the incineration process by oxidation of waste as well as other thermal treatment processes, such as pyrolysis, gasification or plasma process, if the substances resulting from the treatment are subsequently incinerated,

(2) in this schedule, and schedules 20-24, “substance” does not include—

(a) radioactive substances as defined in paragraph 4 of schedule 8 of these Regulations,

(b) genetically modified micro-organisms as defined in Article 2(b) of Directive 2009/41/EC of the European Parliament and the Council of 6 May 2009 on the contained use of genetically modified micro-organisms(b),

(c) genetically modified organisms as defined in point 2 of Article 2 of Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms(c).

Interpretation: substantial change

4.—(1) In this schedule and schedules 20 – 24, “substantial change” means—

(a) a change in the nature or functioning, or an extension, of an installation or combustion plant, waste incineration or waste co-incineration plant which SEPA considers may—

(i) have significant negative effect on human health or the environment, or

(ii) which in itself constitutes the carrying on of an activity to which any of schedules 20-24 apply, that reaches any threshold capacity specified in those schedules and includes the activities in sub-paragraphs (2) and (3),

(b) the carrying on of a solvent emissions activity—

(a) OJ L 312, 22.11.2008, p.3, as amended by Commission Regulation (EU) No 1357/2014 (OJ L 365, 19.12.2014, p.89), Commission Directive (EU) 2015/1127 (OJ L 184, 11.7.2015, p13), Council Regulation (EU) 2017/997 (OJ L 150, 14.6.2017, p.1) and Directive (EU) 2018/851 (OJ L 150, 14.6.2018, p.109). Commission Directive (EU) 2015/1127 was corrected by Corrigendum (OJ L 297,13.11.2015, p.9) and Commission Regulation (EU) No 1357/2014 was corrected by Corrigendum (OJ L 42, 18.2.2017, p.43).

(b) OJ L 125, 21.5.2009, p. 75.

(c) OJ L 106, 17.4.2001, p. 1.

- (i) where there is a change of the nominal capacity leading to an increase in emissions of volatile organic compounds of more than 10 percent, unless head (ii) applies,
 - (ii) this head applies where a solvent emissions activity—
 - (aa) falls within the lower threshold band of items 1, 3a, 3b, 5, 6, 9, 11, 14, 17 or 18 of table 2 in schedule 22, or
 - (bb) falls under one of the other items of table 2 in schedule 22 and has a solvent consumption of less than 10 tonnes per year.
 - (iii) where head (ii) applies, where there is a change of the nominal capacity leading to an increase in emissions of volatile organic compounds of more than 25 percent,
 - (c) a change in the operation of a waste incineration plant or waste co-incineration plant in an installation which involves the incineration and co-incineration for the first time of hazardous waste,
- (2) in this paragraph—
- “nominal capacity” means the maximum mass input of organic solvents at the installation averaged over one day, if that installation is operated at its design output under conditions other than start up and shut down operations or relating to the maintenance of equipment.

Interpretation: best available techniques

5.—(1) For the purposes of this schedule and schedules 20-24, “best available techniques (“BAT”)” means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent, and where that is not practicable, to reduce emissions and the impact on the environment as a whole,

(2) In sub-paragraph (1)—

“techniques” includes both the technology used and the way in which an installation is designed, built, maintained, operated and decommissioned,

“available techniques” means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced within the United Kingdom as long as they are reasonably accessible to the operator,

“best” means most effective in achieving a high general level of protection of the environment as a whole.

Interpretation: threshold values

6.—(1) For the purposes of this schedule and schedule 20, threshold values generally refer to production capacities or outputs.

(2) Where several activities falling under the same activity description containing a threshold are operated in the same installation, the capacities of those activities are to be added together in order to determine whether a threshold is met.

(3) For the waste management activities in paragraphs 22 and 24(1) and (2) of schedule 20, the calculation in sub-paragraph (2) applies at the level specified for each of those activities in that schedule.

Interpretation: baseline and site reports

7. In this schedule and schedules 20 and 23—

- (a) “baseline report” means a report on the state of soil and groundwater contamination by hazardous substances which contains at least the following—
 - (i) information on the present use and, where available, on past uses of the site unless already provided as part of a site report for an existing site,
 - (ii) where available, existing information on soil and groundwater measurements that reflect the state at the time the report is drawn up or, alternatively, new soil and groundwater measurements having regard to the possibility of soil and groundwater contamination by those hazardous substances to be used, produced or released by the installation.
- (b) “site report” means a report that describes the condition of the site of the installation, and in particular it must—
 - (i) describe any soil and groundwater contamination at the site,
 - (ii) identify any pollutants in or on the land other than as described in head (i),
 - (iii) provide information on the present use of the site, and
 - (iv) provide any available information on past uses of the site.

PART 2

Amendments to Common Framework

Authorisations: General

8.—(1) An industrial emissions activity may only be authorised by a permit or registration,

(2) An industrial emissions activity which is carried out from time to time does not cease to require an authorisation in respect of the activity during those times when the activity is not carried out.

Authorisations: multiple installations and multiple operators

9.—(1) Where there is more than one authorised person in relation to a single authorisation for an installation, the authorisation must specify the responsibilities of each authorised person,

(2) An authorisation may cover two or more installations operated by the same authorised person on the same site,

(3) Where an authorisation covers two or more installations, the authorisation must contain conditions to ensure that each installation complies with the requirements of this schedule.

Authorisations: Incidents, accidents and non-compliance

10.—(1) SEPA must ensure that an authorisation for an industrial emissions activity includes such conditions as it considers appropriate to ensure that in the event of an incident or accident that significantly affects the environment, the authorised person must—

- (a) inform SEPA immediately,

- (b) immediately take measures to limit the environmental consequences of the incident or accident,
 - (c) prevent further possible incidents or accidents,
- (2) SEPA must ensure that an authorisation for an industrial emissions activity includes such conditions as it considers appropriate to ensure that in the event of a breach of conditions, the authorised person must —
- (a) immediately inform SEPA,
 - (b) immediately takes the measures necessary to ensure that compliance is restored within the shortest possible time,
 - (c) immediately cease operation of an installation or plant in the event of a breach of conditions that poses an immediate danger to human health or threatens to cause an immediate significant adverse effect upon the environment, until compliance is restored,
- (3) An existing authorisation for an industrial emissions activity which does not include conditions as required by sub-paragraphs (1) and (2) or a condition having equivalent effect is deemed to include the conditions in sub-paragraphs (1) and (2) until the date that SEPA varies the authorisation to include those conditions.

Authorisations: greenhouse gas emissions

11.—(1) SEPA must not include an emission limit value in an authorisation in respect of direct emissions of a greenhouse gas where emissions of that greenhouse gas from an installation are subject to conditions imposed in a greenhouse gas emissions permit under article 26(1) of the 2020 Order, unless SEPA considers the emission limit value is necessary to ensure that no significant environmental harm is caused,

(2) SEPA may impose authorisation conditions requiring that decarbonisation measures be implemented,

(3) SEPA may choose not to impose energy efficiency requirements in respect of combustion units or other units emitting carbon dioxide in relation to an installation for which there is a greenhouse gas emissions permit under article 26(1) of the 2020 Order,

(4) where an authorisation contains an emission limit value in respect of direct emissions of a greenhouse gas and emissions of that greenhouse gas have, since the granting of the authorisation, become subject to conditions imposed in a greenhouse gas emissions permit under article 26(1) of the 2020 Order, that emission limit value ceases for the time being to apply in relation to that installation unless SEPA considers that the emission limit value is necessary to ensure that no significant environmental harm,

(5) in this paragraph, “the 2020 Order” means the Greenhouse Gas Emissions Trading Scheme Order 2020(a).

PART 3

Duties of SEPA

Duties relating to Best Available Techniques

12.—(1) SEPA must ensure that it follows or is informed of—

- (a) developments in best available techniques,
- (b) publication of any new or updated BAT conclusions,

(a) S.I. 2020/1265

(2) SEPA must make the information referred to in sub-paragraph (1) available to the public,

(3) SEPA must where appropriate exercise its functions so as to encourage the development and application of emerging techniques, in particular for any technique identified in BAT reference documents or BAT conclusions.”

Duties related to Environmental Impact Assessments

13. SEPA must consider, in determining an application for an authorisation for a new installation, or a variation to an existing application as a result of a substantial change, any information obtained or conclusion arrived at in relation to an environmental impact assessment conducted under the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017^(a).

DRAFT

(a) S.S.I. 2017/102

SCHEDULE 11

Regulation 8(2)

NEW SCHEDULE 20 TO BE INSERTED INTO THE 2018 REGULATIONS

“SCHEDULE 20

Regulation 6(3)

SCHEDULE 20 EMISSIONS ACTIVITIES

PART 1

Interpretation

Interpretation: polluting substances

1.—(1) For the purposes of this schedule, the substances in sub-paragraphs (2) and (3) are “polluting substances”,

(2) polluting substances in air—

- (a) sulphur dioxide and other sulphur compounds,
- (b) oxides of nitrogen and other nitrogen compounds,
- (c) carbon monoxide,
- (d) volatile organic compounds,
- (e) metals and their compounds,
- (f) dust including fine particulate matter,
- (g) asbestos (suspended particulates, fibres),
- (h) chlorine and its compounds,
- (i) fluorine and its compounds,
- (j) arsenic and its compounds,
- (k) cyanides,
- (l) substances and mixtures which have been proven to possess carcinogenic or mutagenic properties or properties which may affect reproduction via the air,
- (m) polychlorinated dibenzodioxins and dibenzofurans,

(3) polluting substances in water —

- (a) organo-halogen compounds and substances which may form such compounds in the aquatic environment,
- (b) organo-phosphorous compounds,
- (c) organotin compounds,
- (d) substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment,
- (e) persistent hydrocarbons and persistent and bio-accumulable organic toxic substances,
- (f) cyanides,

- (g) metals and their compounds,
- (h) arsenic and its compounds,
- (i) biocides and plant protection products,
- (j) materials in suspension,
- (k) substances which contribute to eutrophication (in particular, nitrates and phosphates),
- (l) substances which have an unfavourable influence on the oxygen balance (and can be measured using parameters such as biochemical oxygen demand (BOD) and chemical oxygen demand (COD) etc.),
- (m) substances listed in Annex X to Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy^(a).

PART 2

Amendments to Common Framework

General principles

2.—(1) SEPA must exercise its relevant functions in relation to schedule 20 activities to ensure activities are carried on in accordance with the general aims in regulation 9 of these Regulations as read with sub-paragraph (2).

(2) The reference in regulation 9(2)(c) to “using resources in a sustainable way”, includes the principles—

- (a) that the generation of waste is prevented as set out in the Waste Framework Directive,
- (b) that where waste is generated, it is, in order of priority and as set out in the Waste Framework Directive, prepared for re-use, recycled, recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment.

BAT: General Principles

3. SEPA must where applicable set permit conditions in accordance with the following principles relevant to BAT—

- (a) best available techniques are applied as appropriate,
- (b) the relevant BAT applicable to an activity is as determined by SEPA,
- (c) BAT conclusions are the reference point for setting permit conditions,
- (d) stricter permit conditions than those achievable by the use of best available techniques as described in relevant BAT conclusions may be set,
- (e) emission limit values and equivalent parameters and technical measures as required by paragraph 9 must be based on best available techniques, without prescribing the use of any technique or specific technology,

^(a) OJ L 327, 22.12.2000, p.1 as amended by Decision No 2455/2001/EC (OJ L331, 15.12.2001, p.1), Directive 2008/32/EC (OJ L 81, 20.3.2008, p. 60), Directive 2008/105/EC (OJ L 348, 24.12.2008, p. 84), Directive 2009/31/EC (OJ L 140, 5.6.2009, p. 114), Directive 2013/39 (OJ L 226, 24.8.2013, p. 1), Directive 2013/64/EU (OJ L 353, 28.12.2013, p. 8), and Directive 2014/101/EU (OJ L 311, 31.10.2014 at p 32).

- (f) where permit conditions are set on the basis of a best available technique not described in any of the relevant BAT conclusions—
 - (i) the technique must be determined by giving special consideration to the criteria listed in paragraph 5, and
 - (ii) must be in compliance with paragraphs 9 and 10,
- (g) where an activity or type of production process carried out at an installation is not covered by any of the BAT conclusions, or where those BAT conclusions do not address all of the potential environmental effects of the activity or process, SEPA must—
 - (i) engage with the authorised person,
 - (ii) set, after the engagement in head (i), the permit conditions, including emission limit values under paragraph 10, on the basis of the best available techniques that SEPA has determined for those activities or processes by giving special consideration to the criteria listed in paragraph 5,
- (h) where monitoring is required by paragraph 9, monitoring requirements are to be, where applicable, based on the conclusions on monitoring as described in the BAT conclusions,
- (i) where achieving an environmental quality standard requires stricter conditions than those achievable by the use of best available techniques, SEPA—
 - (i) must include additional measures in the permit,
 - (ii) may take into account measures other than permit conditions, which may be taken to comply with an environmental quality standard.

BAT: Criteria for determining

4. The following criteria are to be considered by SEPA in determining best available techniques—

- (a) the use of low-waste technology,
- (b) the use of less hazardous substances,
- (c) the furthering of recovery and recycling of substances generated and used in the process and of waste, where appropriate,
- (d) comparable processes, facilities or methods of operation which have been tried with success on an industrial scale,
- (e) technological advances and changes in scientific knowledge and understanding,
- (f) the nature, effects and volume of the emissions concerned,
- (g) the commissioning dates for new or existing installations,
- (h) the length of time needed to introduce the best available technique,
- (i) the consumption and nature of raw materials (including water) used in the process and energy efficiency,
- (j) the need to prevent or reduce to a minimum the overall impact of the emissions on the environment and the risks to it,
- (k) the need to prevent accidents and to minimise the consequences for the environment,
- (l) information published by public international organisations.

Duties relating to Standard Conditions

5.—(1) When determining standard conditions in relation to schedule 20 activities, SEPA must ensure an integrated approach and a high level of environmental protection equivalent to that achievable with individual permit conditions,

(2) when determining or revising standard conditions in relation to schedule 20 activities, SEPA must ensure that the conditions are based on the best available techniques for preventing, or where that is not practicable reducing, emissions from an activity, without prescribing the use of any specific technique or specific technology,

(3) SEPA must —

- (a) ensure standard conditions in relation to high emission activities are periodically reviewed, and
- (b) revise any such standard conditions whenever it considers it necessary to do so in order to—
 - (i) follow developments in best available techniques,
 - (ii) ensure compliance with assimilated and domestic law implementing the Industrial Emissions Directive.

Authorisations: general

6. A schedule 20 activity may only be authorised by permit.

Permits: Applications

7.—(1) An application for a schedule 20 activity, other than an organic solvents activity, must include—

- (a) a description of the installation and its activities,
 - (b) a description of the raw and auxiliary materials, other substances, and energy to be used in or generated by the installation,
 - (c) the sources of emissions from the installation,
 - (d) the nature and quantities of foreseeable emissions from the installation into each environmental medium and identification of significant effects of the emissions on the environment and human health,
 - (e) a site report,
 - (f) a baseline report where the activity involves the use, the production or release of relevant hazardous substances,
 - (g) a description of the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the installation,
 - (h) a description of measures for the prevention, preparation for re-use, recycling and recovery of waste generated by the installation,
 - (i) a description of further measures planned to comply with the general aims in regulation 9 of these Regulations as read with paragraph 3,
 - (j) a description of the measures proposed to monitor emissions,
 - (k) a description of the main alternatives to the proposed technology, techniques and measures considered by the applicant,
 - (l) a non-technical summary of this information.
- (2) (a) An application for a schedule 20 activity which is an organic solvents activity must include the items in sub-paragraph (1) with the exception of sub-paragraphs (1)(b) and (1)(h), and
- (b) the reference to emissions into each environmental medium in sub-paragraph (1)(d) is to be read as a reference to emissions into the air,

(3) SEPA may on request by the applicant waive the requirement in sub-paragraph (1)(f) to provide a baseline report, having regard to the purpose to the possibility of soil and groundwater contamination,

(4) (a) Where information produced in response to the legislation in sub-paragraph (b) fulfils any of the requirements of sub-paragraph (1), it may be included in, or attached to the application,

- (b) (i) the Control of Major Accident Hazard Regulations 2015,
 - (ii) the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017, or
 - (ii) any other relevant legislation,
- (c) where an applicant includes the information referred to in sub-paragraph (a) in or attaches it to the application, the applicant must specify which of the requirements of sub-paragraph (1) is addressed by that information and where the information can be located.

Permits: General Conditions

8. A permit for a schedule 20 activity must include—

- (a) such conditions as SEPA considers appropriate to ensure protection of the soil and groundwater including—
 - (i) appropriate requirements for the regular maintenance and surveillance of measures taken to prevent emissions to soil and groundwater,
 - (ii) appropriate requirements for periodic monitoring of soil and groundwater in relation to relevant hazardous substances likely to be found on site and having regard to the possibility of soil and groundwater contamination at the site of the installation,
 - (iii) for the purposes of sub-paragraph (ii), periodic monitoring of—
 - (aa) groundwater must be carried out at least once every 5 years,
 - (bb) soil must be carried out at least once every 10 years,unless SEPA determines that a different frequency of periodic monitoring is appropriate on the basis of a systematic appraisal of the risk of contamination of soil and groundwater,
- (b) conditions to ensure appropriate monitoring and management of waste generated by the installation,
- (c) conditions to ensure suitable emission monitoring requirements specifying measurement methodology, frequency and evaluation procedure,
- (d) conditions relating to conditions other than normal operating conditions such as start-up and shut-down operations, leaks, malfunctions, momentary stoppages and definitive cessation of operations,
- (e) conditions aimed at minimising long-distance or transboundary pollution,
- (f) conditions for assessing compliance with the emission limit values or a reference to the applicable requirements specified elsewhere,
- (g) conditions requiring the authorised person to supply SEPA regularly, and at least annually, with—
 - (i) the results of emission monitoring,
 - (ii) other necessary information, enabling SEPA to verify compliance with the permit conditions,
- (iii) where paragraph 10(6) applies, a summary of the results of emission monitoring which allows a comparison with the emission levels associated with the best available techniques,

- (i) The requirements of this paragraph and paragraph 10 apply to the activities listed in paragraph 46(10) without prejudice to animal welfare legislation.

Permits: emission limit values and environmental quality standards

9.—(1) A permit must, unless sub-paragraph (2) applies, include emission limit values for—

- (a) polluting substances listed in paragraph 2,
- (b) other polluting substances,

likely to be emitted in significant quantities from an installation, having regard to the nature of the pollutant, and the potential for emissions to transfer pollution from one environmental medium to another,

(2) SEPA may supplement or replace an emission limit value by an equivalent parameter or technical measure ensuring an equivalent level of protection for the environment,

(3) An emission limit value set pursuant to sub-paragraph (1) must apply at the point at which the emissions leave the installation with any dilution before that point being disregarded for the purpose of determining the emission limit value,

(4) (a) Where relevant BAT conclusions contain an emission level associated with the best available techniques, an emission limit value must ensure that, under normal operating conditions, emissions do not exceed the emission levels associated with the best available techniques laid down in those BAT conclusions,

- (b) in order to meet the requirements of sub-paragraph (a), emission limit values must—
 - (i) be set at emission levels that do not exceed the emission levels associated with the best available techniques and be expressed for the same or a shorter period of time, and under the same reference conditions, as for the emission levels associated with the best available techniques, or
 - (ii) be set at different emission levels than those in sub-paragraph (i) in terms of values, periods of time or reference conditions.

(5) Where an emission limit value is set at a different emission level, in terms of values, periods of time, and reference conditions in accordance with sub-paragraph (4)(b)(ii), SEPA must—

- (a) assess the results of emissions monitoring at least annually in order to ensure that emissions under normal operating conditions have not exceeded the emission levels associated with the best available techniques during that period, and
- (b) ensure that the results of emissions monitoring are available for the same period of time and reference conditions as for the emission levels associated with the best available techniques,

(6) SEPA may, on application by the authorised person for a variation, or as part of an application for a permit, set a less strict emission limit value than required under sub-paragraph (4) where—

- (a) an assessment shows that achievement of the emission levels associated with the best available techniques as described in any applicable BAT conclusions relevant to the activity as determined by SEPA, would lead to disproportionately higher costs compared to environmental benefits due to—
 - (i) the geographical location or local environmental conditions of the installation, or
 - (ii) the technical characteristics of the installation,
- (b) the emission limit value set—
 - (i) does not exceed the emission limit values set out in schedules 21 or 22 for a particular industrial emissions activity,

- (ii) ensures that no significant pollution is caused and that a high level of protection of the environment as a whole is achieved, and
 - (c) a schedule to the permit specifies the reasons for setting a less strict emission limit value, including the result of the assessment under sub-paragraph (a) and the justification for the conditions imposed,
- (7) SEPA may take into account the effect of a wastewater treatment plant when determining the emission limit values applying in relation to indirect releases of polluting substances into water from an installation provided that—
- (a) doing so does not lead to higher levels of pollution in the environment, and
 - (b) an equivalent level of protection of the environment as a whole is achieved,
- (8) Where relevant BAT conclusions describe best available techniques, but do not contain an emission level associated with the techniques, an emission limit value must—
- (a) be determined by giving special consideration to the matters specified in paragraph 3, and
 - (b) ensure a level of environmental protection equivalent to the techniques described in the BAT conclusions.
- (9) Where permit conditions are based on best available techniques not described in any relevant BAT conclusions and which do not contain an emission level associated with those techniques, an emission limit value must—
- (a) be determined by giving special consideration to the matters specified in paragraph 3,
 - (b) ensure a level of environmental protection equivalent to the best available techniques described in the BAT conclusions.
- (10) In this paragraph—

“equivalent level of protection” means achieving the equivalent percent reduction in concentration of each relevant pollutant when using the downstream wastewater treatment plant, whilst ignoring any dilution from other wastewater streams, that would be achieved through applying the emission limits associated with best available techniques at the point of discharge from the installation,

“less strict emission limit value” means a value that is higher than the value that would otherwise be set if based on best available techniques.

Exception for the testing and use of emerging techniques

10. SEPA may, on application by the authorised person for a variation, or as part of an application for a permit, set less strict conditions than those that would otherwise be required by paragraphs 2, 3(e) and 9(4) for the purpose of the testing and use of an emerging technique provided that—

- (a) the less strict conditions apply for a period of time not to exceed 9 months, and
- (b) after that period of time—
 - (i) use of the technique stops, or
 - (ii) the activity achieves at least the emission levels associated with the best available techniques.

Permits: Surrender applications

11. In considering the impact on the environment resulting from the carrying on, and cessation of a schedule 20 activity in accordance with paragraph 14(1) of Schedule 1, SEPA must consider —

- (a) the condition of the soil and groundwater affected by the activity, including at the site of the installation, and

- (b) any changes from the condition of the site as described in the site report, and where applicable, the baseline report,
- (2) SEPA must not grant an application for surrender for a schedule 20 activity unless—
- (a) the authorised person has taken the necessary measures to address any significant pollution of soil or groundwater by relevant hazardous substances compared to the state established in the baseline report, taking account of the technical feasibility of such measures, and
 - (b) where the contamination of soil and groundwater at the site poses a significant risk to human health or the environment as a result of the regulated activity, the authorised person has taken the necessary actions to remove, control, contain or reduce any [relevant] hazardous substances so that the site ceases to pose such a risk, taking account of its current or approved future use.

Permits: Reviews

12. SEPA must periodically review the conditions of permits for schedule 20 activities, and where necessary, update permit conditions to ensure compliance with this schedule.

- (2) SEPA must, in reviewing permit conditions—
- (a) consider any information resulting from monitoring or inspections,
 - (b) where a review takes place as a result of sub-paragraph (3)(a)—
 - (i) take into account the BAT conclusions prompting the review,
 - (ii) take into account any BAT conclusions for other activities within the installation published since the permit was granted or last reviewed,
 - (iii) reconsider any derogations to emission limit values associated with BAT conclusions,
- (3) Where a review takes place as a result of any of sub-paragraph (4)(b) to (f), SEPA may take into account any relevant BAT conclusions and reconsider any derogations to emission limit values associated with those BAT conclusions,
- (4) In this paragraph, “periodically” means—
- (a) within 4 years of the publication of decision on BAT conclusions relating to the main activity of the installation,
 - (b) when necessary to comply with a new or revised environmental quality standard,
 - (c) when pollution caused by an installation is of such significance that the emission limit values in the permit need to be reviewed or new emission limit values need to be included,
 - (d) when the operational safety of the activities carried out in the installation requires that other techniques be used, or
 - (e) when there are developments in the best available techniques that allow for significant reduction of emissions in a case where the regulated activities are not covered by any of the BAT conclusions.
 - (f) when considered appropriate by SEPA.

Environmental Inspection Plans

13.—(1) SEPA must maintain an environmental inspection plan in respect of schedule 20 activities.

- (2) An environmental inspection plan must—
- (a) include a general assessment of relevant significant environmental issues,
 - (b) state the geographical area and the installations covered by the plan,
 - (c) include a list of the installations covered by the plan,

- (d) provide for a procedure for drawing up programmes for routine environmental inspections under paragraph 14(2),
 - (e) provide a procedure for drawing up programmes for environmental inspections under paragraph 14(3) and (5),
- (3) An environmental inspection plan may be comprised of one or more plans, documents or strategies, and may be prepared at a national, regional or local level.
- (4) SEPA must regularly review, and where appropriate update or replace, an environmental inspection plan.

Environmental Inspections

- 14.**—(1) SEPA must —
- (a) conduct environmental inspections of schedule 20 activities,
 - (b) regularly draw up programmes for environmental inspections based on the environmental inspection plan, including the frequency of site visits for different types of installations,
- (2) the period between site visits for the purpose of an environmental inspection carried out under the environmental inspection plan, and not falling under sub-paragraphs (3) or (5) must be based on a systematic appraisal of risk and must not exceed—
- (a) one year for installations posing the highest risk,
 - (b) three years for installations posing the lowest risk,
- (3) SEPA must conduct an environmental inspection to investigate as soon as possible—
- (a) serious environmental complaints,
 - (b) serious environmental accidents,
 - (c) serious incidents and occurrences of non-compliance,
- (4) SEPA may conduct an environmental inspection—
- (a) before granting a permit,
 - (b) upon the review or variation of a permit,
- (5) An additional site visit must take place within 6 months of any environmental inspection which identifies an important instance of non-compliance with permit conditions,
- (6) SEPA must prepare a report on each site visit describing—
- (a) findings regarding compliance with the permit,
 - (b) conclusions on whether any further action is needed,
- (7) SEPA must provide a copy of a site visit report prepared in accordance with sub-paragraph (6) to the authorised person within 2 months of the site visit taking place,
- (8) SEPA must include the particulars of a site visit report in the register within 4 months of the site visit taking place,
- (9) SEPA must ensure that the authorised person take all necessary actions identified in a site visit report within a reasonable period of time as assessed by SEPA,
- (10) In this paragraph—
- “site visit” includes any measures undertaken to check compliance at a site,
 - “systematic appraisal of risk” means an appraisal by SEPA of the environmental risks of an installation based on—
- (a) the potential and actual impacts on human health and the environment taking into account the levels and types of emissions, the sensitivity of the local environment and the risk of accidents,

- (b) the record of compliance with permit conditions,
- (c) participation by the authorised person in an environmental management and audit scheme.

Proposed Change in Operation

15.—(1) SEPA must ensure that a permit for a schedule 20 activity includes such conditions as it considers appropriate to ensure that the authorised person informs SEPA of a proposed change in operation which may have consequences for the environment in advance of making any such change unless sub-paragraph (2) applies,

(2) This sub-paragraph applies where—

- (a) the authorised person applies for a variation of the permit before a change in operation is made,
- (b) the proposed change is addressed in the application,

(3) A proposed change in operation which is a substantial change cannot be made in the absence of a permit variation.

Public Consultation

16.—(1) Public consultation in accordance with paragraph 8 of Schedule 1 is required in relation to the following—

- (a) an application for a permit for a schedule 20 activity,
- (b) an application to vary a permit for a schedule 20 activity where the application is as a result of a substantial change,
- (c) an application to vary a permit for a high emission activity where the grant of the application would set less strict emission level values under paragraph 9(6),
- (d) a SEPA-initiated variation to a permit for a high emission activity where—
 - (i) the variation would set less strict emission level values under paragraph 9(6), or
 - (ii) the proposed variation is as a result of a review of permit conditions required by paragraph 12(3)(c),

(2) Where public consultation is required under sub-paragraph (1), SEPA must comply with the following requirements in addition to those in paragraph 8 of schedule 1—

- (a) ensure that the following additional information is publicised in such manner as SEPA thinks fit—
 - (i) where not otherwise included in the application itself, a description of the matters included in paragraph 8(1),
 - (ii) where applicable, the fact that a decision by SEPA is subject to an environmental impact assessment,
 - (iii) where applicable, the fact that a decision by SEPA is subject to consultations with neighbouring states as a result of paragraph 19,
 - (iv) where applicable, the details of the proposal for a SEPA-initiated variation under sub-paragraph 1(d),
 - (v) the nature of possible decisions, or where one exists, the draft decision,
- (b) provide copies of the following—
 - (i) the main reports and advice issued to SEPA or, where applicable, issued to the Scottish Ministers and provided to SEPA, at the time when the public concerned were informed about the relevant application or SEPA initiated variation,

- (ii) any relevant information obtained, or conclusion arrived at in relation to an environmental impact assessment relevant to the determination of the application or SEPA initiated variation by virtue of paragraph 13 of schedule 19, which became available subsequent to the publication of the information in sub-paragraph (a).

(3) Sub-paragraphs 8(2), (3), (4), and (5) of Schedule 1 apply to the duties in sub-paragraph (2) as if the reference to sub-paragraph (1)(a) or (b) in sub-paragraph 8(2) of schedule 1 were a reference to sub-paragraph (2).

PART 3

SEPA and Scottish Minister Duties

SEPA: Trans-boundary effects

17.—(1) SEPA must notify the Scottish Ministers of any application or a proposal for a SEPA-initiated variation of a permit for a schedule 20 activity which if granted or put into effect is likely to have significant negative effects on the environment of a neighbouring state,

(2) For the purposes of this paragraph and paragraph 18, a “neighbouring state” includes—

- (a) a member state of the European Union,
- (b) Iceland, Liechtenstein and Norway.

Scottish Ministers’ Duties: Trans-boundary effects

18.—(1) This paragraph applies where—

- (a) The Scottish Ministers are aware that the grant of an application or a proposal for a SEPA initiated variation of a permit for a schedule 20 activity is likely to have significant negative effects on the environment of a neighbouring state, or
- (b) a neighbouring state requests information about an application or a proposal for a SEPA-initiated variation.

(2) The Scottish Ministers must, as soon as reasonably practicable—

- (a) send the particulars of the application or SEPA initiated variation to that neighbouring state,
- (b) inform that neighbouring state of the relevant information,
- (c) consult the authorities of the neighbouring state,
- (d) allow such reasonable period as may have been agreed with the neighbouring state to ensure that the state and the public concerned are given an opportunity to forward their representations on the information supplied in accordance with heads (a) and (b),
- (e) notify SEPA and the authorised person that they have complied with the obligations in this sub-paragraph.

(3) Where SEPA receives a notice under sub-paragraph (2)(e), it must not determine the application or make the SEPA-initiated variation until the Scottish Ministers have—

- (a) notified SEPA that the consultation described in sub-paragraph (2)(c) has been completed,
- (c) notified SEPA that the period in sub-paragraph (2)(d) has been completed,
- (d) sent SEPA any representations made by the neighbouring state,

(4) In this paragraph “relevant information” includes the information made available to the public in accordance with paragraph 16 and paragraph 8 of schedule 1.

Scottish Ministers' Duties: Access to Justice

19.—(1) Any non-governmental organisation promoting environmental protection and meeting any necessary requirements under the law is, in relation to any decision subject to public consultation under paragraph 8 of schedule 1 as a result of the application of paragraph 16 of this schedule, for the purposes of seeking review of that decision deemed to have sufficient interest in the subject matter of a petition for judicial review as required by section 27B(2)(a) of the Court of Session Act 1988(a),

(2) The Scottish Ministers must ensure that information is made available to the public in relation to appeals under regulation 55 to the Scottish Ministers and judicial review proceedings in the Court of Session.

PART 4

Activities

CHAPTER 1

Energy industries

- 1.** Combustion of fuels in installations with a total rated thermal input of 50 MW or more.
- 2.** Refining of mineral oil and gas.
- 3.** Production of coke.
- 4.** Gasification or liquefaction of—
 - (a) coal,
 - (b) other fuels in installations with a total rated thermal input of 20 MW or more.

CHAPTER 2

Production and processing of metals

- 5.** Metal ore (including sulphide ore) roasting or sintering.
- 6.** Production of pig iron or steel (primary or secondary fusion) including continuous casting, with a capacity exceeding 2.5 tonnes per hour.
- 7.** Processing of ferrous metals—
 - (a) operation of hot-rolling mills with a capacity exceeding 20 tonnes of crude steel per hour,
 - (b) operation of smitheries with hammers the energy of which exceeds 50 kilojoule per hammer, where the calorific power used exceeds 20 MW,
 - (c) application of protective fused metal coats with an input exceeding 2 tonnes of crude steel per hour.
- 8.** Operation of ferrous metal foundries with a production capacity exceeding 20 tonnes per day.
- 9.** Processing of non-ferrous metals—
 - (a) production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes

(a) c. 36. Section 27B was added by the Courts Reform (Scotland) Act 2014 asp 18 Pt 3 c. 2 s. 89.

- (b) melting, including the alloyage, of non-ferrous metals, including recovered products and operation of non-ferrous metal foundries, with a melting capacity exceeding 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals.

10. Surface treatment of metals or plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats exceeds 30 m³.

CHAPTER 3

Mineral industry

11. Production of cement, lime and magnesium oxide—

- (a) production of cement clinker in rotary kilns with a production capacity exceeding 500 tonnes per day or in other kilns with a production capacity exceeding 50 tonnes per day,
- (b) production of lime in kilns with a production capacity exceeding 50 tonnes per day,
- (c) production of magnesium oxide in kilns with a production capacity exceeding 50 tonnes per day.

12. Production of asbestos or the manufacture of asbestos-based products

13. Manufacture of glass including glass fibre with a melting capacity exceeding 20 tonnes per day

14. Melting mineral substances including the production of mineral fibres with a melting capacity exceeding 20 tonnes per day.

15. Manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain with a production capacity exceeding 75 tonnes per day and/or with a kiln capacity exceeding 4 m³ and with a setting density per kiln exceeding 300 kg/m³.

CHAPTER 4

Chemical industry

16. Production of organic chemicals—

- (a) simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic),
- (b) oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters and mixtures of esters, acetates, ethers, peroxides and epoxy resins,
- (c) sulphurous hydrocarbons,
- (d) nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate compounds, nitriles, cyanates, isocyanates,
- (e) phosphorus-containing hydrocarbons,
- (f) halogenic hydrocarbons,
- (g) organometallic compounds,
- (h) plastic materials (polymers, synthetic fibres and cellulose-based fibres),
- (i) synthetic rubbers,
- (j) dyes and pigments,
- (k) surface-active agents and surfactants.

17. Production of inorganic chemicals—

- (a) gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides, sulphur compounds, nitrogen oxides, hydrogen, sulphur dioxide, carbonyl chloride,
- (b) acids, such as chromic acid, hydrofluoric acid, phosphoric acid, nitric acid, hydrochloric acid, sulphuric acid, oleum, sulphurous acids,
- (c) bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide,
- (d) salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate,
- (e) non-metals, metal oxides or other inorganic compounds such as calcium carbide, silicon, silicon carbide,

18. Production of phosphorous-, nitrogen- or potassium-based fertilisers (simple or compound fertilisers).

19. Production of plant protection products or of biocides.

20. Production of pharmaceutical products including intermediates.

21. Production of explosives.

For the purpose of this section, “production” means the production on an industrial scale by chemical or biological processing of substances or groups of substances listed in paragraphs 16 to 21.

CHAPTER 5

Waste management

22. Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities—

- (a) biological treatment,
- (b) physico-chemical treatment,
- (c) blending or mixing prior to submission to any of the other activities listed in this paragraph and paragraph 41,
- (d) repackaging prior to submission to any of the other activities listed in this paragraph and paragraph 41, ,
- (e) solvent reclamation/regeneration,
- (f) recycling or reclamation of inorganic materials other than metals or metal compounds,
- (g) regeneration of acids or bases,
- (h) recovery of components used for pollution abatement,
- (i) recovery of components from catalysts,
- (j) oil re-refining or other reuses of oil,
- (k) surface impoundment.

23. Disposal or recovery of waste in waste incineration plants or in waste co-incineration plants—

- (a) for non-hazardous waste with a capacity exceeding 3 tonnes per hour,
- (b) for hazardous waste with a capacity exceeding 10 tonnes per day.

24.—(1) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving one or more of the following activities, and excluding activities covered by

Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment^(a)—

- (a) biological treatment,
- (b) physico-chemical treatment,
- (c) pre-treatment of waste for incineration or co-incineration,
- (d) treatment of slags and ashes,
- (e) treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components.

(2) Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, and excluding activities covered by Directive 91/271/EEC—

- (a) biological treatment,
- (b) pre-treatment of waste for incineration or co-incineration,
- (c) treatment of slags and ashes,
- (d) treatment in shredders of metal waste, including waste electrical and electronic equipment and end-of-life vehicles and their components.

(3) When the only waste treatment activity carried out is anaerobic digestion, the capacity threshold for this activity must be 100 tonnes per day.

25. Landfills receiving more than 10 tonnes of waste per day or with a total capacity exceeding 25 000 tonnes, excluding landfills of inert waste.

26. Temporary storage of hazardous waste not covered under paragraph 43 pending any of the activities in paragraphs 40, 41, 43, or 45 with a total capacity exceeding 50 tonnes, excluding temporary storage, pending collection, on the site where the waste is generated.

27. Underground storage of hazardous waste with a total capacity exceeding 50 tonnes.

CHAPTER 6

Other activities

28. Production in industrial installations of—

- (a) pulp from timber or other fibrous materials,
- (b) paper or cardboard with a production capacity exceeding 20 tonnes per day,
- (c) one or more of the following wood-based panels: oriented strand board, particleboard or fibreboard with a production capacity exceeding 600 m³ per day.

(2) Pre-treatment (operations such as washing, bleaching, mercerisation) or dyeing of textile fibres or textiles where the treatment capacity exceeds 10 tonnes per day.

(3) Tanning of hides and skins where the treatment capacity exceeds 12 tonnes of finished products per day.

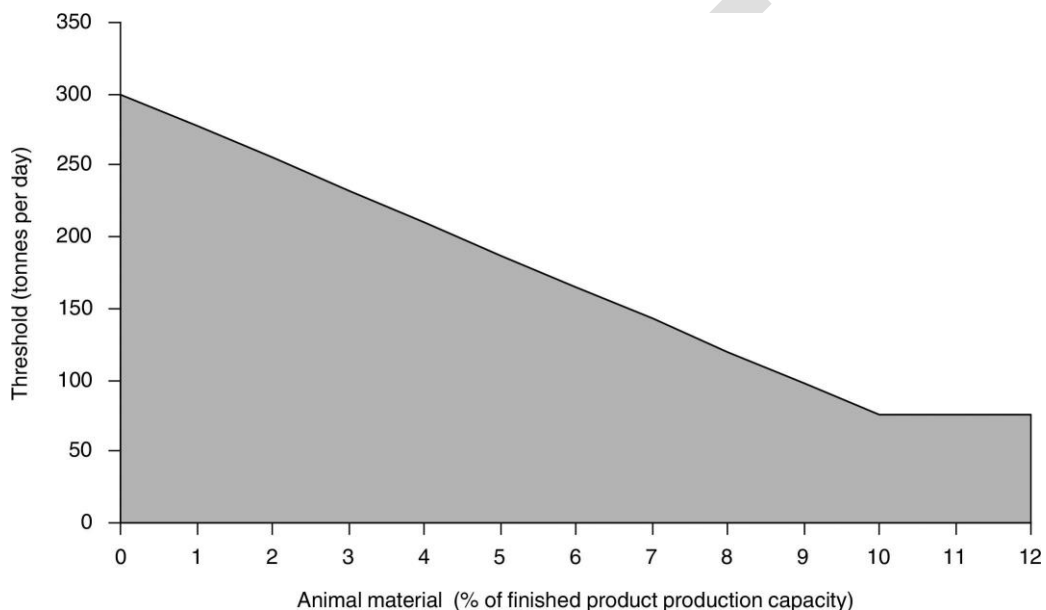
(4) Operating slaughterhouses with a carcass production capacity greater than 50 tonnes per day.

(5) Treatment and processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food or feed from—

- (a) only animal raw materials (other than exclusively milk) with a finished product production capacity greater than 75 tonnes per day,

^(a) OJ L 135, 30.5.1991, p. 40 as amended by Directive 98/15/EC (OJ L 67, 7.3.1998, p. 29), Regulation 1882/2003 (OJ L 284, 31.10.2003, p. 1), Regulation 1137/2008 (OJ L 311, 21.11.2008, p. 1) and Directive 2013/64 (OJ L 353, 28.12.2013, p. 8).

- (b) only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day or 600 tonnes per day where the installation operates for a period of no more than 90 consecutive days in any year,
- (c) (i) animal and vegetable raw materials, both in combined and separate products, with a finished product production capacity in tonnes per day greater than—
 - (aa) 75 if A is equal to 10 or more,
 - (bb) $[300 - (22.5 \times A)]$ in any other case,
 where ‘A’ is the portion of animal material (in percent of weight) of the finished product production capacity.
 - (ii) In the calculations in sub-paragraphs (aa) and (bb), packaging is not to be included in the final weight of the product.
 - (iii) this sub-paragraph does not apply where the raw material is milk only.



- (6) Treatment and processing of milk only, the quantity of milk received being greater than 200 tonnes per day (average value on an annual basis).
- (7) Disposal or recycling of animal carcasses or animal waste with a treatment capacity exceeding 10 tonnes per day.
- (8) Intensive rearing of poultry or pigs—
 - (a) with more than 40 000 places for poultry,
 - (b) with more than 2 000 places for production pigs (over 30 kg),
 - (c) with more than 750 places for sows.
- (9) Surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, with an organic solvent consumption capacity of more than 150 kg per hour or more than 200 tonnes per year.
- (10) Production of carbon (hard-burnt coal) or electrographite by means of incineration or graphitisation.
- (11) Capture of CO₂ streams from industrial emissions activities for the purposes of geological storage pursuant to Directive 2009/31/EC(a).

(a) Directive 2009/31/EC on the geological storage of carbon dioxide, OJ L 140, 5.6.2009, p. 114 as amended by Directive 2011/92/EU (OK L 26, 28.1.2012, p. 1), Decision 2018/853 (OJ L 150, 14.6.2018, p. 155) and Regulation 2018/1999 (OJ L 328, 21.12.2018, p.1).

(12) Preservation of wood and wood products with chemicals with a production capacity exceeding 75 m³ per day other than exclusively treating against sapstain,

(13) Independently operated treatment of wastewater not covered by Directive 91/271/EEC and discharged by an installation covered by this schedule,

(14) In this paragraph—

“animal” includes a bird or a fish,

“food” includes drink, articles and substances of no nutritional value which are used for human consumption, and articles and substances used as ingredients in the preparation of food,

“wood” includes any product consisting wholly or mainly of wood.”

DRAFT

SCHEDULE 12
NEW SCHEDULE 21 TO BE ADDED INTO THE 2018
REGULATIONS

Regulation 8(2)

“SCHEDULE 21
OPERATING OF A LARGE COMBUSTION PLANT

Regulation 6(3)

PART 1
Scope and Interpretation

Scope and interpretation: operating a large combustion plant

- 1.—(1) This Schedule applies to operating a large combustion plant,
(2) sub-paragraph (3) applies for the interpretation of—
- (a) this schedule,
 - (b) the definition of a large combustion plant,
- (3) “large combustion plant” means a combustion plant where the total rated thermal input of which is equal to or greater than 50 MW, irrespective of the type of fuel used, but does not include—
- (a) plants in which the products of combustion are used for the direct heating, drying, or any other treatment of objects or materials,
 - (b) post-combustion plants designed to purify the waste gases by combustion which are not operated as independent combustion plants,
 - (c) facilities for the regeneration of catalytic cracking catalysts,
 - (d) facilities for the conversion of hydrogen sulphide into sulphur,
 - (e) reactors used in the chemical industry,
 - (f) coke battery furnaces,
 - (g) cowpers,
 - (h) any technical apparatus used in the propulsion of a vehicle, ship or aircraft,
 - (i) gas turbines and gas engines used on offshore platforms,
 - (j) plants which use any solid or liquid waste as a fuel other than waste that is biomass.

Interpretation: general

2. In this schedule—

“determinative fuel” means the fuel which, amongst all fuels used in a multi-fuel firing combustion plant using the distillation and conversion residues from the refining of crude oil for own consumption alone or with other fuels, has the highest emission limit value as set out in Part 3 of Schedule 21, or, in the case of several fuels having the same emission limit value, the fuel having the highest thermal input amongst those fuels,

“diesel engine” means an internal combustion engine which operates according to the diesel cycle and uses compression ignition to burn fuel,

“gas engine” means an internal combustion engine which operates according to the Otto cycle and uses spark ignition or, in the case of dual fuel engines, compression ignition to burn fuel,

“gas turbine” means any rotating machine which converts thermal energy into mechanical work, consisting mainly of a compressor, a thermal device in which fuel is oxidised in order to heat the working fluid, and a turbine,

“indigenous solid fuel” means a naturally occurring solid fuel fired in a combustion plant specifically designed for that fuel and extracted locally,

“multi-fuel firing combustion plant” means any combustion plant which may be fired simultaneously or alternately by two or more types of fuel,

“operating hours” means the time, expressed in hours, during which a combustion plant, in whole or in part, is operating and discharging emissions into the air, excluding start-up and shut-down periods,

“rate of desulphurisation” means the ratio over a given period of time of the quantity of sulphur which is not emitted into air by a combustion plant to the quantity of sulphur contained in the solid fuel which is introduced into the combustion plant facilities and which is used in the plant over the same period of time,

“stack” means a structure containing one or more flues providing a passage for waste gases in order to discharge them into the air.

Aggregation Rules

3.—(1) Where the waste gases of two or more separate combustion plants are discharged through a common stack—

- (a) the combination formed by such plants is to be considered a single combustion plant, and
- (b) their capacities added together for the purpose of calculating the total rated thermal input.

(2) Where two or more separate combustion plants—

- (a) have been granted an environmental permit for the first time on or after 1 July 1987 or in relation to which a complete application for a permit has been submitted on or after that date, and
- (b) are installed in such a way that taking technical and economic factors into account, their waste gases could, in the judgement of SEPA, be discharged through a common stack—
 - (i) the combination formed by such plants is to be considered as a single combustion plant, and
 - (ii) their capacities added for the purpose of calculating the total rated thermal input.

(3) For the purpose of calculating the total rated thermal input of a combination of combustion plants referred to in sub-paragraphs (1) and (2), individual combustion plants with a rated thermal input below 15 MW are not to be considered.

PART 2

Amendments to Common Framework

Authorisations: permits

4.—(1) Operating a large combustion plant may only be authorised by permit,

(2) a permit for operating a large combustion plant must not be granted unless the permit gives effect to the requirements of this schedule.

Permits: Discharge of Waste Gases

5. Waste gases from large combustion plants must—

- (a) be discharged in a controlled way by means of a stack, containing one or more flues, and
- (b) the height of the stack must be calculated in such a way as to safeguard human health and the environment.

Permits: Emission Limit Values

6.—(1) All permits for operating a large combustion plant which has been granted before 7 January 2013, or for which a complete application was submitted before that date, provided that such plants were in operation not later than 7 January 2014 must include conditions ensuring that emissions into the air do not exceed the emission limit values set out in chapter 1 of part 3,

(2) All permits for operating a large combustion plant other than those described in sub-paragraph (1) must include conditions ensuring that emissions into the air from these plants do not exceed the emission limit values set out in Chapter 2 of Part 3,

(3) Emission limit values and minimum rates of desulphurisation apply to the emissions of each common stack in relation to the total rated thermal input of the entire large combustion plant,

(4) Where Part 3 provides that emission limit values may be applied for a part of a large combustion plant with a limited number of operating hours, those limit values apply to the emissions of that part of the plant, but must be set in relation to the total rated thermal input of the entire combustion plant,

(5) Where a large combustion plant is extended, the emission limit values set out in Chapter 2 of Part 3—

- (a) apply to the extended part of the plant affected by the change,
- (b) must be set in relation to the total rated thermal input of the entire combustion plant.

(6) Sub-paragraph (7) applies where there is a change to a large combustion plant that —

- (a) may have consequences for the environment, and
- (b) affects a part of the plant with a rated thermal input of 50 MW or more

(7) Where this sub-paragraph applies, the emission limit values as set out in Chapter 2 of Part 3 apply to the part of the plant referred to in sub-paragraph (5) which has changed in relation to the total rated thermal input of the entire combustion plant.

Emission limit value exemptions: general

7. The emission limit values set out in Chapters 1 and 2 of Part 3 do not apply to the following large combustion plants—

- (1) diesel engines,
- (2) recovery boilers within installations for the production of pulp.

Emission limit value exemptions: fuel shortages and interruptions

8.—(1) SEPA, on application of the authorised person, may grant an exemption for a maximum of 6 months from the obligation to comply with the emission limit value for sulphur dioxide set out in Chapters 1 and 2 of Part 3 where—

- (a) a large combustion plant normally uses low-sulphur fuel, and
 - (b) the authorised person is unable to comply with those limit values because of an interruption in the supply of low- sulphur fuel resulting from a serious shortage.
- (2) SEPA may, on application of the authorised person, grant an exemption for a maximum of 10 days, unless there is an overriding need to maintain energy supplies, from the obligation to comply with emission limit values set out in Chapters 1 and 2 of Part 3 where—
- (a) a large combustion plant normally uses only gaseous fuel,
 - (b) the authorised person has to resort exceptionally to the use of other fuels because of a sudden interruption in the supply of gas, and
 - (c) for this reason, would need to be equipped with a waste gas purification facility.
- (3) An application for an exemption—
- (a) under sub-paragraph (1), must be made to SEPA in writing,
 - (b) under sub-paragraph (2)—
 - (i) must be made immediately and in advance of the need to use other fuels,
 - (ii) may be made in writing, or by other means,
 - (c) will be treated as application for a variation under regulation 63 of these Regulations,
 - (d) will be determined by SEPA within the period as considered appropriate by SEPA in the circumstances,
- (4) SEPA will notify the authorised person in writing of an exemption granted under sub-paragraph (3) where practicable to do so,
- (5) SEPA must immediately inform the Scottish Ministers of any exemption granted under sub-paragraphs (1) or (2).

Emission limit value exemptions: desulphurisation for combustion plants firing indigenous solid fuel

9. SEPA may apply the minimum rates of desulphurisation set out in Chapter 5 of Part 3 where the circumstances in sub-paragraphs (1) or (2) apply,

- (1) this sub-paragraph applies to a large combustion plant that fires indigenous solid fuel, where—
 - (a) due to the characteristics of that fuel, the plant cannot comply with the emission limit value for sulphur dioxide required by paragraph 6,
 - (b) the authorised person has submitted a technical report to SEPA,
 - (c) SEPA has validated the technical report, and
 - (d) the minimum rates of desulphurisation are applied as a monthly average limit value.
- (2) this sub-paragraph applies to a large combustion plant that fires indigenous solid fuel which co-incinerates waste, where—
 - (a) due to the characteristics of that fuel, the plant cannot comply with the C_{proc} values for sulphur dioxide set out in paragraph 23(4) of schedule 22,
 - (b) the minimum rates of desulphurisation are applied as a monthly average limit value.
- (3) Where the minimum rate of desulphurisation is applied in the circumstances described in sub-paragraph (2), C_{waste} as referred to in paragraph 21(3) of schedule 22 is equal to 0 mg/Nm³

Carbon Capture and Storage

10.—(1) SEPA must assess whether the following conditions are met for all large combustion plants with a rated electrical output of 300 megawatts or more, for which the first permit was granted after 25 June 2009—

- (a) suitable storage sites are available,
- (b) transport facilities are technically and economically feasible, and
- (c) it is technically and economically feasible to retrofit for carbon dioxide capture,

(2) in assessing whether the conditions in sub-paragraph (1) are met, SEPA must also take into account other information, and in particular information concerning the protection of the environment and human health,

(3) where the conditions in sub-paragraph (1) are met, SEPA must include such conditions as it considers appropriate to ensure that suitable space on the authorised place is set aside for the equipment necessary to capture and compress carbon dioxide.

(4) in this paragraph, “first permit” means a permit under either the Pollution Prevention and Control (Scotland) Regulations 2012(a) or the Pollution Prevention and Control (Scotland) Regulations 2000(b).

Abatement Equipment Malfunction or Breakdown

11.—(1) SEPA must ensure permits for operating a large combustion plant include such conditions as it considers appropriate to give effect to sub-paragraphs (a) to (c)—

- (a) in the event that normal operation is not restored within 24 hours of a break-down, the authorised person must—
 - (i) reduce or stop operations, or
 - (ii) operate the plant using low polluting fuels
- (b) the authorised person must notify SEPA within 48 hours of the malfunction or breakdown of abatement equipment,
- (c) the cumulative period of unabated operation must not exceed 120 hours in any 12-month period.

(2) SEPA may on application by the authorised person provide for an exemption to the time periods in sub-paragraphs (1)(a) and (1)(c) where—

- (a) there is an overriding need to maintain energy supplies, or
- (b) the combustion plant with the breakdown would be replaced for a limited period by another plant which would cause an overall increase in emissions.

(3) An application for an exemption—

- (a) under sub-paragraph (1), must be made to SEPA in writing,
- (b) under sub-paragraph (2)—
 - (i) must be made immediately and in advance of the need to use other fuels,
 - (ii) may be made in writing, or by other means,
- (c) will be treated as application for a variation under regulation 63 of these Regulations,
- (d) will be determined by SEPA within the period as considered appropriate by SEPA in the circumstances,

(4) SEPA will notify the authorised person in writing of an exemption granted under sub-paragraph (3) where practicable to do so.

(a) S.S.I. 2012/360.

(b) S.S.I. 2000/323.

Emissions Monitoring and compliance

12.—(1) SEPA must ensure that a permit for operating a large combustion plant includes such conditions as it considers appropriate to ensure—

- (a) monitoring of air polluting substances is carried out in accordance with Chapter 3 of Part 3,
- (b) installation and functioning of the automated monitoring equipment is subject to control and annual surveillance tests as set out in Chapter 3 of Part 3,
- (c) that the location of the sampling or measurement points to be used for emissions monitoring is as designated by SEPA,
- (d) the recording and reporting of monitoring results to SEPA,
- (e) where any of paragraphs 20(2), 21(4), 28(2), 29(3) applies, the recording of the used operating hours,
- (f) where more than 10 days over a year are invalidated as result of paragraph 37(2), adequate measures are taken to improve the reliability of the automated measuring system,
- (g) where paragraph 38 applies, that SEPA is informed of significant changes in the type of fuel used.

(2) In assessing compliance with emission limit values SEPA must have regard to the conditions set out in Chapter 4 of Part 3.

Multi-fuel Firing Combustion Plants

13.—(1) SEPA must, except where sub-paragraph (2) applies, set the emissions limit value for a multi-fuel large combustion plant involving the simultaneous use of two or more fuels by—

- (a) taking the emission limit value for each individual fuel and pollutant corresponding to the total rated thermal input of the entire combustion plant as set out in Chapters 1 and 2 of Part 3,
- (b) determining fuel-weighted emission limit values, by multiplying the individual emission limit value in head (a) by the thermal input delivered by each fuel, and dividing the total by the total thermal inputs delivered by all fuels,
- (c) aggregating the fuel-weighted emission limit values.

(2) This sub-paragraph applies to a multi-fuel large combustion plant covered by paragraph 6(1), which uses the distillation and conversion residues from the refining of crude oil for own consumption, alone or with other fuels.

(3) Where sub-paragraph (2) applies, the following emission limit values may be set rather than the values set according to sub-paragraph (1)—

- (a) where, during the operation of the combustion plant, the proportion contributed by the determinative fuel to the sum of the thermal inputs delivered by all fuels is 50 % or more, the emission limit value set in chapter 1 of part 3 for the determinative fuel,
- (b) where the proportion contributed by the determinative fuel to the sum of the thermal inputs delivered by all fuels is less than 50 %, the emission limit value is determined by—
 - (i) taking the emission limit values set out in Chapter 1 of Part 3 for each of the fuels used, corresponding to the total rated thermal input of the combustion plant,
 - (ii) calculating the emission limit value of the determinative fuel by multiplying the emission limit value, determined for that fuel according to sub-head (i), by

a factor of two, and subtracting from this product the emission limit value of the fuel used with the lowest emission limit value as set out in Chapter 1 of Part 3, corresponding to the total rated thermal input of the combustion plant,

- (iii) determining the fuel-weighted emission limit value for each fuel used by multiplying the emission limit value determined under sub-heads (i) and (ii) by the thermal input of the fuel concerned and by dividing the total by the total thermal inputs delivered by all fuels,

- (iv) aggregating the fuel-weighted emission limit values.

(4) Where a multi-fuel firing large combustion plant to which paragraph 6(1) applies, uses the distillation and conversion residues from the refining of crude-oil for its own consumption, alone or with other fuels, the average emission limit values for sulphur dioxide set out in Chapter 6 of Part 3 may be applied instead of the emission limit values set according to sub- paragraphs 1 or 3 of this paragraph.

Monitoring and Reporting

14. SEPA must ensure that a permit for operating a large combustion plant includes such conditions as it considers appropriate to ensure that the following information is reported to SEPA—

- (a) the total rated thermal input (MW) of the combustion plant,
- (b) the type of combustion plant—
 - (i) boiler,
 - (ii) gas turbine,
 - (iii) gas engine,
 - (iv) diesel engine,
 - (v) other, with specification of the type,
- (c) the date of the start-up of operation of the combustion plant,
- (d) the total annual emissions (tonnes per year) of sulphur dioxide, nitrogen oxides and dust (as total suspended particles),
- (e) the number of operating hours of the combustion plant,
- (f) the total annual amount of energy input, related to the net calorific value (TJ per year), broken down in terms of the following categories of fuel—
 - (i) coal,
 - (ii) lignite,
 - (iii) biomass,
 - (iv) peat,
 - (v) other solid fuels, with specification of type,
 - (vi) liquid fuels,
 - (vii) natural gas,
 - (viii) other gases, with specification of type,

Start-up and Shut-down Periods

15. The determination of start-up and shut-down periods for large combustion plants is to be in accordance with Commission Implementing Decision of 7 May 2012 concerning the

determination of start-up and shut-down periods for the purposes of the Industrial Emissions Directive(a).

PART 3

Technical provisions relating to combustion plants

CHAPTER 1

Emission limit values for combustion plants referred to in paragraph 6(1)

16. All emission limit values are to be calculated—

- (a) at a temperature of 273.15 K,
- (b) a pressure of 101.3 kPa after correction for the water vapour content of the waste gases, and
- (c) at a standardised O₂ content of —
 - (i) 6 % for solid fuels,
 - (ii) 3 % for combustion plants, other than gas turbines and gas engines using liquid and gaseous fuels,
 - (iii) 15 % for gas turbines and gas engines.

17.—(1) Emission limit values (mg/Nm³) for SO₂ for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines where the circumstances in sub-paragraphs (2) to (4) do not apply are as stated in Table 1—

Table 1

<i>Total rated thermal input (MW)</i>	<i>Coal and lignite and other solid fuels</i>	<i>Biomass</i>	<i>Peat</i>	<i>Liquid Fuels</i>
50-100	400	200	300	350
100-300	250	200	300	250
>300	200	200	200	200

(2) Combustion plants, using solid fuels which were granted a permit before 27 November 2002 or where a complete application for a permit was submitted before that date, provided that the plant was put into operation no later than 27 November 2003, and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, are subject to an emission limit value for SO₂ of 800 mg/Nm³.

(3) Combustion plants using liquid fuels, which were granted a permit before 27 November 2002 or where a complete application for a permit was submitted before that date, provided that the plant was put into operation no later than 27 November 2003, and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, are subject to an emission limit value for SO₂ of 850 mg/Nm³ in case of plants with a total rated thermal input not exceeding 300 MW and of 400 mg/Nm³ in case of plants with a total rated thermal input greater than 300 MW.

(4) A part of a combustion plant discharging its waste gases through one or more separate flues within a common stack, and which does not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, may be subject to the emission limit

(a) EUD 2012/249 as amended by S.I. 2018/1407.

values set out in sub-paragraphs (2) and (3) in relation to the total rated thermal input of the entire combustion plant.

(5) Where sub-paragraph (4) applies, the emissions through each of those flues must be monitored separately.

18.—(1) Emission limit values (mg/Nm³) for SO₂ for combustion plants using gaseous fuels with the exception of gas turbines and gas engines are, unless the circumstances in sub-paragraph (2) apply, as stated in Table 2—

Table 2

In general	35
Liquefied gas	5
Low calorific gases from coke oven	400
Low calorific gases from blast furnace	200

(2) Combustion plants, firing low calorific gases from gasification of refinery residues, which were granted a permit before 27 November 2002 or where a complete application for a permit was submitted before that date, provided that the plant was put into operation no later than 27 November 2003, are subject to an emission limit value for SO₂ of 800 mg/Nm³.

19.—(1) Emission limit values (mg/Nm³) for NO_x for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines are, unless the circumstances in sub-paragraphs (2) to (6) are as stated in Table 3—

Table 3

<i>Total rated thermal input (MW)</i>	<i>Coal and lignite and other solid fuels</i>	<i>Biomass and Peat</i>	<i>Liquid fuels</i>
500-100	300 450 in case of pulverised lignite combustion	300	450
100-300	200	250	200 ⁽¹⁾
>300	200	200	150 ⁽¹⁾

⁽¹⁾ The emission limit value is 450 mg/Nm³ for the firing of distillation and conversion residues from the refining of crude-oil for own consumption in combustion plants with a total rated thermal input not exceeding 500 MW which were granted a permit before 27 November 2002 or where a complete application for a permit was submitted before that date, provided that the plant was put into operation no later than 27 November 2003.

(2) Combustion plants in chemical installations using liquid production residues as non-commercial fuel for own consumption with a total rated thermal input not exceeding 500 MW which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003, are subject to an emission limit value for NO_x of 450 mg/Nm³.

(3) Combustion plants using solid or liquid fuels with a total rated thermal input not exceeding 500 MW which were granted a permit before 27 November 2002 or where a complete application for a permit was submitted before that date, provided that the plant was put into operation no later than 27 November 2003, and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, are subject to an emission limit value for NO_x of 450 mg/Nm³.

(4) Combustion plants using solid fuels with a total rated thermal input greater than 500 MW, which were granted a permit before 1 July 1987 and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, are subject to an emission limit value for NO_x of 450 mg/Nm³.

(5) Combustion plants using liquid fuels, with a total rated thermal input greater than 500 MW which were granted a permit before 27 November 2002 or where a complete application for a permit was submitted before that date, provided that the plant was put into operation no later than 27 November 2003, and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, are subject to an emission limit value for NO_x of 400 mg/Nm³.

(6) A part of a combustion plant discharging its waste gases through one or more separate flues within a common stack, and which does not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, may be subject to the emission limit values set out in sub-paragraphs (3) to (5) in relation to the total rated thermal input of the entire combustion plant.

(7) Where sub-paragraph (6) applies, the emissions through each of those flues must be monitored separately.

20.—(1) Gas turbines (including combined cycle gas turbines (CCGT)) using light and middle distillates as liquid fuels are subject to an emission limit value for NO_x of 90 mg/Nm³ and for CO of 100 mg/Nm³ unless the circumstances in sub-paragraph (2) apply,

(2) Gas turbines for emergency use that operate less than 500 operating hours per year are not covered by the emission limit values set out in this paragraph.

21.—(1) The emission limit values (mg/Nm³) for NO_x and CO for gas fired combustion plants, unless the circumstances in sub-paragraphs (2) to (4) apply are as set out in Table 4—

Table 4

	NO _x	CO
Combustion plants firing natural gas with the exception of gas turbines and gas engines	100	100
Combustion plants firing blast furnace gas, coke oven gas or low calorific gases from gasification of refinery residues, with the exception of gas turbines and gas engines	200 (4)	—
Combustion plants firing other gases, with the exception of gas turbines and gas engines	200 (4)	—
Gas turbines (including CCGT), using natural gas (1) as fuel	50 (2)(3)	100
Gas turbines (including CCGT), using other gases as fuel	120	—
Gas engines	100	100

(1) Natural gas is naturally occurring methane with not more than 20 % (by volume) of inerts and other constituents.

(2) 75 mg/Nm³ in the following cases, where the efficiency of the gas turbine is determined at ISO baseload conditions:

(i) gas turbines, used in combined heat and power systems having an overall efficiency greater than 75 %

(ii) gas turbines used in combined cycle plants having an annual average overall electrical efficiency greater than 55 %

(iii) gas turbines for mechanical drives.

(3) For single cycle gas turbines not falling into any of the categories mentioned under note (2) but having an efficiency greater than 35 % – determined at ISO base load conditions – the emission limit value for NO_x is $50x\eta/35$ where η is the gas turbine efficiency at ISO base load conditions expressed as a percentage.

(4) 300 mg/Nm³ for such combustion plants with a total rated thermal input not exceeding 500 MW which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003.

(2) For gas turbines (including CCGT), the NO_x and CO emission limit values set out in the table contained in this paragraph apply only above 70 % load,

(3) For gas turbines (including CCGT) which were granted a permit before 27 November 2002 or where a complete application for a permit was submitted before that date, provided that the plant was put into operation no later than 27 November 2003, and which do not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, the emission limit value for NO_x is 150 mg/Nm³ when firing natural gas and 200 mg/Nm³ when firing other gases or liquid fuels.

(4) A part of a combustion plant discharging its waste gases through one or more separate flues within a common stack, and which does not operate more than 1 500 operating hours per year as a rolling average over a period of 5 years, may be subject to the emission limit values set out in sub-paragraphs (2) and (3) in relation to the total rated thermal input of the entire combustion plant.

(5) Where sub-paragraph (4) applies, the emissions through each of those flues must be monitored separately.

(6) Gas turbines and gas engines for emergency use that operate less than 500 operating hours per year are not covered by the emission limit values set out in this paragraph.

22. Emission limit values (mg/Nm³) for dust for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines are as set out in Table 5—

Table 5

Total rated thermal input (MW)	Coal and lignite and other solid fuels	Biomass and peat	Liquid fuels (1)
50-100	30	30	30
100-300	25	20	25
>300	20	20	20

(1) The emission limit value is 50 mg/Nm³ for the firing of distillation and conversion residues from the refining of crude oil for own consumption in combustion plants which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before that date, provided that the plant was put into operation no later than 27 November 2003.

23. Emission limit values (mg/Nm³) for dust for combustion plants using gaseous fuels with the exception of gas turbines and gas engines are as set out in table 6—

Table 6

In general	5
Blast furnace gas	10
Gases produced by the steel industry which can be used elsewhere	30

CHAPTER 2

Emission limit values for combustion plants referred to in paragraphs 7(2) and 7(3)

24.—(1) All emission limit values are to be calculated—

- (a) at a temperature of 273.15 K,
- (b) a pressure of 101.3 kPa after correction for the water vapour content of the waste gases, and
- (c) at a standardised O₂ content of—
 - (i) 6 % for solid fuels,
 - (ii) 3 % for combustion plants other than gas turbines and gas engines using liquid and gaseous fuels,
 - (iii) 15 % for gas turbines and gas engines.

(2) In case of combined cycle gas turbines with supplementary firing, the standardised O₂ content may be defined by SEPA, taking into account the specific characteristics of the installation concerned.

25. Emission limit values (mg/Nm³) for SO₂ for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines are as set out in Table 7—

Table 7

Total thermal (MW)	rated input	Coal and lignite and other solid fuels	Biomass	Peat	Liquid fuels
50-100		400	200	300	350
100-300		200	200	300	200
				250 in case of fluidised bed combustion	
>300		150	150	150	150
		200 in case of circulating or pressurised fluidised bed combustion		200 in case of fluidised bed combustion	

26. Emission limit values (mg/Nm³) for SO₂ for combustion plants using gaseous fuels with the exception of gas turbines and gas engines are as set out in Table 8—

Table 8

In general	35
Liquified gas	5
Low calorific gases from coke oven	400
Low calorific gases from blast furnace	200

27. Emission limit values (mg/Nm³) for NO_x for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines are as set out in Table 9—

Table 9

Total rated thermal input (MW)	Coal and lignite and other solid fuels	Biomass and peat	Liquid fuels
50-100	300	250	300
100-300	400 in case of pulverised lignite combustion	200	150
>300	150	150	100
	200 in case of pulverised lignite combustion		

28.—(1) Gas turbines (including CCGT) using light and middle distillates as liquid fuels are subject to an emission limit value for NO_x of 50 mg/Nm³ and for CO of 100 mg/Nm³.

(2) Gas turbines for emergency use that operate less than 500 operating hours per year are not covered by the emission limit values set out in this paragraph.

29.—(1) Emission limit values (mg/Nm³) for NO_x and CO for gas fired combustion plants are as set out in table 10 below—

Table 10

	NO _x	CO
Combustion plants other than gas turbines and gas engines	100	100
Gas turbines (including CCGT)	50(1)	100
Gas engines	75	100

⁽¹⁾ For single cycle gas turbines having an efficiency greater than 35 % – determined at ISO base load conditions – the emission limit value for NO_x is 50xη/35 where η is the gas turbine efficiency at ISO base load conditions expressed as a percentage.

(2) For gas turbines (including CCGT), the NO_x and CO emission limit values set out in this point apply only above 70 % load.

(3) Gas turbines and gas engines for emergency use that operate less than 500 operating hours per year are not covered by the emission limit values set out in this paragraph.

30. Emission limit values (mg/Nm³) for dust for combustion plants using solid or liquid fuels with the exception of gas turbines and gas engines are as set out in Table 11—

Table 11

Total rated thermal input (MW)	
50-300	20
>300	10
	20 for biomass and peat

31. Emission limit values (mg/Nm³) for dust for combustion plants using gaseous fuels with the exception of gas turbines and gas engines are as set out in Table 12—

Table 12

In general	5
Blast furnace gas	10
Gases produced by the steel industry which can be used elsewhere	30

CHAPTER 3

Emission monitoring

32.—(1) The concentrations of SO₂, NO_x and dust in waste gases from each combustion plant with a total rated thermal input of 100 MW or more must be measured continuously unless sub-paragraph (3) applies,

(2) the concentration of CO in waste gases from each combustion plant firing gaseous fuels with a total rated thermal input of 100 MW or more must be measured continuously unless sub-paragraph (3) applies,

(3) SEPA may elect not to require the continuous measurements required by sub-paragraphs (1) and (2) in the following cases—

- (a) for combustion plants with a life span of less than 10 000 operational hours,
- (b) for SO₂ and dust from combustion plants firing natural gas,
- (c) for SO₂ from combustion plants firing oil with known sulphur content in cases where there is no waste gas desulphurisation equipment
- (d) for SO₂ from combustion plants firing biomass if the operator can prove that the SO₂ emissions can under no circumstances be higher than the prescribed emission limit values,

(4) where SEPA does not require continuous measurements, measurements of dust and, for gas fired plants, CO are required at least once every 6 months,

(5) where SEPA does not require continuous measurements, measurements of SO₂ and NO_x are —

- (a) required at least once every 6 months, unless sub-paragraph (b) applies,
- (b) this sub-paragraph applies where SEPA has verified and approved of other procedures to determine SO₂ and NO_x emissions,
- (c) where SEPA has verified and approved of other procedures, procedures must—
 - (i) use relevant CEN standards or British standards,
 - (ii) when relevant CEN or British standards are not available, ISO or other international standards which ensure the provision of data of an equivalent scientific quality,

(6) For combustion plants firing coal or lignite, the emissions of total mercury must be measured at least once per year.

33.—(1) SEPA must be informed of significant changes in the type of fuel used or in the mode of operation of the plant,

(2) where informed of a significant change in accordance with sub-paragraph (1), SEPA must decide whether the monitoring requirements in paragraph 32(1) to (5) and (7) are still adequate or require to be adjusted.

34.—(1) Continuous measurements carried out in accordance with paragraph 32(1) and (2) must include the measurement of the oxygen content, temperature, pressure and water vapour content of the waste gases unless sub-paragraph (2) applies,

(2) the continuous measurement of the water vapour content of the waste gases is not necessary where the sampled waste gas is dried before the emissions are analysed.

35.—(1) The procedures in sub-paragraph (2) must be carried out in accordance with—

- (a) relevant CEN or British standards, or
- (b) where relevant CEN or British standards are not available, ISO or other international standards which ensure the provision of data of an equivalent scientific quality,

(2) (a) sampling and analysis of relevant polluting substances,

(b) measurements of process parameters,

(c) quality assurance of automated measuring systems and the reference measurement methods to calibrate those systems,

(3) the automated measuring systems must be subject to control by means of parallel measurements with the reference methods at least once per year.

36. At the emission limit value level, the values of the 95 % confidence intervals of a single measured result must not exceed the following percentages of the emission limit values—

- (a) Carbon monoxide 10 %,
- (b) Sulphur dioxide 20 %,
- (c) Nitrogen oxides 20 %,
- (d) Dust 30 %.

37.—(1) The validated hourly and daily average values are to be determined from the measured valid hourly average values after having subtracted the value of the confidence interval specified in paragraph 36,

(2) any day in which more than three hourly average values are invalid due to malfunction or maintenance of the automated measuring system must be invalidated.

38. In the case of plants which must comply with the rates of desulphurisation referred to in paragraph 9, the sulphur content of the fuel which is fired in the combustion plant must also be regularly monitored.

CHAPTER 4

Assessment of compliance with emission limit values

39.—(1) For continuous measurements, the emission limit values set out in chapters 1 and 2 are to be regarded as having been complied with if the evaluation of the measurement results indicates, for operating hours within a calendar year, that all of the following conditions have been met—

- (a) no validated monthly average value exceeds the relevant emission limit values set out in chapters 1 and 2,
- (b) no validated daily average value exceeds 110 % of the relevant emission limit values set out in chapters 1 and 2,
- (c) in cases of combustion plants composed only of boilers using coal with a total rated thermal input below 50 MW, no validated daily average value exceeds 150 % of the relevant emission limit values set out in chapters 1 and 2,
- (d) 95 % of all the validated hourly average values over the year do not exceed 200 % of the relevant emission limit values set out in chapters 1 and 2,
- (e) validated average values are determined as set out in paragraph 37,

- (f) for the purpose of the calculation of the average emission values, the values measured during the periods referred to in paragraphs 8 and 11 as well as during the start-up and shut-down periods are to be disregarded.

(2) Where continuous measurements are not required, the emission limit values set out in Chapters 1 and 2 are to be regarded as having been complied with if the results of each of the series of measurements or of the other procedures defined and determined according to the rules laid down by SEPA do not exceed the emission limit values.

CHAPTER 5

Minimum rate of desulphurisation

40. Minimum rate of desulphurisation for combustion plants referred to in sub-paragraphs 6(1) and (2) is as stated in Table 13—

Table 13

Total rated thermal input (MW)	<i>Minimum rate of desulphurisation</i>	
	Plants which were granted a permit before 27 November 2002 or those where a complete application for a permit was submitted before that date, provided that the plant was put into operation no later than 27 November 2003	Other plants
50-100	80%	92%
100-300	90%	92%
>300	96% (1)	96%

⁽¹⁾ For combustion plants firing oil shale, the minimum rate of desulphurisation is 95 %

41. The minimum rate of desulphurisation for combustion plants referred to in paragraph 6(3) are as set out in Table 14—

Table 14

<i>Total rated thermal input (MW)</i>	<i>Minimum rate of desulphurisation</i>
50—100	93%
100-300	93%
>300	97%

42. The minimum rates of desulphurisation set out in this chapter apply as a monthly average limit value.

CHAPTER 6

Average emission limit values for multi-fuel combustion plants within a refinery

43.—(1) Average emission limit values (mg/Nm³) for SO₂ for multi-fuel firing combustion plants within a refinery, with the exception of gas turbines and gas engines, which use the distillation and conversion residues from the refining of crude-oil for own consumption, alone or with other fuels—

- (a) for combustion plants which were granted a permit before 27 November 2002 or the operators of which had submitted a complete application for a permit before

that date, provided that the plant was put into operation no later than 27 November 2003 is 1 000 mg/Nm³,

(b) for other combustion plants: 600 mg/Nm³.

(2) These emission limit values are to be calculated at a temperature of 273.15 K, a pressure of 101.3 kPa and after correction for the water vapour content of the waste gases and at a standardised O₂ content of 6 % for solid fuels and 3 % for liquid and gaseous fuels.
”

DRAFT

SCHEDULE 13

Regulation 8(2)

NEW SCHEDULE 22 TO BE INSERTED INTO THE 2018 REGULATIONS

“SCHEDULE 22

Regulation 6(3)

INCINERATION AND CO-INCINERATION OF SOLID AND LIQUID WASTE AT A WASTE INCINERATION PLANT OR CO-INCINERATION PLANT

PART 1

Scope and Interpretation

Scope

1.—(1) This schedule applies to the incineration and co-incineration of solid or liquid waste at a waste incineration plant or waste co-incineration plant,

(2) paragraph 2 applies for the interpretation of—

- (a) this schedule,
- (b) schedules 11, 19 and 20,
- (c) the definition of the activity of incineration and co-incineration of solid or liquid waste at a waste incineration plant or waste co-incineration plant.

2.—(1) Incineration and co-incineration of solid and liquid waste at a waste incineration plant or waste co-incineration plant does not include the activities in sub-paragraph (2),

(2) (a) the treatment by incineration or co-incineration of only the following waste—

- (i) biomass,
- (ii) radioactive waste,
- (iii) animal carcasses as regulated by Regulation (EC) No. 1069/2009 of the European Parliament and of the Council of 21 October 2009 laying down health rules concerning animal by-products not intended for human consumption^(a),
- (iv) waste resulting from the exploration for, and the exploitation of, oil and gas resources from offshore installations, which is incinerated on board these installations,
- (c) incineration at experimental plants used for research, development and testing in order to improve the incineration process and which treat less than 50 tonnes of waste per year,
- (d) gasification or pyrolysis, where resulting gases from this thermal treatment of waste are purified to the extent that they are no longer waste prior to their incineration and can cause emissions no higher than those resulting from the burning of natural gas.

(a) EUR 1069/2009 as amended by S.I. 2020/1388.

Interpretation: general

3.—(1) In this schedule—

“co-incineration” means—

- (a) the use of waste as a regular or additional fuel in a co-incineration plant, or
- (b) the thermal treatment of waste for the purposes of disposal in a co-incineration plant

“dioxins and furans” means all polychlorinated dibenzo-p-dioxins and dibenzofurans listed in chapter 2 of part 3 of this schedule,

“hazardous waste” means waste that displays one or more of the hazardous properties listed in Annex III to the Waste Framework Directive,

“incineration” means the thermal treatment of waste with or without recovery of the combustion heat generated,

“the 2000 Commission Decision” means Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (notified under document number C(2000) 1147), where possible, and containing information on the quantity of each type of waste, where appropriate^(a),

“mixed municipal waste” means waste from households as well as commercial, industrial and institutional waste which, because of its nature and composition, is similar to waste from households, but excluding —

- (a) separately collected waste from households, including paper and cardboard, glass, metals, plastics, biowaste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture,
- (b) separately collected waste from other sources, where such waste is similar in nature and composition to waste from households,
- (c) waste from production, agriculture, forestry, fishing, septic tanks and sewage network and treatment, including sewage sludge, end-of-life vehicles or waste generated by construction and demolition activities,

“nominal capacity” means the sum of the incineration capacities of the combustion chambers of which a waste incineration plant or a waste co-incineration plant is composed, as specified by the constructor and confirmed by the authorised person, with due account being taken of the calorific value of the waste, expressed as the quantity of waste incinerated per hour,

“residue” means any liquid or solid waste which is generated by a waste incineration plant or waste co-incineration plant,

“separately collected waste” means waste that has been collected and transported in accordance with section 34(2I) of the Environmental Protection Act 1990,

(2) for the purposes of this schedule—

- (a) the definitions “waste incineration plant” and “waste co-incineration plant” include all incineration lines or co-incineration lines, waste reception, storage, on site pre-treatment facilities, waste-, fuel- and air-supply systems, boilers, facilities for the treatment of waste gases, on-site facilities for treatment or storage of residues and waste water, stacks, devices and systems for controlling incineration or co-incineration operations, recording and monitoring incineration or co-incineration conditions,

(a) EUDN 2000/532.

- (b) where processes other than oxidation, such as pyrolysis, gasification or plasma process are applied for the thermal treatment of waste, the waste incineration or waste co-incineration plant includes the thermal treatment process and subsequent incineration processes,
- (c) if waste co-incineration takes place in such a way that the main purpose of the plant is not the generation of energy or production of material products but rather the thermal treatment of waste, the plant is to be regarded as a waste incineration plant.

PART 2

Amendments to Common Framework

Authorisations: Applications

4. An application for an authorisation must include a description of measures to ensure that the following requirements will be met –

- (a) the waste incineration plant or waste co-incineration plant is designed, equipped and will be maintained and operated in such a manner that the requirements of this schedule are met, taking into account the categories of waste to be incinerated or co-incinerated,
- (b) the heat generated during the incineration and co-incineration process is recovered as far as practicable through the generation of heat, steam or power,
- (c) the residues will be minimised in their amount and harmfulness and recycled where appropriate,
- (d) the disposal of the residues which cannot be prevented, reduced or recycled will be carried out in conformity with all applicable law.

Authorisations: General Conditions

5.—(1) SEPA must ensure that all authorisations contain the following—

- (a) a list of all types of waste which may be treated using at least the types of waste set out in the List of Waste in Annex I to the 2000 Commission Decision, where possible, and containing information on the quantity of each type of waste, where appropriate,
- (b) the total waste incinerating or co-incinerating capacity of the plant,
- (c) the limit values for emissions into air and water,
- (d) the requirements for the pH, temperature and flow of wastewater discharges,
- (e) the sampling and measurement procedures and frequencies to be used to comply with the conditions set for emission monitoring,
- (f) the maximum permissible period of any technically unavoidable stoppages, disturbances, or failures of the purification devices or the measurement devices, during which the emissions into the air and the discharges of wastewater may exceed the prescribed emission limit values.
- (g) a requirement that in the event of a breakdown, operations are to be reduced or stopped as soon as practicable until normal operations can be restored,
- (h) a requirement that the waste incineration plant or waste co-incineration plant is operated and controlled by a natural person who is technically competent to manage the plant.

(2) SEPA must ensure that an authorisation for incineration or co-incineration of hazardous waste at a waste incineration plant or waste co-incineration plant includes the following additional conditions—

- (a) a list of the quantities of the different categories of hazardous waste which may be treated,
- (b) the minimum and maximum mass flows of those hazardous wastes, their lowest and maximum calorific values and their maximum contents of polychlorinated biphenyls, pentachlorophenol, chlorine, fluorine, sulphur, heavy metals and other polluting substances.

(3) SEPA must ensure that an authorisation for the incineration or co-incineration of municipal waste includes such additional conditions as it considers necessary to ensure, where practicable, that no waste including non-ferrous metals or hard plastics is incinerated or co-incinerated.

(4) SEPA must ensure that an authorisation for the incineration or co-incineration of waste with energy recovery includes such additional conditions as it considers necessary to ensure that the recovery of energy takes place with a high level of energy efficiency.

Authorisations: Control of Emissions

6. SEPA must ensure that an authorisation for the incineration or co-incineration of waste at a waste incineration plant or co-incineration plant includes such conditions as it considers appropriate to ensure that—

- (a)
 - (i) waste gases are be discharged in a controlled way by means of a stack the height of which is calculated in such a way as to safeguard human health and the environment,
 - (ii) emissions into air do not exceed the emission limit values set out in chapters 3 and 4 of part 3 or are determined in accordance with chapter 4 of Part 3,
 - (iii) where in a waste co-incineration plant more than 40 % of the resulting heat release comes from hazardous waste, or where the plant co-incinerates untreated mixed municipal waste, the emission limit values set out in chapter 3 of Part 3 apply,
- (b)
 - (i) discharges to the aquatic environment of wastewater resulting from the cleaning of waste gases are limited as far as practicable and the concentrations of polluting substances does not exceed the emission limit values set out in chapter 5 of Part 3,
 - (ii) for the purposes of sub-paragraph (i), the emission limit values set out in chapter 5 of Part 3 apply at the point where waste waters from the cleaning of waste gases are discharged from the plant,
- (c) where waste waters from the cleaning of waste gases are treated outside the waste incineration or co-incineration plant, at a treatment plant intended only for the treatment of this sort of waste water, the emission limit values set out in chapter 5 of Part 3 are to be applied at the point where the waste waters leave the treatment plant,
- (d) where waste waters from the cleaning of waste gases are treated collectively with other sources of waste water, either on site or off site, the authorised person must make the appropriate mass balance calculations, using the results of the measurements set out in paragraph 27 in order to determine the emission levels in the final waste water discharge that can be attributed to the waste water arising from the cleaning of waste gases,
- (e) for the purpose of complying with the emission limit values set out in chapter 5 of Part 3, wastewater is not to be diluted,
- (f) waste incineration plant and co-incineration plant sites, including associated storage areas for waste, must be designed and operated in such a way as to prevent the unauthorised and accidental release of any polluting substances into soil, surface water and groundwater,

- (g) storage capacity must be provided for contaminated rainwater run-off from the waste incineration plant site or waste co-incineration plant site or for contaminated water arising from spillage or fire-fighting operations,
- (h) the storage capacity referred to in sub-paragraph (g) must be adequate to ensure that such waters can be tested and treated before discharge where necessary,
- (i) without prejudice to paragraph 9(4)(c), the plant or individual furnaces being part of a waste incineration plant or waste co-incineration plant must not continue to incinerate waste for a period of more than 4 hours uninterrupted where emission limit values are exceeded,
- (j) where one or more combustion chambers are linked to a single waste gas cleaning device, the cumulative duration of operation in conditions where emission limit values are exceeded must not exceed 60 hours over one year,
- (k) compliance with emission limit values for air and water is achieved where the conditions described in Chapter 8 of Part 3 are satisfied.

Authorisations: Emissions Monitoring

7. SEPA must ensure that an authorisation for the incineration or co-incineration of waste at a waste incineration plant or co-incineration plant includes such conditions as it considers appropriate to ensure that—

- (a) the monitoring of emissions is carried out in accordance with Chapters 6 and 7 of Part 3,
- (b) the installation and functioning of automated measuring systems is subject to control and to annual surveillance tests as set out in paragraph 25,
- (c) the location of the sampling or measurement points to be used for monitoring of emissions are designated,
- (d) the monitoring results are recorded, processed and presented in such a way as to enable SEPA to verify compliance with the operating conditions and emission limit values included in the authorisation,
- (e) continuous measurement of emissions into the air of the following—
 - (i) heavy metals,
 - (ii) dioxins,
 - (iii) furans,
 - (iv) dioxin-like polychlorinated biphenyls,
 - (v) polycyclic aromatic hydrocarbons.

Authorisations: Operating conditions

8. SEPA must ensure that an authorisation for the incineration or co-incineration of waste at a waste incineration plant or co-incineration plant includes such conditions as it considers appropriate to ensure that—

- (a) waste incineration plants are operated to achieve a level of incineration, using waste pre-treatment techniques where necessary, so that—
 - (i) the total organic carbon content of slag and bottom ashes is less than 3 % of the dry weight of the material, or
 - (ii) the loss on ignition of the slag and bottom ashes is less than 5 % of the dry weight of the material,
- (b) waste incineration plants must be designed, equipped, built and operated in such a way that the gas resulting from the incineration of waste is raised, after the last injection of combustion air, in a controlled and homogeneous fashion and even

under the most unfavourable conditions, to a temperature of at least 850 °C for at least two seconds,

- (c) waste co-incineration plants must be designed, equipped, built and operated in such a way that the gas resulting from the co-incineration of waste is raised in a controlled and homogeneous fashion and even under the most unfavourable conditions, to a temperature of at least 850 °C for at least two seconds,
- (d) if hazardous waste with a content of more than 1 % of halogenated organic substances, expressed as chlorine, is incinerated or co-incinerated, the temperature required to comply with sub-paragraphs (b) and (c) is at least 1 100 °C,
- (e) in waste incineration plants, the temperatures set out in sub-paragraphs (b) and (d) must be measured—
 - (i) near the inner wall of the combustion chamber, or
 - (ii) such other representative point of the combustion chamber as authorised by SEPA,
- (f) each combustion chamber of a waste incineration plant must be equipped with at least one auxiliary burner to be used in accordance with sub-paragraphs (g), (h) and (i),
- (g) the auxiliary burner must be switched on automatically when the temperature of the combustion gases after the last injection of combustion air falls below the temperatures set out in sub-paragraphs (b), (c) and (d),
- (h) the auxiliary burner must be used during plant start-up and shut-down operations to ensure that those temperatures are maintained at all times during these operations and as long as unburned waste is in the combustion chamber,
- (i) the auxiliary burner must not be fed with fuels which can cause higher emissions than those resulting from the burning of gas oil,
- (j) waste incineration plants or co-incineration plants must operate an automatic system to prevent waste feed in the circumstances described in sub-paragraphs (i), (ii) and (iii)—
 - (i) at start-up, until the temperature set out in sub-paragraphs (b), (c), (d) or otherwise specified by SEPA in accordance with paragraph 10, has been reached,
 - (ii) whenever the temperature set out in sub- paragraphs (b), (c), (d) or otherwise specified by SEPA in accordance with paragraph 10 is not maintained,
 - (iii) whenever the continuous measurements show that any emission limit value is exceeded due to disturbances or failures of the waste gas cleaning devices.
- (k) any heat generated by waste incineration plants or waste co-incineration plants must be recovered as far as practicable,
- (l) infectious clinical waste must be placed straight in the furnace, without first being mixed with other categories of waste and without direct handling,
- (m) In this paragraph, “gas oil” includes the fuels in sub-paragraphs (i) and (ii), but not those fuels in sub-paragraphs (iii) and (iv)—
 - (i) any petroleum-derived liquid fuel, excluding marine fuel, falling within CN codes 2710 19 25, 2710 19 29, 2710 19 47, 2710 19 48, 2710 20 17 or 2710 20 19,
 - (ii) any petroleum-derived liquid fuel, excluding marine fuel, of which less than 65 % by volume (including losses) distils at 250 °C and of which at least 85 % by volume (including losses) distils at 350 °C by the ASTM D86 method,
 - (iii) diesel fuels falling within CN code 2710 19 41,
 - (iv) fuels used in non-road mobile machinery and agricultural tractors.

Variations to operating conditions

9.—(1) SEPA may specify a level of incineration different to paragraph 8(a), (f), (g) and (i) provided that any change meets the requirements in sub-paragraph (3) and schedule 22,

(2) SEPA may specify a temperature other than those specified in paragraph 8(b), (c), (d), (e), (j)(i) and (j)(ii) provided that any change meets the requirements in sub-paragraph (3),

(3) the requirements are—

- (a) for waste incineration plants, that the change does not cause more residues or residues with a higher content of organic polluting substances compared with the residues that would be expected if conditions were set in accordance with paragraphs 8(a) to (j),
- (b) for waste co-incineration plants, the emissions of total organic carbon and carbon monoxide must comply with the emission limit values set out in part 3 of schedule 22,
- (c) emissions of total organic carbon from bark boilers within the pulp and paper industry co-incinerating waste at the place of its productions, which were in operation and had an authorisation before 28 December 2002, must comply with the emission limit values set out in Chapter 3 of Part 3.

Authorisations: Delivery and reception of waste

10. SEPA must ensure that an authorisation for the incineration or co-incineration of waste at a waste incineration plant or co-incineration plant includes such conditions as it considers appropriate to ensure that—

- (a) all necessary precautions are taken to prevent or limit as far as practicable in relation to the delivery and reception of waste—
 - (i) the pollution of air, soil, surface water and groundwater,
 - (ii) other negative effects on the environment, odours and noise,
 - (iii) direct risks to human health,
- (b) the mass of each type of waste is determined, where possible in accordance with the List of Waste in Annex I to the 2000 Commission Decision prior to the acceptance of waste at the waste incineration or waste co-incineration plant,
- (c) prior to the acceptance of hazardous waste at a waste incineration or waste co-incineration plant, all available information contained in sub-paragraphs(a) – (c) must be obtained—
 - (i) all the administrative information on the generating process contained in the documents described in sub-paragraph (d)(i),
 - (ii) the physical, and as far as practicable, chemical composition of the waste and all other information necessary to evaluate its suitability for the intended incineration process,
 - (iii) the hazardous characteristics of the waste, the substances with which it cannot be mixed, and the precautions to be taken in handling the waste
- (d) prior to the acceptance of hazardous waste at the waste incineration plant or waste co-incineration plant, at least the following procedures must be carried out –
 - (i) the checking of the documents required by retained EU law which implemented the Waste Framework Directive and, where applicable, those required by Regulation (EC) No 1013/2006 of the European Parliament and of

the Council of 14 June 2006 on shipments of waste^(a) and by legislation on transport of dangerous goods

- (ii) the taking of representative samples, unless inappropriate as far as possible before unloading, to verify conformity with the information provided for in sub-paragraph (c) by carrying out controls and to enable SEPA to identify the nature of the wastes treated.
- (iii) the samples referred to in sub-paragraph (b) must be kept for at least 1 month after the incineration or co-incineration of the waste concerned
- (e) SEPA may grant an exemption to sub-paragraphs (b)-(d) where SEPA has determined that the incineration or co-incineration of waste is carried on at an installation covered by schedule 20 and only incinerates or co-incinerates waste generated within that installation.

Authorisations: residues

11. SEPA must ensure that an authorisation for the incineration or co-incineration of waste at a waste incineration plant or co-incineration plant includes such conditions as it considers appropriate to ensure that—

- (a) residues are minimised in their amount and harmfulness,
- (b) residues are recycled, where appropriate, directly in the plant or outside,
- (c) transport and intermediate storage of dry residues in the form of dust takes place in such a way as to prevent dispersal of those residues in the environment,
- (d) (i) appropriate tests are carried out to establish the physical and chemical characteristics and the polluting potential of residues prior to determining routes for the recycling or disposal of residues,
(ii) tests referred to in sub-paragraph (i) must concern the total soluble fraction and heavy metals soluble fraction of any residues.

Authorisations: incineration of batteries

12.—(1) SEPA must ensure that authorisations for the incineration of waste include a condition prohibiting the incineration of waste industrial and automotive batteries.

(2) a condition imposed under sub-paragraph (1) does not prohibit the incineration of residues of any batteries that have undergone both treatment and recycling, provided that the treatment and recycling—

- (a) used best available techniques, in terms of the protection of health and the environment,
- (b) complied, at a minimum, with national law, in particular as regards health and safety and waste management.

Authorisations: review of conditions

13.—(1) SEPA must periodically review and, where necessary, update permit conditions,

(2) SEPA must periodically review, and where necessary, update standard conditions applicable to waste incineration and waste co-incineration activities.

Reports

14.—(1) SEPA must ensure that authorisations for waste incineration plants or waste co-incineration plants with a nominal capacity of 2 tonnes or more per hour include such

(a) EUR 1013/2006.

conditions as it considers appropriate to ensure that the following information is kept and provided to SEPA—

- (a) information on the functioning and monitoring of the plant,
- (b) an account of the running of the incineration or co-incineration process,
- (c) the level of emissions into air and water in comparison with the emission limit values,

(2) SEPA must maintain a list of waste incineration plants and waste co-incineration plants with a nominal capacity of less than 2 tonnes per hour.

Public Consultation

15. Public consultation in accordance with paragraph 8 of schedule 1 is required in relation to an application for an authorisation for a waste incineration plant or co-incineration plant.

PART 3

Technical provisions relating to waste incineration plants and waste co-incineration plants

CHAPTER 1

Definitions

16. For the purpose of this Part the following definitions apply—

- (a) “existing waste incineration plant” means one of the following waste incineration plants—
 - (i) a waste incineration plant which was in operation before 28 December 2002,
 - (ii) a waste incineration plant for which a permit was granted before 28 December 2002, provided that the waste incineration plant was put into operation no later than 28 December 2003,
 - (iii) a waste incineration plant which, in the opinion of SEPA, had submitted a full application for a permit before 28 December 2002, provided that the plant was put into operation not later than 28 December 2004,
- (b) “new waste incineration plant” means any waste incineration plant not described in sub-paragraph (a).

CHAPTER 2

Equivalence factors for dibenzo-p-dioxins and dibenzofurans

17. In order to determine the total concentration of dioxins and furans, the mass concentrations of the dibenzo-p-dioxins and dibenzofurans in column 1 of Table 1 must be multiplied by the equivalence factors in column 2 of Table 1 before totalling,

Table 1

	<i>Toxic equivalence factor</i>
2,3,7,8 — Tetrachlorodibenzodioxin (TCDD)	1
1,2,3,7,8 — Pentachlorodibenzodioxin (PeCDD)	0.5
1,2,3,4,7,8 — Hexachlorodibenzodioxin (HxCDD)	0.1
1,2,3,6,7,8 — Hexachlorodibenzodioxin (HxCDD)	0.1
1,2,3,7,8,9 — Hexachlorodibenzodioxin (HxCDD)	0.1
1,2,3,4,6,7,8 — Heptachlorodibenzodioxin (HpCDD)	0.01
Octachlorodibenzodioxin (OCDD)	0.001
2,3,7,8 — Tetrachlorodibenzofuran (TCDF)	0.1
2,3,4,7,8 — Pentachlorodibenzofuran (PeCDF)	0.5
1,2,3,7,8 — Pentachlorodibenzofuran (PeCDF)	0.05
1,2,3,4,7,8 — Hexachlorodibenzofuran (HxCDF)	0.1
1,2,3,6,7,8 — Hexachlorodibenzofuran (HxCDF)	0.1
1,2,3,7,8,9 — Hexachlorodibenzofuran (HxCDF)	0.1
2,3,4,6,7,8 — Hexachlorodibenzofuran (HxCDF)	0.1
1,2,3,4,6,7,8 — Heptachlorodibenzofuran (HpCDF)	0.01
1,2,3,4,7,8,9 — Heptachlorodibenzofuran (HpCDF)	0.01
Octachlorodibenzofuran (OCDF)	0.001

CHAPTER 3

Air emission limit values for waste incineration plants

18.—(1) All emission limit values are to be calculated—

- (a) at a temperature of 273.15 K,
- (b) a pressure of 101.3 kPa, and
- (c) after correcting for the water vapour content of the waste gases,

(2) Emission limit values are standardised at 11 % oxygen in waste gas unless sub-paragraph (3) applies.

(3) This sub-paragraph applies—

- (a) to the incineration of mineral waste oil, in which case, they are standardised at 3 % oxygen, and
- (b) in the circumstances referred to in paragraph 24(4)(c) and (5),

(4) Daily average emission limit values (mg/Nm³) for the polluting substances listed in column 1 of Table 2 are as listed in column 2.

Table 2

Total dust	10
Gaseous and vaporous organic substances, expressed as total organic carbon (TOC)	10
Hydrogen chloride (HCl)	10
Hydrogen fluoride (HF)	1
Sulphur dioxide (SO ₂)	50
Nitrogen monoxide (NO) and nitrogen dioxide (NO ₂), expressed as NO ₂ for existing waste incineration plants with a nominal capacity exceeding 6 tonnes per hour or new waste incineration plants	200
Nitrogen monoxide (NO) and nitrogen dioxide (NO ₂), expressed as NO ₂ for existing waste incineration plants with a nominal capacity of 6 tonnes per hour or less	400

(5) Half-hourly average emission limit values (mg/Nm³) for the polluting substances listed in column 1 of Table 3 are as listed in columns 2 and 3.

Table 3

	(100%) A	(97%) B
Total dust	30	10
Gaseous and vaporous organic substances, expressed as total organic carbon (TOC)	20	10
Hydrogen chloride (HCl)	60	10
Hydrogen fluoride (HF)	4	2
Sulphur dioxide (SO ₂)	200	50
Nitrogen monoxide (NO) and nitrogen dioxide (NO ₂), expressed as NO ₂ for existing waste incineration plants with a nominal capacity exceeding 6 tonnes per hour or new waste incineration plants	400	200

(6) (a) Average emission limit values (mg/Nm³) for the heavy metals in column 1 of Table 4 are as listed in column 2 over a sampling period of a minimum of 30 minutes and a maximum of 8 hours,

(b) the average values in column 2 cover the gaseous and vapour forms of the relevant heavy metal emissions and their compounds.

Table 4

Cadmium and its compounds, expressed as cadmium (Cd)	Total: 0.05
Thallium and its compounds, expressed as	Total: 0.05

thallium (Tl)	
Mercury and its compounds, expressed as mercury (Hg)	0.05
Antimony and its compounds, expressed as antimony (Sb)	Total: 0.5
Arsenic and its compounds, expressed as arsenic (As)	Total: 0.5
Lead and its compounds, expressed as lead (Pb)	Total: 0.5
Chromium and its compounds, expressed as chromium (Cr)	Total: 0.5
Cobalt and its compounds, expressed as cobalt (Co)	Total: 0.5
Copper and its compounds, expressed as copper (Cu)	Total: 0.5
Manganese and its compounds, expressed as manganese (Mn)	Total: 0.5
Nickel and its compounds, expressed as nickel (Ni)	Total: 0.5
<hr/>	
Vanadium and its compounds, expressed as vanadium (V)	Total: 0.5

(7) (a) the average emission limit value (ng/Nm^3) for dioxins and furans over a sampling period of a minimum of 6 hours and a maximum of 8 hours is 0.1,

(b) the emission limit value in sub-paragraph (a) refers to the total concentration of dioxins and furans calculated in accordance with Chapter 2.

(8) (a) Emission limit values (mg/Nm^3) for carbon monoxide (CO) in the waste gases are—

- (i) 50 as a daily average value,
- (ii) 100 as a half-hourly average value,
- (iii) 150 as a 10 -minute average value,

(b) SEPA may grant exemptions from the emission limit values in sub-paragraph (a) for waste incineration plants using fluidised bed technology,

(c) where an exemption is granted in accordance with sub-paragraph (b), the emission limit value for carbon monoxide (CO) must be set at no more than $100 \text{ mg}/\text{Nm}^3$ as an hourly average value,

(9) Emission limit values applicable in the circumstances described in paragraphs 5(1)(g), 6(i), and (j) are—

- (a) The total dust concentration in the emissions into the air of a waste incineration plant must not exceed $150 \text{ mg}/\text{Nm}^3$ expressed as a half-hourly average,
- (b) The air emission limit values for TOC and CO set out in sub-paragraph (5) and (8)(a)(ii) must not be exceeded.

CHAPTER 4

Determination of air emission limit values for the co-incineration of waste

19.—(1) The formula (mixing rule) in sub-paragraph (2) is to be applied whenever a specific total emission limit value ‘C’ has not been set out in a table in this Chapter.

(2) The emission limit value for each relevant polluting substance and CO in the waste gas resulting from the co-incineration of waste is to be calculated as follows—

$$\frac{V_{\text{waste}} \times C_{\text{waste}} + V_{\text{proc}} \times C_{\text{proc}}}{V_{\text{waste}} + V_{\text{proc}}} = C$$

(3) In this Chapter—

“V_{waste}” means—

- (a) waste gas volume resulting from the incineration of waste only determined from the waste with the lowest calorific value specified in the permit and standardised at the conditions given by this schedule,
- (b) where the resulting heat release from the incineration of hazardous waste amounts to less than 10 % of the total heat released in the waste incineration or co-incineration plant, V_{waste} must be calculated from a (notional) quantity of waste that, being incinerated, would equal 10 % heat release, the total heat release being fixed.

“C_{waste}” means emission limit values for waste incineration plants set out in Chapter 3,

“V_{proc}” means waste gas volume resulting from the plant process including the combustion of the authorised fuels normally used in the plant (wastes excluded) determined on the basis of—

- (a) oxygen contents at which the emissions must be standardised as set out in these regulations,
- (b) where not provided for within these regulations, the real oxygen content in the waste gas without being thinned by addition of air unnecessary for the process,

“C_{proc}” means—

- (a) emission limit values as set out in this Chapter for certain industrial activities,
- (b) in the absence of the values in (a), emission limit values of plants which comply with these regulations for such plants while burning the normally authorised fuels (wastes excluded),
- (c) in the absence of the values in (a) or (b), the emission limit values set out in the permit,
- (d) in the absence of the values in (a), (b) or (c), the real mass concentrations

“C” means—

- (a) emission limit values at an oxygen content as set out in this Chapter for certain industrial activities and certain polluting substances,
- (b) in the absence of such values, total emission limit values replacing the emission limit values as set out in schedules 20-24,
- (c) where the total oxygen content to replace the oxygen content for the standardisation is to be calculated on the basis of the content above respecting the partial volumes,
- (d) all emission limit values are to be calculated at a temperature of 273.15 K, a pressure of 101.3 kPa and after correcting for the water vapour content of the waste gases.

Special provisions for cement kilns co-incinerating waste

19.—(1) The emission limit values in this paragraph are to be calculated—

- (a) as daily average values for total dust, HCl, HF, NO_x, SO₂ and TOC for continuous measurements,
- (b) as average values over the sampling period of a minimum of 30 minutes and a maximum of 8 hours for heavy metals,
- (c) as average values over the sampling period of a minimum of 6 hours and a maximum of 8 hours for dioxins and furans,

(2) all emission limit values in this paragraph are standardised at 10 % oxygen,

(3) half-hourly average values are only to be needed in order to calculate the daily average values

(4) total emission limit values (C) expressed in mg/Nm³ except for dioxins and furans, for the polluting substances in column 1 of table 5 are as provided for in column 2—

Table 5

Polluting substance	C
Total dust	30
HCl	10
HF	1
NO _x	500
Cd + Tl	0.05
Hg	0.05
Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V	0.5
Dioxins and furans (ng/Nm ³)	0.1

(5) The total emission limit value (C) for SO₂ expressed in mg/Nm³ is 50,

(6) The total emission limit value (C) for TOC, expressed in mg/Nm³ is 10,

(7) The total emission limit value (C) for CO may be set by SEPA.

(8) SEPA may set a different total emission limit value (C) for SO₂ and TOC where the SO₂ or TOC does not result from the co-incineration of waste.

Special Provisions for Combustion plants co-incinerating waste

20.—(1) C_{proc} is to be expressed as a daily average values (mg/Nm³),

(2) the aggregation rules in paragraph 3 of schedule 21 apply to determining the total rated thermal input of combustion plants,

(3) half-hourly average values are only needed for the purpose of calculating the daily average values,

(4) C_{proc} for combustion plants referred to in paragraph 6(1) of schedule 21, with the exception of gas turbines and gas engines, are as set out in Table 6—

Table 6

C_{proc} for solid fuels with the exception of biomass (O₂ content: 6%)				
Polluting substance	<50 MWth	50-100 MWth	100 to 300 MWth	>300 MWth
SO ₂	-	400	200	200
NO _x	-	300 for peat 300 400 for pulverised lignite	200	200
Dust	50	30	25 For peat: 20	20
C_{proc} for biomass (O₂ content: 6%)				
Polluting	<50 MWth	50-100 MWth	100 to 300	>300 MWth

substance	MWth			
SO ₂	-	200	200	200
Nox	-	300	250	200
Dust	50	30	20	20
C_{proc} for liquid fuels (O₂ content: 3%)				
Polluting substance	<50 MWth	50-100 MWth	100 to 300 MWth	>300 MWth
SO ₂	-	350	250	200
NO _x	-	400	200	150
Dust	50	30	25	20

(5) C_{proc} for combustion plants referred to in paragraph 6(3) of schedule 21, with the exception of gas turbines and gas engines, are as set out in table 7—

Table 7

<i>Polluting substance</i>	<i><50 MWth</i>	<i>50-100 MWth</i>	<i>100 to 300 MWth</i>	<i>>300 MWth</i>
C_{proc} for solid fuels with the exception of biomass (O₂ content: 6 %)				
SO ₂	-	400 300 for peat	200 300 for peat, except in the case of fluidised bed combustion: 250	150 for circulating or pressurised fluidised bed combustion or, in the case of peat firing, for all fluidised bed combustion: 200
NO _x	-	300 For peat: 250	200	150 For pulverised lignite combustion: 200
Dust	50	20	20	10 For peat: 20
C_{proc} for biomass (O₂ content: 6%)				
SO ₂	-	200	200	150
NO _x	-	250	200	150
Dust	50	20	20	20
C_{proc} for liquid fuels (O₂ content: 3%)				
SO ₂	-	350	200	150
NO _x	-	300	150	100
Dust	50	20	20	10

(6) Total emission limit values (C) for heavy metals (mg/Nm³) expressed as average values over the sampling period of a minimum of 30 minutes and a maximum of 8 hours (O₂ content 6 % for solid fuels and 3% for liquid fuels is as provided for in Table 8—

Table 8

<i>Polluting substances</i>	<i>C</i>
Cd + Tl	0.05
Hg	0.05
Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V	0.5

(7) Total emission limit value (ng/Nm³) for dioxins and furans expressed as average value measured over the sampling period of a minimum of 6 hours and a maximum of 8 hours (O₂ content 6 % for solid fuels and 3% for liquid fuels) is 0.1.

Special provisions for waste co-incineration plants in industrial sectors not covered under paragraphs 20 and 21 of this Part

21.—(1) Total emission limit value (C) (ng/Nm³) for dioxins and furans expressed as average value measured over the sampling period of a minimum of 6 hours and a maximum of 8 hours is 0.1,

(2) Total emission limit values (C) for heavy metals expressed as average values over the sampling period of a minimum of 30 minutes and a maximum of 8 hours are—

- (a) for Cd and Tl, 0.05,
- (b) for Hg, 0.05

CHAPTER 5

Emission limit values for discharges of wastewater from the cleaning of waste gases

22. Emission limit values for discharges of wastewater from the cleaning of waste gases are as provided for in Table 9—

Table 9

<i>Polluting Substances</i>	<i>Emission limit values for unfiltered samples (mg/l except for dioxins and furans)</i>	
1. Total suspended solids as defined in Annex I of Directive 91/271/EEC concerning urban wastewater treatment (1)	(95%) 30	(100%) 45
2. Mercury and its compounds, expressed as mercury (Hg)	0.03	
3. Cadmium and its compounds, expressed as cadmium (Cd)	0.05	
4. Thallium and its compounds, expressed as thallium (Tl)	0.05	
5. Arsenic and its compounds, expressed as arsenic (As)	0.15	
6. Lead and its compounds, expressed as lead (Pb)	0.2	
7. Chromium and its compounds, expressed as chromium (Cr)	0.5	
8. Copper and its compounds, expressed as copper (Cu)	0.5	
9. Nickel and its compounds, expressed as nickel (Ni)	0.5	
10. Zinc and its compounds, expressed as	1.5	

zinc (Zn)

11. Dioxins and furans

0.3 ng/l

⁽¹⁾ OJ L 135, 30.5.1991, p. 40 as amended by Directive 98/15/EC (OJ L 67, 7.3.1998, p. 29), Regulation 1882/2003 (OJ L 284, 31.10.2003, p. 1), Regulation 1137/2008 (OJ L 311, 21.11.2008, p. 1) and Directive 2013/64 (OJ L 353, 28.12.2013, p. 8).

CHAPTER 6

Monitoring of Emissions

Measurement techniques

23.—(1) Measurements for the determination of concentrations of air and water polluting substances must be carried out representatively,

(2) The assessments in sub-paragraph (3) must be carried out in accordance with—

- (a) relevant British or CEN standards, or
- (b) where a relevant British or CEN standard is not available, ISO or other international standards which ensure that provision of data of equivalent scientific standard may be used,

(3) (a) sampling and analysis of all polluting substances including dioxins and furans,

- (b) quality assurance of automated measuring systems,
- (c) reference measurement methods to calibrate the automated measuring systems referred to in head (a),

(4) Automated measuring systems are to be subject to control by means of parallel measurements with the reference methods at least once per year,

(5) At the daily emission limit value level, the values of the 95 % confidence intervals of a single measured result must not exceed the following percentages of the emission limit values for—

- (a) carbon monoxide, 10%,
- (b) sulphur dioxide, 20%,
- (c) nitrogen dioxide, 20%,
- (d) total dust, 30%,
- (e) total organic carbon, 30%,
- (f) hydrogen chloride, 40%,
- (g) hydrogen fluoride, 40%,

(6) Periodic measurements of the emissions into air and water must be carried out in accordance with sub-paragraphs (1), (2) and (3).

Measurements relating to air polluting substances

24.—(1) The requirements in sub-paragraphs (2) to (8) relating to the measurement of air polluting substances must be carried out unless paragraph 27 applies.

(2) Continuous measurements are required of—

- (a) (i) NO_x, provided that emission limit values are set,
- (ii) CO,
- (iii) total dust,
- (iv) TOC,
- (v) HCl, unless head (b) applies,

- (vi) HF,
- (vii) SO₂,
- (b) (i) this head applies where treatment stages for HCl are used which ensure that the emission limit value is not being exceeded,
- (ii) where this head applies, emissions of HF may be measured—
 - (aa) every three months during the first twelve months of operation,
 - (b) two times per year in every subsequent year,
- (3) Continuous measurements are required of—
 - (a) temperature near the inner wall or at another representative point of the combustion chamber if authorised by SEPA,
 - (b) concentration of oxygen,
 - (c) pressure,
 - (d) temperature,
 - (e) water vapour content of the waste gas, unless the sampled waste gas is dried before emissions are analysed,
- (4) For heavy metals, dioxins, furans, dioxin-like polychlorinated biphenyls and polycyclic aromatic hydrocarbons, measurements are required —
 - (i) every three months during the first twelve months of operation,
 - (ii) two times per year in every subsequent year,
- (5) Appropriate verification of residence time, minimum temperature and the oxygen content of the waste gases is required in relation to the measurements in this paragraph,
- (6) “appropriate verification” in sub-paragraph (5) means—
 - (a) at least once when the waste incineration plant or waste co-incineration plant is brought into service, and
 - (b) at least once under the most unfavourable operating conditions anticipated.
- (7) The results of the measurements in this paragraph are required to be standardised —
 - (a) using the standard oxygen concentrations in chapter 3 —
 - (i) 11% oxygen in waste gas,
 - (ii) 3% oxygen in the case of mineral waste oil,
 - (b) calculated in accordance with Chapter 4 and by applying the formula in Chapter 7, or
 - (c) where waste is incinerated or co-incinerated in an oxygen-enriched atmosphere, at an oxygen content specified by SEPA in authorisation conditions,
- (8) where emissions of polluting substances are reduced by waste gas treatment in a waste incineration plant or waste co-incineration plant treating hazardous waste, standardisation in accordance with sub-paragraph (7) is only to be done if the oxygen content measured over the same period as for the polluting substance concerned exceeds the relevant standard oxygen content.

25.—(1) SEPA may decide not to require continuous measurement and require periodic measurement or no measurement of any one or more of HCl, HF and SO₂ where the authorised person can demonstrate that emissions of those substances cannot be higher than the prescribed emission limit values under any circumstance,

(2) SEPA may decide not to require continuous measurement and require periodic measurements of NO_x in an existing waste incineration or an existing waste co-incineration plant with a nominal capacity of less than 6 tonnes per hour where the authorised person can demonstrate that the emissions of NO_x cannot under any circumstances be higher than the prescribed emission limit value based upon—

- (a) information on the quality of the waste concerned,

- (b) the technologies used,
 - (c) the results of emissions monitoring,
- (3) SEPA may require one measurement every two years for heavy metals and one measurement every year for dioxins and furans where the following circumstances apply—
- (a) the emissions resulting from co-incineration or incineration of waste are below 50% of the emission limit values under all circumstances,
 - (b) the waste to be co-incinerated or incinerated consists only of sorted combustible fractions of non-hazardous waste not suitable for recycling, and
 - (c) the authorised person can demonstrate on the basis of information on the quality of the waste concerned and emissions monitoring that under all circumstances, emissions are significantly below the emission limit values for heavy metals and dioxins and furans,
- (4) In this paragraph, “periodic measurement” means—
- (a) every three months during the first twelve months of operation,
 - (b) two times per year in every subsequent year,

Measurements relating to water polluting substances

26.—(1) The following measurements must be carried out at the point of wastewater discharge—

- (a) continuous measurements of pH, temperature and flow,
 - (b) spot sample daily measurements of total suspended solids or measurements of a flow proportional representative sample over a period of 24 hours,
 - (c) at least monthly measurements of a flow proportional representative sample of the discharge over a period of 24 hours of Hg, Cd, Tl, As, Pb, Cr, Cu, Ni and Zn,
 - (d) for the first 12 months of operation, measurements of dioxins and furans at least every three months,
 - (e) for every subsequent year of operation, measurements of dioxins and furans at least every 6 months,
- (2) Where the wastewater from the cleaning of waste gases is treated on site collectively with other on-site sources of wastewater, the measurements must be taken—
- (a) on the wastewater stream from the waste gas cleaning processes prior to its input into the collective wastewater treatment plant,
 - (b) on the other wastewater stream or streams prior to its or their input into the collective wastewater treatment plant,
 - (c) at the point of final wastewater discharge, after the treatment, from the waste incineration plant or waste co-incineration plant

CHAPTER 7

Formula to calculate the emission concentration at the standard percentage oxygen concentration

27.—(1) The following formula is to be used to calculate the emission concentration at the standard percentage oxygen concentration—

$$E_S = \frac{21 - O_S}{21 - O_M} \times E_M$$

(2) In sub-paragraph (1)—

“E_S” means calculated emission concentration at the standard percentage oxygen concentration,

“E_M” means measured emission concentration,

“O_S” means standard oxygen concentration,

“O_M” means measured oxygen concentration.

CHAPTER 8

Assessment of compliance with emission limit values

Air emission limit values

28. The emission limit values for air are to be regarded as being complied with where—

- (a) none of the daily average values exceeds any of the emission limit values set out in paragraph 18(4), Chapter 4 or as calculated in accordance with Chapter 4,
- (b) (i) none of the half-hourly average values exceeds any of the emission limit values set out in column 1 of table 3 under paragraph 18(5), or
(ii) where relevant, 97 % of the half-hourly average values over the year do not exceed any of the emission limit values set out in column 2 of table 3 under paragraph 18(5),
- (c) none of the average values over the sampling period set out for heavy metals and dioxins and furans exceeds the emission limit values set out in paragraphs 18(6) and 18(7), in Chapter 4 or as calculated in accordance with Chapter 4,
- (d) for carbon monoxide—
 - (i) in the case of waste incineration plants—
 - (aa) at least 97 % of the daily average values over the year do not exceed the emission limit value set out in paragraph 18(8)(a)(i), and
 - (bb) at least 95 % of all 10-minute average values taken in any 24- hour period or all of the half-hourly average values taken in the same period do not exceed the emission limit values set out in paragraph 18(8)(a)(ii) and (iii),
 - (ii) in relation to sub-head (i)(bb), where the gas resulting from the incineration process is raised to a temperature of at least 1 100 °C for at least two seconds, SEPA may apply an evaluation period of 7 days for the 10-minute average values,
 - (iii) in relation to waste co-incineration plants, the provisions of Chapter 4 are met,
- (e) (i) half-hourly average values and the 10-minute averages must be determined within the effective operating time (excluding the start-up and shut-down periods if no waste is being incinerated) from the measured values after having subtracted the value of the confidence interval specified in paragraph 24(4),
(ii) daily average values must be determined from those validated average values,
(iii) to obtain a valid daily average value no more than five half-hourly average values in any day may be discarded due to malfunction or maintenance of the continuous measurement system,
(iv) no more than ten daily average values per year may be discarded due to malfunction or maintenance of the continuous measurement system,
- (f) The average values over the sampling period and the average values in the case of periodical measurements of HF, HCl and SO₂ must be determined in accordance with the requirements of paragraphs 6(1)(e), 7(c), and 23.

Water emission limit values

- 29.** Emission limit values for water are to be regarded as complied with if—
- (a) for total suspended solids 95 % and 100 % of the measured values do not exceed the respective emission limit values as set out in Chapter 5,
 - (b) for heavy metals (Hg, Cd, TI, As, Pb, Cr, Cu, Ni and Zn) no more than one measurement per year exceeds the emission limit values set out in Chapter 5 or, where authorisation conditions require more than 20 samples per year, no more than 5 % of these samples exceed the emission limit values set out in Chapter 5,
 - (c) for dioxins and furans, the measurement results do not exceed the emission limit value set out in Chapter 5.”

DRAFT

SCHEDULE 14
NEW SCHEDULE 23 TO BE ADDED INTO THE 2018
REGULATIONS

Regulation 8(2)

“SCHEDULE 23
ORGANIC SOLVENT EMISSIONS ACTIVITIES

Regulation 6(3)

PART 1
Scope and Interpretation

Scope:

- 1.—(1) This schedule applies to organic solvent emissions activities,
(2) paragraph 2 applies for the interpretation of—
(a) this schedule,
(b) the definition of organic solvent emissions activities.

2.—(1) An activity listed in column 1 of table 1 is an organic solvent emissions activity if it is operated at or above the solvent consumption threshold (“SCT”) as described in column 2 of that table,

(2) an activity listed in table 1 is deemed to be operated above the solvent consumption threshold if it is likely to be operated above that threshold in any period of 12 months,

(3) an activity listed in table 1 includes the cleaning of equipment in respect of the activity but not, except for a surface cleaning activity, the cleaning of products,

(4) where an activity listed in table 1 is carried out in different parts of a stationary technical unit, or in different units on the same site, the capacities of each part or unit are added together and the total capacity attributed to each part or unit for the purpose of determining whether the activity is operated above the threshold.

Table 1

<i>Activity</i>	<i>SCT (tonnes/year)</i>
1.Heatset web offset printing	15
2. Publication rotogravure	25
3(a). Other rotogravure, flexography, rotary screen printing (other than that described in 3(b)), laminating or varnishing units	15
3(b). Rotary screen printing on textiles or cardboard	30
4. Surface cleaning using substances that are hazard statement solvent substances.	1
5. Other surface cleaning	2
6. Vehicle coating and vehicle refinishing	0.5
7. Coil coating	25
8. Other coating activities, including metal,	5

plastic, textiles (except rotary screen printing on textiles), fabric, film and paper coating	
9. Winding wire coating	5
10. Coating activity applied to wooden surfaces	15
11. Dry cleaning	0
12. Wood impregnation	25
13. Coating activity applied to leather	10
14. Footwear manufacture	5
15. Wood and plastic lamination	5
16. Adhesive coating	5
17. Manufacture of coating mixtures, varnishes, inks and adhesives	100
18. Rubber Conversion	15
19. Vegetable oil and animal fat extraction and vegetable oil refining activities	10
20. Manufacturing of pharmaceutical products	50

Interpretation: general

3.—(1) In this schedule—

“adhesive” means any mixture, including all the organic solvents or mixtures containing organic solvents necessary for its proper application, which is used to adhere separate parts of a product,

“adhesive coating” means any activity in which an adhesive is applied to a surface excluding the application of adhesive and laminating associated with printing activities,

“coating material” means any mixture, including all the organic solvents or mixtures containing organic solvents necessary for its proper application, which is used to provide a decorative, protective or other functional effect on a surface,

“coating activity” means any activity in which a single or a multiple application of a continuous film of a coating material is applied (including a step in which the same article is printed using any technique) but does not include the coating of substrate with metals by electrophoretic and chemical spraying techniques,

“coil coating” means any activity where coiled steel, stainless steel, coated steel, copper alloys or aluminium strip is coated with either a film forming or laminate coating in a continuous process,

“consumption” means the total input of organic solvents into an installation per calendar year, or any other 12-month period, less any volatile organic compounds that are recovered for re-use,

“contained conditions” means conditions under which an installation is operated so that the volatile organic compounds released from the activity are collected and discharged in a controlled way either via a stack or abatement equipment and are, therefore, not entirely fugitive,

“dry cleaning” means any industrial or commercial activity using volatile organic compounds in an installation to clean garments, furnishing and similar consumer goods excluding the manual removal of stains and spots in the textile and clothing industry,

“existing installation” means an installation in operation on 29 March 1999 or which was granted a permit or registered before 1 April 2001 or the authorised person of which submitted a complete application for a permit before 1 April 2001, provided that that installation was put in operation no later than 1 April 2002,

“flexography” means a printing activity using an image carrier of rubber or elastic photopolymers on which the printing areas are above the non-printing areas and using liquid inks which dry through evaporation,

“footwear manufacture” means any activity of producing complete footwear or parts of footwear,

“heatset web offset printing” means a web-fed printing activity using an image carrier in which the printing and non-printing area are in the same plane, where—

- (a) the non-printing area is treated to attract water and reject ink,
- (b) the printing area is treated to receive and transmit ink to the surface to be printed, and
- (c) evaporation takes place in the oven where hot air is used to heat the printed material,

“ink” means a mixture, including all the organic solvents or mixtures containing organic solvents necessary for its proper application, which is used in a printing activity to impress text or images on to a surface,

“input” means the quantity of organic solvents and their quantity in mixtures used when carrying out an activity, including the solvents recycled inside and outside the installation, and which are counted every time they are used to carry out the activity,

“laminating associated to a printing activity” means the adhering together of 2 or more flexible materials to produce laminates,

“manufacturing of coating mixtures, varnishes, inks and adhesives” means the manufacture of coating mixtures, varnishes, inks and adhesives as final products and where carried out at the same site the manufacture of intermediates, by the mixing of pigments, resins and adhesive materials with organic solvent or other carrier, including—

- (a) dispersion and pre-dispersion activities,
- (b) viscosity and tint adjustments, and
- (c) operations for filling the final product into its container,

“manufacturing of pharmaceutical products” means an activity that involves the—

- (a) chemical synthesis,
- (b) fermentation,
- (c) extraction,
- (d) formulation, or
- (e) finishing

of pharmaceutical products, and where carried out at the same site, the manufacture of intermediate products,

“mixture” means mixture as defined in Article 3(2) of Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC, 93/105/EC and 2000/21/EC(a),

“organic solvent” means any volatile organic compound which is used alone or in combination with other agents, and without undergoing a chemical change, to dissolve raw materials, products or waste materials, as a—

- (a) cleaning agent to dissolve contaminants,

(a) EUR 1907/2006 as amended by S.I. 2021/904, 2019/758 and 2019/720.

- (b) dissolver,
- (c) dispersion medium,
- (d) viscosity adjuster,
- (e) surface tension adjuster,
- (f) plasticiser,
- (g) preservative,

“other coating activities” means a coating activity applied to—

- (a) metallic and plastic surfaces, including surfaces of airplanes, ships or trains,
- (b) textiles or fabric,
- (c) film and paper surfaces,

“printing activity” means any activity (not being a step in a coating activity) for reproducing text and/or images in which, with the use of an image carrier, ink is transferred onto any type of surface, including the use of associated varnishing, coating and laminating techniques,

“publication rotogravure” means a rotogravure printing activity used for printing paper for magazines, brochures, catalogues or similar products, using toluene-based inks,

“re-use” means the use of organic solvents recovered from an installation for any technical or commercial purpose and including use as a fuel but excluding the final disposal of such recovered organic solvent as waste,

“rotary screen printing” means a web-fed printing activity in which liquid ink which dries only through evaporation is passed onto the surface to be printed by forcing it through a porous image carrier, in which the printing area is open and the non-printing area is sealed off,

“rotogravure” means a printing activity using a cylindrical image carrier in which the printing area is below the non-printing area and liquid inks which dry through evaporation in which the recesses are filled with ink and the surplus is cleaned off the non-printing area before the surface to be printed contacts the cylinder and lifts the ink from those recesses,

“rubber conversion” means—

- (a) any activity of mixing, milling, blending, calendering, extrusion and vulcanisation of natural or synthetic rubber,
- (b) any ancillary operations for converting natural or synthetic rubber into a finished product,

“start-up and shut-down operations” means operations excluding regularly oscillating activity phases whilst bringing an activity, an equipment item or a tank into or out of service or into or out of an idling state,

“surface cleaning” means any activity, other than dry cleaning or the cleaning of equipment, using organic solvents to remove contamination from the surface of material including degreasing, and a cleaning activity consisting of more than one step before or after any activity is to be considered as one surface cleaning activity,

“total emissions” means the sum of fugitive emissions and emissions in waste gases,

“varnish” means a transparent coating material,

“varnishing” means an activity by which varnish or an adhesive coating material for the purpose of sealing the packaging material is applied to a flexible material,

“vegetable oil and animal fat extraction and vegetable oil refining activities” means any activity to extract vegetable oil from seeds and other vegetable matter, the processing of dry residues to produce animal feed, the purification of fats and vegetable oils derived from seeds, vegetable matter or animal matter,

“vehicle coating” means a coating activity applied to the following vehicles—

- (a) new cars in the vehicle category M1 and N1 category vehicles if they are coated at the same installation as M1 vehicles,
- (b) truck cabins, including the housing for the driver, and all integrated housing for the technical equipment, of N2 and N3 category vehicles,
- (c) vans and trucks in the vehicle of categories M2 and M3, but not including truck cabins,
- (d) buses, in the vehicle categories M2 and M3,
- (e) trailers, in vehicle categories O1, O2, O3 and O4, but not where the activity is carried out as part of the repair, conservation or decoration of those vehicles referred to in (a) to (e) of this definition outside of manufacturing installations,
- (f) in this definition, “vehicle category” is as defined in article 4 of Regulation 2018/859 of the European Parliament and Council of 30 May 2018 on the approval and market surveillance of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles(a),

“vehicle refinishing” means any industrial or commercial coating activity and associated degreasing activities performing—

- (a) the original coating of road vehicles, or part of them with refinishing-type materials, where this is carried out away from the original manufacturing line,
- (b) the coating of trailers (including semi-trailers) in the vehicle category O,

“waste gases” means the final gaseous discharge containing volatile organic compounds or other pollutants from a stack or abatement equipment into air,

“web-fed” means that the material to be printed is fed to the machine from a reel as distinct from separate sheets,

“winding wire coating” means any coating activity of metallic conductors used for winding the coils in transformers and motors etc.,

“wood and plastic lamination” means any activity to adhere together wood or plastic to produce laminated products,

“wood impregnation” means any activity giving a loading of preservative in timber.

(2) in this schedule, “fugitive emissions” means any emissions not in waste gases of volatile organic compounds into air, soil and water as well as solvents contained in any products, unless excluded by sub-paragraph (3).

(3) fugitive emissions do not include—

- (a) in relation to heatset web offset printing, solvent residue in finished product or products,
- (b) in relation to the manufacture of coating, mixture, varnishes, inks and adhesives, solvent sold as part of a coatings mixture in a sealed container.
- (c) in relation to rubber conversion, solvent sold as part of products or mixtures in a sealed container,
- (d) in relation to the manufacture of pharmaceutical products, solvent sold as part of products or mixtures in a sealed container.

(4) in this schedule, “hazard statement solvent substance” means a substance or mixture which, is classified as a carcinogen, mutagen or as toxic to reproduction under Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending an repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006(b), where the contents include—

(a) EUR 2018/858 as amended by S.I. 2019/648 and 2022/1273.

(b) EUR 1272/2008 as amended by 2019/720.

- (a) a volatile organic compound, which is assigned or needs to carry the hazard statements H340, H350, H350i, H360D and H360F, or
- (b) a halogenated volatile organic compound, which is assigned or needs to carry the hazard statements H341 and H351.

PART 2

Amendments to Common Framework

Applications for authorisations

4. An application for an authorisation for an organic solvents emission activity must, in addition to any other requirements imposed by the Regulations, include a description of the measures which are expected to ensure that the installation is designed and equipped, and the activity will be conducted in a manner that will ensure the requirements of these Regulations are met, including—

- (a) details of any reduction scheme the authorised person intends to use and a timetable for replacing as far as possible and within the shortest possible time any hazard statement solvent substance included in paragraph 3(4)(a)(i) to be used in the activity with less harmful compounds,
- (b) for the volatile organic compounds referred in sub-paragraph 3(4)(a)(i), and the halogenated volatile organic compounds in paragraph 3(4)(a)(ii) to be used in the activity, how the emission limit values in paragraph 7 and 8 will be complied with.

Authorisation conditions: substitution of hazardous substances

5. SEPA must ensure that an authorisation for organic solvents emissions activities includes such conditions as it considers appropriate to ensure that hazard statement solvent substances in paragraph 3(4)(a)(i) are replaced, as far as possible by less harmful substances or mixtures within the shortest possible time.

Authorisation Conditions: control of emissions

6.—(1) SEPA must ensure that an authorisation for organic solvents emissions activities includes such conditions as it considers appropriate to ensure—

- (a) that the emission of volatile organic compounds from a solvents installation does not exceed—
 - (i) the emission limit values in waste gases and the fugitive emission limit values, or
 - (ii) the total emission limit values,
- (b) that the activity complies with paragraph 13 and 14 where applicable.

(2) Sub-paragraph (1) does not apply where the authorised person has satisfied SEPA that—

- (a) they have complied with the requirements of a reduction scheme set out in paragraphs 19 and 20, and
- (b) an equivalent emissions reduction has been achieved as compared to that which would have been achieved through the application of the emission limit values referred to in sub-paragraph (1)(a),

(3) Where sub-paragraph (1) does not apply as a result of sub-paragraph (2), SEPA must ensure that the authorisation for the organic solvents emissions activity includes such

conditions as it considers appropriate to ensure that an equivalent emissions reduction is achieved to that which would be achieved through the application of sub-paragraph (1),

(4) The emission limit values in sub-paragraph (1)(a) may be exceeded where, in the opinion of SEPA, in relation to a particular installation—

- (a) the emission limit value for fugitive emissions is not technically and economically feasible,
- (b) exceeding the emission limit values will not result in significant risks to human health or the environment, and
- (c) best available techniques are being used.

(5) Sub-paragraphs (1) and (2) do not apply in relation to coating activities (activity 8), where the activity cannot be carried out under contained conditions where, in the opinion of SEPA,—

- (a) compliance with the emission limits in sub-paragraph (1)(a), or meeting the requirements of (2), is not technically and economically feasible, and
- (b) best available techniques are being used.

Authorisation Conditions: control of emissions of hazard statement solvent substances

7.—(1) SEPA must ensure that an authorisation for an organic solvent emissions activity includes such conditions as it considers appropriate to ensure that emissions of hazard statement solvent substances—

- (a) are controlled under contained conditions as far as technically and economically feasible to safeguard public health and the environment, and
- (b) do not exceed emission limit values of —
 - (i) 2 mg/Nm³ where the mass flow of the mass sum of the individual hazard statement solvent substances referred to in paragraph 3(4)(a)(i) is equal to, or greater than 10 g/h,
 - (ii) 20 mg/Nm³ where the mass flow of the mass sum of the individual hazard statement solvent substances referred to in paragraph 3(4)(a)(ii) is equal to or greater than 100 g/h,

(2) the emission limit values in sub-paragraph (1)(b) refer to the mass sum of components.

Authorisation Conditions: Aggregation

8. SEPA must ensure that an authorisation for an organic solvent emission activity includes such conditions as it considers appropriate to ensure that for installations where two or more organic solvent emissions activities are carried out, each of which exceeds the thresholds in Table 1—

- (a) in relation to hazard statement solvent substances specified in paragraph 7, the requirements of that paragraph are met for each activity individually,
- (b) in relation to all other substances—
 - (i) the requirements of paragraph 6 are met for each activity individually, or
 - (ii) the total emissions of volatile organic compounds do not exceed those which would have resulted had sub-paragraph (a) not been applied.

Authorisation Conditions: Start-up and Shut-down

9. SEPA must ensure that an authorisation for an organic solvent emissions activity includes such conditions as it considers appropriate to ensure that all appropriate precautions are taken to minimise emissions of volatile organic compounds during start-up and shut-down operations.

Authorisation Conditions: Monitoring of emissions

10.—(1) SEPA must ensure that an authorisation for an organic solvent emission activity includes such conditions as it considers appropriate to ensure that measurements of emissions are carried out in accordance with the requirements in sub-paragraph (2),

(2) the requirements are that —

- (a) continuous monitoring for compliance of the waste gas emissions is required where—
 - (i) abatement equipment is connected prior to the final point of discharge, and
 - (ii) the final discharge contains more than an average of 10 kg/h of total organic carbon,
- (b) in cases other than that in sub-paragraph (a)—
 - (i) monitoring may be continuous or periodic,
 - (ii) where monitoring is periodic, at least three measurement values are to be obtained during each measurement exercise,
- (c) measurements are not required where end-of-pipe abatement is not needed to comply with schedules 19 or 23.

Compliance: Emissions

11. SEPA must regard emission limit values in waste gases as having been complied with where—

- (a) In the case of continuous measurements—
 - (i) none of the arithmetic averages of all valid readings taken during any 24-hour period of operation of an installation or activity except start-up and shut-down operations and maintenance of equipment exceeds the emission limit values,
 - (ii) none of the hourly averages exceeds the emission limit values by more than a factor of 1.5,
- (b) In the case of periodic measurements if, in one monitoring exercise—
 - (i) the average of all the measurement values does not exceed the emission limit values,
 - (ii) none of the hourly averages exceeds the emission limit value by more than a factor of 1.5,
- (c) Compliance with conditions imposed under paragraph 7 are to be verified on the basis of the sum of the mass concentrations of the individual volatile organic compounds concerned.
- (d) For all other cases, compliance is to be verified on the basis of the total mass of organic carbon emitted unless otherwise specified in paragraph 13,
- (e) Gas volumes may be added to the waste gas for cooling or dilution purposes where technically justified but is not to be considered when determining the mass concentration of the pollutant in the waste gas.

Compliance: collection and reporting of data

12.—(1) In order to verify compliance, SEPA must ensure that an authorisation for an organic solvent emissions activity includes such conditions as it considers necessary to ensure that the following records are kept—

- (a) emission limit values in waste gases, fugitive emission limit values, and total emission limit values,
- (b) the requirements of the reduction scheme under paragraphs 19 and 20,
- (c) any exemptions granted in accordance with paragraph 6(4) and (5),

(d) if applicable, a solvent management plan prepared in accordance with paragraphs 16 to 18.

(2) Records referred to sub-paragraph (1) are to be kept for a period of 6 years.

Compliance: emission limit values

13.—(1) Emission limit values for solvent emissions activities are to be determined in accordance with Table 2—

Table 2

<i>Activity</i>	<i>Threshold (solvent consumption threshold in tonnes/year)</i>	<i>Emission limit values in waste gases (mg C/Nm³)</i>	<i>Fugitive emission limit values (percentage of solvent input)</i>	<i>Total Emission Limit Values</i>
1.Heatset web offset printing	1. 15 -25 2. >25	1. 100 2. 20	1. 30 2. 30	
2. Publication rotogravure		75	New installations: 10 Existing: 15	
3(a). Other rotogravure, flexography, rotary screen printing (other than that described in 3(b)), laminating or varnishing units	1. 15-25 2. >25	1. 100 2. 100	1. 25 2. 20	
3(b). Rotary screen printing on textiles or cardboard	1. >30	100	20	
4. Surface cleaning using substances that are hazard statement solvent substances.	1. 1-5 2. >5	1. 20 2. 20 ⁽¹⁾	1. 15 2. 10	
5. Other surface cleaning ⁽²⁾	1. 2-10 2. >10	1. 75 2. 75	1. 20 2. 15	
6. Vehicle coating (<15) and vehicle refinishing	>0.5	50 ⁽³⁾	25	
7. Coil coating		1. Installations using techniques allowing the reuse of recovered solvents: 150	New installations: 5 Existing installations: 10	

		2. All other installations: 50		
8. Other coating activities, including metal, plastic, textiles (except rotary screen printing on textiles), fabric, film and paper coating ⁽⁴⁾	1. 5-15 2. >15	1. 100 (coating application and drying processes operated under contained conditions) 2. 50 (drying) 75 (coating application processes)	1. 25 2. 20	
		Textile coating installations which use techniques which allow reuse of recovered solvents: 150		
9. Winding wire coating				Installations where diameter of wire ≤ 0.1 mm: 10 g/kg All other installations: 5 g/kg
10. Coating activity applied to wooden surfaces	1. 15 -25 2. >25	1. 100 (coating application and drying processes under contained conditions) 2. Drying processes: 50 Coating processes: 75	1. 25 2. 20	
11. Dry cleaning ⁽⁵⁾				Mass of solvent emitted per kilogram of product cleaned and dried: 20 g/kg Paragraph 7(2)(b) does not apply to this activity.
12. Wood impregnation		100 ⁽⁶⁾	45	11 kg/m ³

13. Coating activity applied to leather	1. 10-25 2. > 25 3. >10 (for leather coating activities in furnishing and particular leather goods used as small consumer goods)				1. 85 g/m ² 2. 75 g/m ² 3. 150 g/m ²
14. Footwear manufacture					25 g per pair
15. Wood and plastic lamination				30 g/m ²	
16. Adhesive coating	1. 5-15 2. >15	1. 50 2. 50	1. 25 2. 20		
		For both: 150 where techniques are used which allow reuse of recovered solvent.			
17. Manufacture of coating mixtures, varnishes, inks and adhesives	1. 100-1000 2. >1000	1. 150 2. 150	1. 5 2. 3		1. 5% of solvent input 2. 3% of solvent input
18. Rubber Conversion		20		25	25% of solvent input
		Where techniques are used which allow reuse of recovered solvent: 150			
19. Vegetable oil and animal fat extraction and vegetable oil refining activities					1. Animal fat: 1.5 kg/tonne 2. Castor: 3 kg/tonne 3. Rape seed: 1 kg/tonne 4. Sunflower seed: 1 kg/tonne 5. Soya beans (normal crush): 0.8 kg/tonne 6. Soya beans (white flakes): 1.2 kg/tonne 7. Other seeds and other vegetable

			matter: 3 kg/tonne ⁽⁷⁾
			8. Fractionation processes excluding de- gumming (the removal of gums from the oils): 1.5 kg/tonne
			9. De- gumming: 4 kg/tonne
20. Manufacturing of pharmaceutical products	20 If techniques are used which allow reused of recovered solvent: 150	New installations: 5 Existing installations: 15	New installations: 5% of solvent input Existing installations: 15 % of solvent input

- ⁽¹⁾ Emission limit values (1) and (2) refer to mass of compounds in mg/Nm³ and not to total carbon.
- ⁽²⁾ Installations which demonstrate to SEPA that the average organic solvent content of all cleaning material used does not exceed 30% by weight are exempt from application of the emission limit values for this activity.
- ⁽³⁾ Compliance with paragraph 9(2) is to be demonstrated based on 15 minute average measurements.
- ⁽⁴⁾ Coating activities which cannot be carried out under contained conditions (e.g., shipbuilding, aircraft painting) may be exempt from the emission limit values for this activity.
- ⁽⁵⁾ The emission limit values in paragraph 7(2)(b) do not apply to this activity.
- ⁽⁶⁾ Does not apply for impregnation with creosote.
- ⁽⁷⁾ Total emission limit values for installations processing individual batches of seeds and other vegetable matter are to be determined by SEPA on a case-by-case basis applying the best available techniques.

(2) all emission limit values in waste gases are to be calculated at a temperature of 273.15K and a pressure of 101.3kPA.

Emission limit values: vehicle coating industry

14.—(1) Emission limit values for installations in the vehicle coating industry are to be calculated in accordance with this paragraph.

(2) Total emission limit values are expressed in terms of grams of organic solvent emitted in relation to the surface area of product in square metres and in kilograms of organic solvent emitted in relation to the car body.

(3) The surface area of any product included in Table 3 is defined as the surface area calculated from the total electrophoretic coating area, and the surface area of any parts that might be added in successive phases of the coating process which are coated with the same coatings as those used for the product in question, or the total surface area of the product coated in the installation.

(4) The surface of the electrophoretic coating area is calculated using the following formula:

$$\frac{2 \times \text{total weight of product shell}}{\text{average thickness of metal sheet} \times \text{density of metal sheet}}$$

(5) The method in sub-paragraph (4) is to be applied for other coated parts made out of sheets.

(6) Computer aided design or other equivalent methods are to be used to calculate the surface area of the other parts added, or the total surface area coated in the installation.

(7) The total emission limit values in table 3 below refer to all process stages carried out at the same installation from electrophoretic coating, or any other kind of coating process, through to the final wax and polish of top-coating inclusive, as well as solvent used in cleaning of process equipment, including spray booths and other fixed equipment, both during and outside of production time.

(8) Vehicle coating installations below the solvent consumption thresholds mentioned in table 3 must meet the requirements for the vehicle refinishing sector set out in table 2—

Table 3

<i>Activity (solvent consumption threshold in tonnes/year)</i>	<i>Production threshold (refers to annual production of coated item)</i>	<i>Total Emission</i>	<i>Limit Value</i>
		<i>New installations</i>	<i>Existing installations</i>
Coating of new cars (>15)	>5000	45 g/m ² or 1.3 kg/body + 33 g/m ²	60 g/m ² or 1/9 kg/body + 41 g/m ²
	≤ 5000 monocoque or > 3500 chassis-built	90 g/m ² or 1.5 kg/body + 70 g/m ²	90 g/m ² or 1.5 kg/body + 41 g/m ²
		Total emission limit	Value (g/m ²)
Coating of new truck cabins (>15)	≤ 5000	65	85
	>5000	55	75
Coating of new vans and trucks (>15)	≤ 2500	90	120
	<2500	70	90
Coating of new Buses (>15)	≤ 2000	210	290
	>2000	150	225

Authorisations: substantial change

15.—(1) A substantial change cannot be made in the absence of an authorisation variation,

(2) Where a solvents installation has obtained an authorisation variation required as a result of a substantial change, SEPA must confirm compliance of the installation with the requirements of the Regulations by means of an environmental inspection.

PART 3

Solvent management plans and reduction schemes

Solvent management plans: principles

16.—(1) A solvent management plan is to be used to—

- (a) verify compliance in accordance with paragraph 11 and 13,
- (b) identify future reduction options,
- (c) enable the provision of information on solvent consumption, solvent emissions and compliance with the requirements of this schedule to the public,

(2) SEPA must ensure that authorisations for organic solvents activities contain conditions as it considers appropriate to ensure that a solvent management plan is used in accordance with the principles in sub-paragraph (1).

Solvent management plans: interpretation

17. For the purposes of this Part—

(a) In relation to inputs of organic solvents (I)—

“I1” refers to the quantity of organic solvents or their quantity in mixtures purchased which are used as input into the process in the time frame over which the mass balance is being calculated.

“I2” refers to the quantity of organic solvents or their quantity in mixtures recovered and reused as solvent input into the process. The recycled solvent is counted every time it is used to carry out the activity.

(b) In relation to outputs of organic solvents (O)—

“O1” refers to emissions in waste gases,

“O2” refers to organic solvents lost in water, taking into account wastewater treatment when calculating O5.

“O3” refers to the quantity of organic solvents which remains as contamination or residue in products output from the process.

“O4” refers to uncaptured emissions of organic solvents into air. This includes the general ventilation of rooms, where air is released to the outside environment via windows, doors, vents and similar openings.

“O5” refers to organic solvents and/or organic compounds lost due to chemical or physical reactions (including those which are destroyed, by incineration or other waste gas or wastewater treatments, or captured, as long as they are not counted under O6, O7 or O8),

“O6” refers to organic solvents contained in collected waste,

“O7” refers to organic solvents, or organic solvents contained in mixtures, which are sold or are intended to be sold as a commercially valuable product,

“O8” refers to organic solvents contained in mixtures recovered for reuse but not as input into the process, as long as not counted under O7,

“O9” refers to organic solvents released in other ways.

Use of Solvent management plans for verification of compliance

18.—(1) The use made of a solvent management plan is to be determined by the particular requirement that is to be verified in accordance with this paragraph,

(2) the verification of compliance with a reduction scheme as set out in paragraphs 19 and 20, with a total emission limit value expressed in solvent emissions per unit product, or as otherwise stated in paragraphs 13 and 14, is as stated in this sub-paragraph,

(a) for all activities using the reduction scheme set out in paragraphs 19 and 20—

(i) the solvent management plan must be drawn up annually to determine the consumption (C),

(ii) consumption (C) is to be calculated according to the following equation—

$$C = I1 - O8,$$

(iii) a parallel exercise must also be undertaken to determine solids used in coating to derive the annual reference emission and the target emission each year,

(b) for assessing compliance with a total emission limit value expressed in solvent emissions per unit product or otherwise stated in paragraphs 13 and 14—

- (i) the solvent emission plan must be drawn up annually to determine the emissions (E),
 - (ii) emissions (E) are to be calculated according to the following equation—

$$E = F + O1,$$
 - (iii) F refers to fugitive emissions,
 - (iv) the emission figure must then be divided by the relevant product parameter.
- (c) for assessing compliance with the requirements of paragraphs 6 and 7, the solvent management plan must be drawn up annually to determine total emissions from all activities concerned, and that figure is then to be compared with the total emissions that would have resulted had the requirements of paragraphs 13, 14, 19 and 20 been met for each activity separately.
- (3) the determination of fugitive emissions for comparison with the fugitive emission limit values in paragraph 13 is as stated in this sub-paragraph—
- (a) fugitive emissions are to be calculated by one of the following equations—
 - (i) $F = I1 - O1 - O5 - O6 - O7 - O8,$
 - (ii) $F = O2 + O3 + O4 + O9,$
 - (iii) F is to be determined by direct measurement of the quantities or by an equivalent method or calculation such as using the capture efficiency of the process,
 - (iv) fugitive emission limit value is expressed as a proportion of the input which is to be calculated by the following equation—

$$I = I1 + I2,$$
 - (b) determination of fugitive emissions is to be done by a short but comprehensive set of measurements and does not need to be done again unless equipment is modified.

Reduction Schemes: authorisation

19. SEPA may authorise by way of appropriate conditions any reduction scheme specially designed for a solvents installation.

Reductions Schemes: principles and requirements

20.—(1) A reduction scheme for applying coatings, varnishes, adhesives or inks must take the following into account—

- (a) where substitutes containing little or no solvent are still under development, a time extension must be granted to the authorised person to implement the emission reduction plans,
 - (b) the reference point for emission reductions should correspond as closely as possible to the emissions which would have resulted had no reduction action been taken.
- (2) The reduction scheme for installations for which a constant solid content of product can be assumed is as follows—
- (a) The annual reference emission is calculated as follows—
 - (i) the total mass of solids in the quantity of coating and/or ink, varnish or adhesive consumed in a year is determined,
 - (ii) for the purposes of sub-paragraph (i), solids are all materials in coatings, inks, varnishes and adhesives that become solid once the water or the volatile organic compounds are evaporated,
 - (iii) The annual reference emissions are calculated by multiplying the mass determined in (i) by the appropriate factor listed in Table 4 below,

- (iv) SEPA may adjust these factors for individual installations to reflect documented increased efficiency in the use of solids,

Table 4

<i>Activity</i>	<i>Multiplication factor for use in sub-paragraph (2)(a)(iii)</i>
Rotogravure printing, flexography printing, laminating as part of a printing activity, varnishing as part of a printing activity, wood coating, coating of textiles, fabric film or paper, adhesive coating	4
Coil coating, vehicle refinishing	3
Food contact coating, aerospace coatings	2.33
Other coatings and rotary screen printing	1.5

- (b) the target emission is equal to the annual reference emission multiplied by a percentage equal to—
- (i) (the fugitive emission limit value + 15), for installations falling within item 6 and the lower threshold band of items 8 and 10 in Table 2,
 - (ii) (the fugitive emission limit value + 5) for all other installations,
- (c) compliance is achieved if the actual solvent emission determined from the solvent management plan is less than or equal to the target emission.”

(3) SEPA may authorise by way of appropriate conditions an alternative scheme to that set out in sub-paragraph (4) provided that it will result in equivalent emission reductions to those that would have achieved with by the application of the emission limit values in paragraphs 13 or 14.”

SCHEDULE 15
NEW SCHEDULE 24 TO BE ADDED INTO THE 2018
REGULATIONS

Regulation 8(2)

“SCHEDULE 24
TITANIUM DIOXIDE ACTIVITIES

Regulation 6(3)

PART 1

Scope and Interpretation

Scope and interpretation

- 1.—(1) This schedule applies to titanium dioxide activities,
- (2) A “titanium dioxide activity” means—
 - (a) a schedule 20 activity producing titanium dioxide,
 - (b) an organic solvent activity producing titanium dioxide.

PART 2

Amendments to the Common Framework

Authorisation Conditions: Disposal of Waste

- 2.—(1) SEPA must ensure that an authorisation for a titanium dioxide activity includes such conditions as it considers appropriate to ensure the prohibition of the disposal into any water body, sea or ocean any of the waste referred to in sub-paragraph (2)
- (2)
 - (a) solid waste,
 - (b) the mother liquors arising from the filtration phase following hydrolysis of the titanyl sulphate solution from installations applying the sulphate process, including, but not limited to—
 - (i) the acid waste associated with such liquors, containing overall more than 0.5 % free sulphuric acid and various heavy metals, and
 - (ii) mother liquors which have been diluted until they contain 0.5 % or less free sulphuric acid,
 - (c) waste from installations applying the chloride process containing more than 0.5 % free hydrochloric acid and various heavy metals, including such waste which has been diluted until it contains 0.5 % or less free hydrochloric acid,
 - (d) filtration salts, sludges and liquid waste arising from the treatment (concentration or neutralisation) of the waste mentioned under sub-paragraphs (b) and (c) and containing various heavy metals, but not including neutralised and filtered or decanted waste containing only traces of heavy metals and which, before any dilution, has a pH value above 5.5.

Emissions: Water

3.—(1) SEPA must ensure that an authorisation for a titanium dioxide activity includes such conditions as it considers appropriate to ensure that emissions into water from installations do not exceed the emission limit values set out in this paragraph,

(2) emissions from installations using the sulphate process, as an annual average, must not exceed 550 kilograms of sulphate per tonne of titanium dioxide produced,

(3) emissions from installations using the chloride process, as an annual average must not exceed—

- (a) 130 kilograms of chloride per tonne of titanium dioxide produced using neutral rutile,
- (b) 228 kilograms of chloride per tonne of titanium dioxide produced using synthetic rutile,
- (c) 330 kilograms of chloride per tonne of titanium dioxide produced using slag unless sub-paragraph (d) applies,
- (d) this sub-paragraph applies where installations discharge waste into salt water (estuarine, coastal, open sea)
- (e) where sub-paragraph (d) applies, installations may be subject to an emission limit value of 450 kilograms of chloride per tonne of titanium dioxide produced using slag.

(4) for installations using—

- (a) the chloride process, and
- (b) more than one type of ore,

the emissions limit values in sub-paragraph (3) apply in proportion to the quantity of ores used.

Emissions: Air

4.—(1) SEPA must ensure that an authorisation for a titanium dioxide activity includes such conditions as it considers appropriate to ensure—

- (a) the prevention of the emission of acid droplets from installations,
- (b) that emissions into air from installations do not exceed the emission limit values set out in sub-paragraphs (2) – (5).

(2) Emissions for dust must not exceed—

- (a) 50 mg/Nm³ as an hourly average from major sources,
- (b) 150 mg/Nm³ as an hourly average from any other source.

(3) Emissions for gaseous sulphur dioxide and trioxide discharged from digestion and calcination—

- (a) 6 kilograms per tonne of titanium dioxide produced as an annual average,
- (b) 500 mg/Nm³ as an hourly average for plants for the concentration of waste acid.

(4) The emission limit values in sub-paragraph (3) include acid droplets calculated as a sulphur dioxide equivalent.

(5) Emissions for chlorine in the case of installations using the chloride process must not exceed—

- (a) 5 mg/Nm³ as a daily average,
- (b) 40 mg/Nm³ at any time.

(6) Emissions limit values in this paragraph expressed in mass per cubic meter (Nm³) are to be calculated at a temperature of 273.15 K and a pressure of 101.3 kPa.

Emissions: Monitoring and Compliance

5. SEPA must ensure that an authorisation for a titanium dioxide activity includes such conditions as it considers appropriate to ensure—

- (a) the monitoring to verify compliance with permit conditions of —
 - (i) emissions into water
 - (ii) emissions into air
- (b) the reporting of the resulting of monitoring referred to in sub-paragraph (a),
- (c) that the monitoring conditions referred to in sub-paragraph (a) includes continuous monitoring into air of —
 - (i) gaseous sulphur dioxide and trioxide discharged from digestion and calcination from plants for the concentration of waste acid in installations using the sulphate process,
 - (ii) chlorine from major sources within installations using the chloride process,
 - (iii) dust from major sources.
- (d) that monitoring is carried out in accordance with—
 - (i) relevant British or CEN standards, or
 - (ii) where relevant British or CEN standards are not available, ISO or other international standards which ensure the provisions of data or an equivalent scientific quality.”

SCHEDULE 16

Regulation 8(2)

NEW SCHEDULE 25 TO BE ADDED INTO THE 2018 REGULATIONS

“SCHEDULE 25

Regulation 6(3)

ENERGY EFFICIENCY REQUIREMENTS FOR SPECIFIED ACTIVITIES

PART 1

Scope and Interpretation

Scope and interpretation

- 1.—(1) This schedule applies to a specified activity.
(2) Paragraphs 2 and 3 apply for the interpretation of—
 - (a) this schedule,
 - (b) the definition of a specified activity.

- 2.—(1) A “specified activity” means an activity—
 - (a) first carried on, or carried on at a plant or installation that was substantially refurbished, after 30 October 2014, and
 - (b) included in and meeting the condition in sub-paragraph (2), or included in sub-paragraph (3), subject to the exceptions in paragraph 3,(2) (a) the activities are—
 - (i) operating a large combustion plant,
 - (ii) waste incineration or waste co-incineration at waste incineration or waste co-incineration plant,
 - (iii) operating a medium combustion plant,
 - (iv) burning any fuel in combustion plants which generate electricity on the same site with an aggregated rated thermal input of 1 MW or more as described in paragraph 1 of Chapter 1 of Part 3 of schedule 26,(b) the condition is that the activity in sub-paragraph (a) must generate electricity and have a rated thermal input exceeding 20MW,
(3) an industrial emissions activity or other emissions activity with a rated thermal input exceeding 20 MW, which—
 - (a) generates waste heat at a useful temperature level, or
 - (b) forms part of a new or existing district heating or cooling network.

- 3.—(1) A specified activity does not include—

- (a) peak load and back-up electricity generating installations which operate or are planned to operate under 1,500 operating hours per year as a rolling average over a period of five years,
- (b) installations that need to be located close to a geological storage site for which a licence has been granted under section 18 of the Energy Act 2008
- (c) except where the installation or plant forms part of a new or existing district heating and cooling network, the activities in paragraph 2(3) carried on at an individual installation or plant, with any of the following —
 - (i) available waste heat of 100 kilowatts or less,
 - (ii) available waste heat—
 - (aa) greater than 100 kilowatts as hot water or steam, where there is no hot water heat demand greater than 100 kilowatts within the search radius from the source installation as set out in Table 1, located within the connection distance from the centre of the source installation, or
 - (bb) greater than 500 kilowatts as steam where there is no steam-based heat demand greater than 500 kilowatts within the search radius from the centre of the installation as set out in Table 1, located within the connection distance from the centre of the source installation,
 - (iii) a heat demand of—
 - (aa) 100 kilowatts or less for a hot water heat demand,
 - (bb) 500 kilowatts or less for a steam-based heat demand,
 - (iv) a hot water heat demand greater than 100 kilowatts, with no source of available waste heat greater than 100 kilowatts within the search radius from the centre of the demand installation as set out in Table 1, located within the connection distance from the centre of the demand installation, or
 - (v) a steam-based heat demand greater than 500 kilowatts, with no source of steam-based waste heat greater than 500 kilowatts within the search radius from the centre of the installation as set out in Table 1, located within the connection distance from the centre of the demand installation,

(d) For the purposes of this paragraph—

“connection distance” means—

- (a) in the case of a hot water link, the thermal capacity in kilowatts of the source or demand, which is smaller, multiplied by 0.0038,
- (b) in the case of steam heat link, the thermal capacity in kilowatts of the source or demand, which is smaller, multiplied by 0.0012,

expressed in kilometres,

“refurbishment” does not include the fitting of equipment to capture carbon dioxide produced by a combustion installation for the purposes of geological storage,

“substantially refurbished” means a refurbishment whose cost exceeds 50% of the investment cost for a new comparable unit.

TABLE 1: Search Radius

<i>Installation type</i>	<i>Thermal Capacity of heat source/demand</i>	<i>Search radius (kilometres), measured from the centre of the installation</i>
Hot water demand	>100 kilowatts and <3.9 megawatts ≥3.9 megawatts	0.0038 x H, where H = thermal capacity in kilowatts 15
Steam demand	>500 kilowatts and <12.5 megawatts	0.0012 x H, where H = thermal capacity in kilowatts

	≥ 12.5 megawatts	15
Waste heat source (hot water or steam)	>100 kilowatts and <3.9 megawatts	$0.0038 \times H =$ thermal capacity in kilowatts
	≥ 3.9 megawatts	15

(3) Where this schedule does not apply to an activity as a result of sub-paragraph (1)(a) or (2), SEPA must take appropriate steps to verify that the exemption criteria are met.

Interpretation: general

4. In this schedule—

“cogeneration” means the simultaneous generation in one process of thermal energy and electrical or mechanical energy,

“cost-benefit analysis” means a cost-benefit analysis carried out in accordance with paragraph 7,

“economically justifiable demand” means demand that does not exceed the needs for heating or cooling and which would otherwise be satisfied at market conditions by energy generation processes other than cogeneration,

“unit” means any boilers, furnaces, turbines or compression ignition engines forming part of an installation which added together have a rated thermal input of more than 20 megawatts.

Interpretation: high-efficiency cogeneration

5. In this schedule, “high efficiency cogeneration” means cogeneration meeting the criteria in sub-paragraph (a) whilst using one the cogeneration technologies in sub-paragraph (b),

(a) the criteria are—

(i) cogeneration production from cogeneration units must provide primary energy savings calculated in accordance with paragraphs 10 and 11 of at least 10% compared with the references for separate production of heat and electricity, or

(ii) production from small-scale and micro-cogeneration units providing primary energy savings where SEPA determines that they qualify as high-efficiency cogeneration,

(b) the cogeneration technologies are—

(i) combined cycle gas turbine with heat recovery,

(ii) steam back pressure turbine,

(iii) steam condensing extraction turbine,

(iv) gas turbine with heat recovery,

(v) internal combustion engine,

(vi) microturbines,

(vii) stirling engines,

(viii) fuel cells,

(ix) steam engines,

(x) organic Rankine cycles,

(xi) any other types of technology or combination of technologies comprising cogeneration.

PART 2

Amendment of the Common Framework

Cost-benefit analysis

6.—(1) An application for an authorisation for a specified activity must include a cost-benefit analysis unless sub-paragraph (2) applies.

(2) This sub-paragraph applies where a cost-benefit analysis conducted on a national basis has demonstrated that a site-specific cost-benefit analysis is unlikely to be positive.

(3) The cost-benefit analysis must be carried out in accordance with paragraph 7 and must—

- (a) in the case of a specified activity included in paragraph 2(2), assess the costs and benefits of operating the installation or converting the installation to operate as a high-efficiency cogeneration installation,
- (b) in the case of a specified activity included in paragraph 2(3) at an installation or plant which forms part of a new or existing district heating and cooling network, assess the costs and benefits of utilising the waste heat from nearby industrial installations,
- (c) in the case of a specified activity included in paragraph 2(3) generating waste heat at a useful temperature, assess the costs and benefits of utilising the waste heat to satisfy economically justifiable demand, including through cogeneration, and of the connection of that installation to a district heating and cooling network.

(4) A cost-benefit analysis may be prepared cooperatively by the authorised person for the specified activity and the operator of the heating and cooling network.

(5) SEPA may require, by notice, that the cost-benefit analysis be prepared cooperatively with the operator of the heating and cooling network.

Cost-benefit analysis: principles

7. SEPA must ensure that a cost-benefit analysis under this schedule is conducted in accordance with the following principles—

- (a) where an electricity-only installation or plant, or an installation or plant without heat recovery is planned, a comparison must be made between the planned installations or plants, or the planned refurbishment and an equivalent installation or plant producing the same amount of electricity or process heat but recovering the waste heat and supplying heat through high-efficiency cogeneration and/or district heating and cooling networks,
- (b) within a given geographical boundary the assessment must take into account the planned installation or plant and any appropriate existing or potential heat demand points that could be supplied from it, taking into account rational possibilities (for example, technical feasibility and distance),
- (c) the system boundary set must include the planned installation or plant and the heat loads, such as building(s) and industrial process, within this system boundary the total cost of providing heat and power must be determined for both cases and compared,
- (d) heat loads must include existing heat loads, such as an existing installation or plant, or an existing district heating system, and also, in urban areas, the heat load and costs that would exist if a group of buildings or part of a city were provided with and/or connected into a new district heating network,
- (e) the cost-benefit analysis is based on a description of the planned installation or plant and the comparison installation(s) or plants, covering electrical and thermal

capacity, as applicable, fuel type, planned usage and the number of planned operating hours annually, location and electricity and thermal demand,

- (f) for the purpose of the comparison, the thermal energy demand and the types of heating and cooling used by the nearby heat demand points must be taken into account, the comparison must cover infrastructure related costs for the planned and comparison installation or plant,
- (g) cost-benefit analyses must include an economic analysis covering a financial analysis reflecting actual cash flow transactions from investing in and operating individual installations or plants,
- (h) projects with positive cost-benefit outcome are those where the sum of discounted benefits in the economic and financial analysis exceeds the sum of discounted costs (cost-benefit surplus).
- (i) SEPA must set guiding principles for the methodology, assumptions and time horizon for the economic analysis.

Determination of Applications

8.—(1) When considering an application for an authorisation, or a variation of an authorisation for a specified activity, SEPA must take into account—

- (a) the outcome of the cost-benefit analysis required by paragraph 6,
- (b) from 31st December 2015, the outcome of any comprehensive national assessment carried out in compliance with Article 14(1) of Directive 2012/27/EU of the European Parliament and of the Council on energy efficiency^(a).

(2) Where a cost-benefit analysis required in the case referred to in paragraph 6(4)(a) or (c) shows that benefits exceed costs, SEPA must ensure that the authorisation includes conditions that will ensure the carrying on of the specified activity in a manner shown by that analysis to be cost beneficial.

(3) Where a cost-benefit analysis required in the case referred to in paragraph 6(4)(b) shows that benefits exceed costs, SEPA must ensure that the authorisation includes conditions that will ensure the carrying on of the specified activity of the installation, in conjunction with the utilisation of the waste heat from nearby industrial installations or plants, in a manner shown by that analysis to be cost beneficial.

(4) Sub-paragraphs (2) and (3) do not apply if SEPA decides that there are imperative reasons of law, ownership or finance for them not to apply in respect of any application for or variation to an authorisation.

(5) SEPA must, in any case where it makes a decision in accordance with sub-paragraph (4), submit a reasoned notification of it to the Scottish Ministers within two months after the date of the decision.

General principles for the calculation of electricity from cogeneration

9.—(1) Values used for the calculation of efficiency of cogeneration and primary energy savings for units other than micro-cogeneration units are to be determined on the basis of the expected or actual operation of the unit under normal conditions of use.

(2) For micro-cogeneration units the calculation may be based on certified values.

(3) Electricity production from cogeneration is to be considered equal to total annual electricity production of the unit measured at the outlet of the main generators for—

- (a) high efficiency cogeneration units falling under sub-heads (ii), (iv), (v), (vi), (vii) and (viii) in paragraph 5(b) with an annual overall efficiency of at least 75%,

(a) OJ L 315, 14.11.2012 as amended.

- (b) high efficiency cogeneration units falling under sub-heads (i) and (c) of sub-paragraph 5(b) with an annual overall efficiency of at least 80 %,
- (4) for cogeneration units with an annual overall efficiency below that specified in sub-paragraph (3), cogeneration is to be calculated according to the following—

$$E_{\text{CHP}} = H_{\text{CHP}} * C$$

- (5) In paragraph (4)—
- (a) E_{CHP} is the amount of electricity from cogeneration,
- (b) C is the power to heat ratio,
- (c) H_{CHP} is the amount of useful heat from cogeneration, calculated for this purpose as total heat production minus any heat produced in separate boilers or by live steam extraction from the steam generator before the turbine.

(6) Where actual power to heat ratio is not known for the high efficiency cogeneration units listed in Table 2, the default power to heat ratio values in Table 2 may be used where the calculated cogeneration electricity is less or equal to total electricity production of the unit—

Table 2

<i>Type of Unit</i>	<i>Default power to heat ration, C</i>
Combined cycle gas turbine with heat Recovery	0.95
Steam back pressure turbine	0.45
Steam condensing extraction turbine	0.45
Gas turbine with heat recovery	0.55
Internal combustion engine	0.75

(7) Where a share of the energy content of the fuel input to the cogeneration process is recovered in chemicals and recycled this share can be subtracted from the fuel input before calculating overall efficiency in sub-paragraphs (3) and (4),

(8) SEPA may determine the power to heat ratio as the ratio of electricity to useful heat when operating in cogeneration mode at a lower capacity using operational data of the specific unit,

(9) SEPA may use reporting periods other than annually for the purpose of calculating overall efficiency in sub-paragraphs (3) and (4).

Determining the efficiency of the cogeneration process

10.—(1) Values used for calculation of efficiency of cogeneration and primary energy savings are to be determined on the basis of the expected or actual operation of the unit under normal conditions of use,

(2) For the purposes of this schedule, high-efficiency co-generation must fulfil the following criteria—

- (a) cogeneration production from cogeneration units must provide primary energy savings calculated according to sub-paragraph (3) of at least 10% compared with the references for separate production of heat and electricity,
- (b) production from small-scale and micro-cogeneration units providing primary energy savings may qualify as high-efficiency cogeneration where SEPA determines that they qualify as high-efficiency cogeneration,

(3) Calculation of primary energy savings provided by cogeneration production other than by micro-cogeneration units, is to be calculated on the basis of the following formula—

$$\text{PES} = \left(1 - \frac{1}{\frac{\text{CHPH}_\eta}{\text{RefH}_\eta} + \frac{\text{CHPE}_\eta}{\text{RefE}_\eta}} \right) \times 100\%$$

(4) In sub-paragraph (3)—

“PES” is primary energy savings,

“CHP H_η” is the heat efficiency of the cogeneration production defined as annual useful heat output divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration,

“Ref H_η” is the efficiency reference value for separate heat production,

“CHP E_η” is the electrical efficiency of the cogeneration production defined as annual electricity from cogeneration divided by the fuel input used to produce the sum of useful heat output and electricity from cogeneration. Where a cogeneration unit generates mechanical energy, the annual electricity from cogeneration may be increased by an additional element representing the amount of electricity, which is equivalent to that of mechanical energy,

“Ref E_η” is the efficiency reference value for separate electricity production.

(5) SEPA use reporting periods other than annually for the purpose of the calculation in sub-paragraph (3),

(6) calculation of primary energy savings for micro-cogeneration units the calculation of primary energy savings may be based on certified data

Calculation of efficiency reference values

11.—(1) SEPA must determine harmonised efficiency reference values as a matrix of values differentiated by relevant factors and taking into account the principles in sub-paragraph (3),

(2) The efficiency reference values for separate production of heat and electricity in accordance with the formula in paragraph (3) must establish the operating efficiency of the separate heat and electricity production that cogeneration is intended to substitute,

(3) Efficiency reference values are to be calculated according to the following principles—

- (a) for cogeneration units the comparison with separate electricity production is to be based on the principle that the same fuel categories are compared,
- (b) each cogeneration unit is to be compared with the best available and economically justifiable technology for separate production of heat and electricity on the market in the year of construction of the cogeneration unit,
- (c) the efficiency reference values for cogeneration units older than 10 years of age are to be fixed on the reference values of units of 10 years of age,
- (d) the efficiency reference values for separate electricity production and heat production are to take into account the Scottish climate.”

SCHEDULE 17 Regulation 8(2)
NEW SCHEDULE 26 TO BE INSERTED INTO THE 2018
REGULATIONS

“SCHEDULE 26 Regulation 6(3)
OTHER EMISSIONS ACTIVITIES

PART 1

Scope and Interpretation

Scope and Interpretation

- 1.—(1) This schedule applies to other emissions activities
(2) this paragraph applies for the interpretation of—
- (a) this schedule,
 - (b) schedule 27,
 - (c) schedule 28,
 - (d) the definition of other emissions activities,
- (3) “other emissions activities” means, subject to the exceptions in sub-paragraph (4)—
- (a) an activity listed in Part 3 (Part 3 activities),
 - (b) operating a medium combustion plant,
 - (c) a petrol vapour recovery activity,
- (4) The exceptions are—
- (a) where an activity listed in Part 3 is—
 - (i) carried out in a working museum to demonstrate an industrial activity of historic interest,
 - (ii) carried out for educational purposes in a school within the meaning of section 135(1) of the Education (Scotland) Act 1980(a),
 - (iii) carried out at a place used solely for—
 - (aa) research activities,
 - (bb) development activities,
 - (cc) the testing of new products and processes,
 - (b) the running on or within a vehicle of an engine which propels any such vehicle, locomotive or vessel, or provides electricity for propulsion,
 - (c) the running of an engine—
 - (i) in order to test it before it is installed, or
 - (ii) for the purposes of developing the engine.
 - (d) the use of a fume cupboard in a laboratory for research and testing that is not—

(a) 1980 c. 44; section 135 relevantly amended by the Registered Establishments (Scotland) Act 1987 (c. 4), section 2(2).

- (i) a fume cupboard which is an industrial and continuous production activity enclosure
- (ii) a fume cupboard in which substances or materials are manufactured.

(5) in this paragraph, “fume cupboard” has the meaning given by British Standard BS EN 14175 on Fume Cupboards(a).

Interpretation: threshold values

2.—(1) For the purposes of Part 3 of this schedule, “threshold values” refers to production capacities or outputs,

(2) where several activities falling under the same activity description containing a threshold are operated in the same authorised place, the capacities of those activities are to be added together in order to determine whether a threshold is met.

PART 2

Amendments to the Common Framework

General aims: guidance on best available techniques

3. SEPA may when carrying out a relevant function related to other emissions activities have regard to any applicable Scottish, UK or EU guidance on the best available techniques for preventing, or where that is not practicable, reducing emissions from an activity when taking into account the general aims in accordance with regulation 9 of the Regulations.

PART 3

Activities

CHAPTER 1

Thermal treatment and associated activities

1. Burning any fuel in combustion plants which generate electricity on the same site with an aggregated rated thermal input of 1 MW or more.

2. The loading, unloading or other handling of, the storage of, or other physical, chemical or thermal treatment of crude oil, or stabilised crude petroleum.

3.—(1) Purifying or refining any of the products of—

- (a) the refining of mineral oil and gas,
- (b) the production of coke,
- (c) gasification or liquefaction of coal or other fuels in installations with a total rated thermal input of 20 MW or more, or

(2) the conversion of any of the products in sub-paragraphs (1)(a)-(c) into a different product.

4. Thermal treatment of—

- (a) coal (other than drying of coal), lignite, oil, or other carbonaceous material or mixtures, otherwise than with a view to making charcoal,

(a) <https://doi.org/10.3403/BSEN14175>.

- (b) Thermal treatment of other fuels in installations with a total rated thermal input of 20 MW or more.
- 6. Blending odorant for use with natural gas or liquefied petroleum gas,
- 7. In this chapter—
 - “carbonaceous material” includes such materials as charcoal, coke, peat, rubber and wood,
 - “thermal treatment” includes pyrolysis, carbonisation, distillation, partial oxidisation or other heat treatment.

CHAPTER 2

Metals processes

- 8. Loading, unloading or otherwise handling or storing more than 500,000 tonnes in total in any 12 months of iron ore, except in the course of mining operations, or burnt pyrites.
- 9. Casting ferrous metal at a foundry with a production capacity of more than 20 tonnes per day.
- 10. Producing pig iron or steel, including continuous casting.
- 11. Producing, melting or refining iron or steel or any ferrous alloy (other than producing pig iron or steel, and including continuous casting)
- 12. De-sulphurising iron, steel or any ferrous alloy,
- 13. Heating iron, steel, non-ferrous metal and ferrous or non-ferrous metal alloy (whether in a furnace or other appliance) to remove grease, oil or any other non-metallic contaminant (including such operations as the removal by heat of plastic or rubber covering scrap cable) unless—
 - (a) it is carried out in one or more furnaces or other appliances the primary combustion chambers of which have in aggregate a net rated thermal input of less than 0.2 megawatts,
 - (b) it does not involve the removal by heat of plastic or rubber covering from scrap cable or of any asbestos contaminant
- 14. Casting ferrous metal at a foundry with a production capacity of more than 20 tonnes a day.
- 15. Casting iron, steel or any ferrous alloy from deliveries of 50 tonnes or more of molten metal.
- 16. Producing, melting or recovering (whether by chemical means or by electrolysis or by the use of heat) cadmium or mercury or any alloy containing more than 0.05 per cent by weight of either of those metals or of both of those metals in aggregate.
- 17. Melting (including making alloys, of non-ferrous metals, including recovered products), refining and foundry casting in a furnace, bath or other holding vessel which has a design holding capacity of 5 tonnes or more.
- 18. The melting, including making alloys, of non-ferrous metals, including recovered products, refining, foundry casting, etc. in a facility which has a design holding capacity of less than 5 tonnes, or carried out in respect of tin, or an alloy which in molten form contains 50 per cent or more by weight of tin.
- 19. The separation of copper, aluminium, magnesium or zinc from mixed scrap by differential heating,

20. Melting zinc or a zinc alloy in conjunction with a galvanising activity at a rate not exceeding 20 tonnes per day,

21. Melting zinc, aluminium or magnesium or an alloy of one or more of these metals in conjunction with a die-casting activity at a rate not exceeding 20 tonnes per day.

22. Surface treating materials using cadmium or its compounds where the activity may result in the release into the air or water of cadmium and its compounds in a quantity which, in any 12-month period, exceeds the background quantity for cadmium and its compounds by 1000 grams (expressed as metal).

23. Any process for the surface treatment of metal that is likely to result in the release into air of any acid-forming oxide of nitrogen unless listed in schedule 20.

24. The following processes are excluded from the activities described in paragraphs 14 and 21—

- (a) hand soldering,
- (b) flow soldering,
- (c) wave soldering.

25. In this chapter—

“ferrous alloy” means an alloy of which iron is the largest constituent, or equal to the largest constituent, by weight, whether or not that alloy also has a non-ferrous metal content greater than that specified in any other metals activity,

“non-ferrous metal alloy” and cognate expressions mean an alloy which is not a ferrous alloy.

CHAPTER 3

Mineral industry

26. Storing, loading or unloading cement or cement clinker in bulk prior to further transportation in bulk.

27. Blending cement in bulk or using cement in bulk other than at a construction site, including the bagging of cement and cement mixture, the batching of ready-mixed concrete and the manufacture of concrete blocks and other cement products.

28. Grinding cement clinker.

29. Slaking lime for the purpose of making calcium hydroxide or calcium magnesium hydroxide.

30. Heating calcium carbonate or calcium magnesium carbonate for the purpose of making lime.

31. Stripping asbestos from railway vehicles except—

- (a) in the course of the repair or maintenance of the vehicle,
- (b) in the course of recovery operations following an accident,
- (c) where the asbestos is permanently bonded in any material, including in particular in cement, plastic, rubber or resin.

32. The industrial finishing, including shaping, drilling, or fitting manufactured asbestos products, of any of the following products where not carried out in conjunction with manufacture—

- (a) asbestos filters,

- (b) asbestos friction products,
- (c) asbestos jointing, packaging, and reinforcement material,
- (d) asbestos packing,
- (e) asbestos textiles.

33. Manufacture of glass at any location with the capacity to make 5,000 tonnes or more in any 12-month period, and any activity involving the use of glass which is carried out at any such location in conjunction with its manufacture.

34. Manufacture of glass where the use of lead or any lead compound is involved.

35. Making any glass product where lead or any lead compound has been used in the manufacture of the glass except—

- (a) making products from lead glass blanks,
- (b) melting, or mixing with another substance, glass manufactured elsewhere to produce articles such as ornaments or road paint.

36. Polishing or etching glass or glass products in the course of any manufacturing activity if—

- (a) hydrofluoric acid is used,
- (b) hydrogen fluoride may be released into the air,

37. The manufacture of glass frit or enamel frit and its use in any activity where that activity is related to its manufacture.

38. Manufacturing cellulose fibre reinforced calcium silicate board.

39. The process of —

- (a) crushing, grinding or other size reduction (other than the cutting of stone), or
- (b) grading, screening or heating

of any designated mineral or mineral product,

- (c) in this paragraph, “designated mineral or mineral product” means—
 - (i) clay, sand and any other naturally occurring mineral other than coal or lignite,
 - (ii) metallurgical slag,
 - (iii) boiler or furnace ash produced from the burning of coal, coke or any other coal product,
 - (iv) gypsum which is a by-product of any activity.

40.—(1) Any of the following activities unless sub-paragraph (2) applies—

- (a) crushing, grinding or otherwise breaking up coal or coke or any other coal product,
- (b) screening, grading or mixing coal, or coke or any other coal product,
- (c) loading or unloading petroleum coke, coal, coke or any other coal product, unless unloading on retail sale

(2) this sub-paragraph applies where the activities in sub-paragraph (1) are carried on in any premises—

- (a) used for the sale of petroleum coke, coal, coke or any coal product where the throughput of such substances at those premises in any 12-month period is in aggregate likely to be less than 10,000 tonnes, or
- (b) to which petroleum coke, coal, coke or any coal product is supplied only for use there,

41. The crushing, grinding or other size reduction, with machinery designed for that purpose, of bricks, tiles or concrete and/or screening the product at the same or a different location.

42. Coating road stone with tar or bitumen.

43. Loading, unloading, or storing pulverised fuel ash in bulk prior to further transportation in bulk.

44. The fusion of calcinated bauxite for the production of artificial corundum.

45. Firing heavy clay goods or refractory goods other than heavy clay goods in a kiln,

46. vapour glazing earthenware or clay with salts.

47. The activities in paragraphs 39 to 46 do not include any of these activities where carried out underground.

48. In this chapter—

“asbestos” includes any of the following fibrous silicates—

- (a) actinolite,
- (b) amosite,
- (c) anthophyllite,
- (d) chrysotile,
- (e) crocidolite,
- (f) tremolite.

“clay” includes a blend of clay with ash, sand or other materials,

“coal” includes lignite,

“refractory” means refractory material (such as fireclay, silica, magnesite, chrome-magnesite, sillimanite, sintered alumina, beryllia and boron nitride) which is able to withstand high temperatures and to function as a furnace lining or in other similar high temperature applications.

“retail sale” means sale to the final customer.

CHAPTER 4

Chemical Industry

49. Producing halogens or any compound comprising only—

- (a) two or more halogens,
- (b) any one or more of those halogens and oxygen.

50. The carrying out of any activity involving the use in any 12-month period of—

- (a) 5 tonnes or more of diphenyl methane di-isocyanate or other di-isocyanate of lower volatility than toluene di-isocyanate,
- (b) partly polymerised di-isocyanates or prepolymers containing 5 tonnes or more of di-isocyanate monomers, where the activity may result in a release into the air of such monomers.

51. The flame bonding or cutting with heated wires of polyurethane foams or polyurethane elastomers.

52.—(1) Any activity for the polymerisation or co-polymerisation of any pre-formulated resin or pre-formulated gel coat which contains any styrene, which is likely to involve, in

any 12-month period, the polymerisation or co-polymerisation of 100 tonnes or more of styrene,

(2) Any activity for polymerising or co-polymerising any unsaturated hydrocarbons or a product of an activity listed in schedule 21 (other than a pre-formulated resin or pre-formulated gel coat which contains any unsaturated hydrocarbons), which is likely to involve, in any 12 month period, the polymerisation or co-polymerisation of 50 tonnes or more of any of those materials or, in aggregate, of any combination of those materials.

53. Any chemical production process which is likely to result in the release—

(a) into the air of any hydrogen halides (other than the coating, plating or surface treatment of metal),

(b) into the air or water of any halogens or any of the compounds mentioned in paragraph 52,

other than the treatment of water with chlorine.

54. Any production activity which uses, or is likely to result in the release of, hydrogen cyanide or hydrogen sulphide.

55. Producing any compounds, or using or recovering any mixture (other than in the application of a glaze or vitreous enamel), containing any of the following substances or their compounds—

(a) antimony,

(b) arsenic,

(c) beryllium,

(d) gallium,

(e) indium,

(f) lead,

(g) palladium,

(h) platinum,

(i) selenium,

(j) tellurium,

(k) thallium,

(l) cadmium,

(m) mercury,

where the activity may result in the release into the air of any of those elements or their compounds.

56. Any other activity which may result in the release into the air of any acid forming oxide of nitrogen.

57. Any activity for the manufacture of a chemical which may result in the release of ammonia into the air other than an activity in which ammonia is only used as a refrigerant.

58. The storage, other than as part of another activity or in a tank for the time being forming part of a powered vehicle, of any substance listed in column 1 of Table 1, except where the total capacity of tanks used for storage is less than the amount specified in column 2 of the Table.

Table 1

<i>Substance</i>	<i>Amount (in tonnes)</i>
Any one or more acrylates	20
Acrylonitrile	20
Anhydrous ammonia	100

Anhydrous hydrogen fluoride	1
Toluene di-isocyanate	20
Vinyl chloride monomer	20
Ethylene	8000

59. Unless falling within any other activity description in this Part, recovering any compound of or engaging in any process of productions which involves the use of cadmium, mercury or any compound of either of these elements which may result in the release to air of either of these elements or their compounds.

60. In this chapter—

“acrylate” includes—

- (a) acrylic acid,
- (b) substituted acrylic acids,
- (c) esters of acrylic acids,
- (d) esters of substituted acrylic acids,

“pre-formulated resin or pre-formulated gel coat” means any resin or gel coat which has been formulated before being introduced into polymerisation or co-polymerisation activity, whether or not the resin or gel coat contains a colour pigment, activator or catalyst.

CHAPTER 5

Other activities

61. Cremation of human remains.

62.—(1) Distilling or heating tar or bitumen in connection with any process of manufacture where the carrying on of the activity by the person concerned at the location in question is likely to use in any 12-month period 5 tonnes or more of tar or of bitumen or, in aggregate, both.

(2) Oxidising bitumen by blowing air through it where the carrying on of the activities by the person concerned at the location in question is likely to use in any 12-month period 5 tonnes or more of tar or of bitumen or, in aggregate, of both.

63. Manufacturing new tyres, other than remoulds or re-treads, involving the use in any 12-month period of 50,000 tonnes or more of one or more of natural rubber, or a synthetic organic elastomer, or any substance mixed with rubber or such an elastomer.

64. The mixing, milling or blending of natural rubber, or a synthetic organic elastomer, in which carbon black is used and/or any related activity that converts the resulting product into a finished product.

65.—(1) any activity (other than the repainting or respraying of, or of part of, aircraft or road or railway vehicles) for applying to a substrate, or drying or curing after such application, printing ink or paint or any other coating material as, or in the course of, a manufacturing activity, where the activity may result in the release into the air of particulate matter or of any volatile organic compound, and is likely to involve the use in any 12 month period at any location of—

- (a) 20 tonnes or more of any printing ink, paint or other coating material which is applied in solid form (other than in respect of an activity described in paragraph 2.1(c) of part 4 of schedule 19),
- (b) 20 tonnes or more of any metal coating which is sprayed on in molten form,

- (c) 25 tonnes or more of organic solvents in respect of any cold set web offset printing activity or any sheet fed offset litho printing activity,
- (d) 5 tonnes or more of organic solvents in respect of any activity other than one described in sub-paragraph (c).

(2) repainting or respraying road vehicles or parts of them if the activity may result in the release into the air of particulate matter or of any volatile organic compound and the carrying on of the activity by the person concerned at the location in question is likely to involve the use of 2 tonnes or more of organic solvents in any period of 12 months.

(3) repainting or respraying aircraft or railway vehicles or parts of them if the activity may result in the release into the air of particulate matter or of any volatile organic compound and the carrying on of the activity by the person concerned at the location in question is likely to involve the use in any period of 12 months of—

- (a) 20 tonnes or more of any paint or other coating material which is applied in solid form,
- (b) 20 tonnes or more of any metal coating which is sprayed on in molten form, or
- (c) 5 tonnes or more of organic solvents.

(4) Any activity involving the—

- (a) manufacture or formulation of any coating material (such as printing ink) containing, or involving the use of, an organic solvent, where the carrying on of the activity by the person concerned at the location in question is likely to involve the use of 100 tonnes or more of organic solvents in any 12 months period,
- (b) manufacture of a powder for use as a coating material where the installation has capacity to produce 200 tonnes or more of such powder in any 12-month period.

(5) in this paragraph, the amount of organic solvent used in an activity is calculated using the formula,

A-B,

where—

“A” is the total input of organic solvents into the process, including both solvents contained in coating materials and solvents used for cleaning or other purposes,

“B” is the amount of organic solvents that are removed from the process for re-use or for recovery for re-use.

66.—(1) manufacturing wood products at any works, if the manufacture involves—

- (a) sawing,
- (b) drilling,
- (c) sanding,
- (d) shaping,
- (e) turning,
- (f) planing,
- (g) shredding,
- (h) curing or chemical treatment of wood

Where the throughput of the works in any 12-month period is likely to exceed—

- (a) 10,000 m³ in the case of works at which—
 - (i) wood is sawed but not otherwise subjected to a relevant activity, or
 - (ii) wood is subjected only to exempt activities, or
- (b) 1,000 m³ in any other case.

(2) in this paragraph—

“exempt activities” means a relevant activity where, if no sawing were carried on at the works, any such activity would be unlikely to result in the release into the air of any substances listed in paragraph 9 of Part 2 of this Schedule in a quantity which is capable of causing significant harm,

“throughput” is calculated by reference to the amount of wood, which is subjected to a relevant activity, provided that where wood is subject to two or more relevant activities at the same works no account is taken of the second or subsequent activity,

“wood” includes any product consisting wholly or mainly of wood.

“works” means any premises, such as a sawmill, on which a relevant activity is carried out on wood.

67. Unless part of an exempt activity processing, storage or drying by heat of any part of a dead animal or of vegetable matter which may—

- (a) result in the release into the air a substance referred to in paragraph 69 of chapter 6 of this schedule,
- (b) give rise to an offensive smell noticeable outside the premises in which the activity is carried on.

68. Breeding maggots in any case where 5 kilograms or more of animal or of vegetable matter or, in aggregate, of both are introduced into the process in any week.

69. The ensiling or storage of dead fish or fish offal in plant capable of retaining volumes—

- (1) of less than or equal to 10m³ of ensiled liquor,
- (2) of more than 10m³ and less than or equal to 50m³ of ensiled liquor,
- (3) of more than 50m³ of ensiled liquor.

70. Treating and processing of dry vegetable or dry vegetable and animal matter intended for the production of animal food products through drying by the application of heat and milling, unless it is an exempt activity, which may—

- (a) result in the release into the air of a substance referred to in paragraph 69 of chapter 6 of this schedule,
- (b) give rise to an offensive smell noticeable outside the premises in which the activity is carried on.

71. Any other activity, if not related to any activity described in paragraph 46(11) of Part 4 of schedule 20 for the capture of carbon dioxide from any other source.

72. Anaerobic digestion and associated feedstock and digestate handling and storage unless carried out as part of an activity included in Chapter 5 of schedule 20.

73.—(1) In this chapter—

“aircraft” includes gliders and missiles,

“animal” includes a bird or a fish,

“coating material” includes paint, printing ink, varnish, lacquer, dye, any metal oxide coating, any adhesive coating, any elastomer coating, any metal or plastic coating,

“ensiling” means treatment by the application of acid or alkaline solutions for the purpose of rendering the material free from infectious disease and/or preventing the formation of offensive odours,

“food” includes drink, articles and substances of no nutritional value which are used for human consumption, and articles and substances used as ingredients in the preparation of food,

“green offal” means the stomach and intestines of any animal, other than poultry or fish, and their contents,

“organic solvent” means any volatile organic compound which is used alone or in combination with other agents, and without undergoing a chemical change, to dissolve raw materials, products or waste materials as a—

- (a) as a cleaning agent to dissolve contaminants,
- (b) as a dissolver,
- (c) as a dispersion medium,
- (d) as a viscosity adjuster,
- (e) as a surface tension adjuster,
- (f) as a plasticiser,
- (g) as a preservative,

“tar” and “bitumen” include pitch,

(2) In paragraphs 67 and 70, “exempt activity” means—

- (a) any activity carried out on a farm or agricultural holding, other than the manufacture of goods for sale,
- (b) the manufacture or preparation of food or drink for human consumption, but excluding—
 - (i) the extraction, distillation or purification of animal or vegetable oil or fat, otherwise than as an activity incidental to the cooking of food for human consumption,
 - (ii) any activity involving the use of green offal or the boiling of blood, except the cooking of food (other than tripe) for human consumption,
 - (iii) the cooking of tripe for human consumption elsewhere than on premises on which it is to be consumed,
- (c) the fleshing, cleaning and drying of pelts of fur-bearing mammals,
- (d) any activity carried out in connection with premises used in connection with the business of killing, flaying or cutting up animals, the flesh of which is not intended for human consumption, other than premises—
 - (i) which are hunt kennels or other premises where the flesh is fed to animals,
 - (ii) used for diagnostic, educational or research purposes, or
 - (iii) where animals are cut up solely for the purpose of incineration,
- (e) any activity for the manufacture of soap not falling within a description in paragraph 34 of part 4 of chapter 4 of schedule 20,
- (f) the storage of vegetable matter otherwise than as part of any prescribed activity,
- (g) the cleaning of shellfish shells,
- (h) the manufacture of starch,
- (i) the processing of animal or vegetable matter at premises for feeding a recognised pack of hounds authorised under Article 18(1) of Regulation (EC) No 1069/2009 of the European Parliament and of the Council laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal by-products Regulation)(a),
- (j) the salting of hides or skins, unless related to any other prescribed activity,
- (k) any activity for composting animal or vegetable matter, or a combination of both, except where that activity is carried on for the purposes of cultivating mushrooms,
- (l) any activity for cleaning, and any related activity for drying or dressing, seeds, bulbs, corms or tubers,

(a) EUR 1069/2009 as amended by S.I. 2020/1388.

- (m) the drying of grain or pulses,
- (n) any activity for the production of cotton yarn from raw cotton or for the conversation of cotton yarn into cloth.

CHAPTER 6

Substances to air

74. A reference in this Part to the release into the air of a substance listed in this paragraph is a reference to any of the following substances—

- (a) oxides of sulphur and other sulphur compounds,
- (b) oxides of nitrogen and other nitrogen compounds,
- (c) oxides of carbon,
- (d) organic compounds and partial oxidation products,
- (e) metals, metalloids and their compounds,
- (f) asbestos (suspended particulate matter and fibres), glass fibres and mineral fibres,
- (g) halogens and their compounds,
- (h) phosphorus and its compounds,
- (i) dust.”

SCHEDULE 18

Regulation 8(2)

NEW SCHEDULE 27 TO BE INSERTED INTO THE REGULATIONS

“SCHEDULE 27

Regulation 6(3)

OPERATING A MEDIUM COMBUSTION PLANT

PART 1

Scope and Interpretation

Scope and Interpretation

1.—(1) This Schedule applies to operating a medium combustion plant,

(2) Paragraph 2 applies to the interpretation of—

- (a) this schedule,
- (b) the definition of the activity of operating a medium combustion plant.

2.—(1) “operating a medium combustion plant” means operating a combustion plant with a rated thermal input equal to or greater than 1 megawatt and less than 50 megawatts but does not include the activities in sub-paragraph (2),

(2) the excluded activities are, the operation of —

- (a) a large combustion plant,
- (b) a waste incineration or waste co-incineration plant ,
- (c) combustion plants covered by EU Regulation 2016/1628 on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery(a),
- (d) on-farm combustion plants with a total rated thermal input less than or equal to 5 megawatts, that exclusively use unprocessed poultry manure, as referred to in Article 9(a) of EU Regulation No. 1069/2009 of the European Parliament and Council laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002, as a fuel(b),
- (e) combustion plants in which the gaseous products of combustion are used for the direct heating, drying or any other treatment of objects or materials,
- (f) combustion plants in which the gaseous products of combustion are used for direct gas-fired heating used to heat indoor spaces for the purpose of improving workplace conditions,
- (g) post-combustion plants designed to purify the waste gases from industrial processes by combustion and which are not operated as independent combustion plants,

(a) EUR 2016/1628 as amended by S.I. 2019/648.

(b) EUR 2009/1069 as amended by S.I. 2020/1388.

- (h) any technical apparatus used in the propulsion of a vehicle, ship or aircraft,
 - (i) gas turbines and gas and diesel engines, when used on offshore platforms,
 - (j) facilities for the regeneration of catalytic cracking catalysts,
 - (k) facilities for the conversion of hydrogen sulphide into sulphur,
 - (l) reactors used in the chemical industry,
 - (m) coke battery furnaces,
 - (n) cowpers,
 - (o) crematoria,
 - (p) combustion plants firing refinery fuels alone or with other fuels for the production of energy within mineral oil and gas refineries,
 - (q) recovery boilers within installations for the production of pulp,
- (4) Operating a medium combustion plant does not include research activities, development activities or testing activities relating to medium combustion plants.

Interpretation: general

3. In this schedule—

“dual fuel engine” means an internal combustion engine that uses compression ignition and operates according to the Diesel cycle when burning liquid fuels, and according to the Otto cycle when burning gaseous fuels,

“dust” means particles, of any shape, structure or density, dispersed in the gas phase at the sampling point conditions, which may be collected by filtration under specified conditions after representative sampling of the gas to be analysed, and that remain upstream of the filter and on the filter after drying under specified conditions,

“emission” means the discharge of substances from a combustion plant into the air,

“emission limit value” means the permissible quantity of a substance contained in the waste gases from a combustion plant which may be discharged into the air during a given period,

“engine” means a gas engine, diesel engine or dual fuel engine,

“existing medium combustion plant” means a medium combustion plant put into operation before 20 December 2018, or for which a permit was granted before 19 December 2017 under the Pollution Prevention and Control (Scotland) Regulations 2012(a), provided that the plant is put into operation no later than 20 December 2018,

“gas engine” means an internal combustion engine that operates according to the Otto cycle and uses spark ignition to burn fuel,

“gas oil” means—

- (a) any petroleum-derived liquid fuel falling within CN codes 2710 19 25, 2710 19 29, 2710 19 47, 2710 19 48, 2710 20 17 or 2710 20 19, or
- (b) any petroleum-derived liquid fuel of which less than 65% by volume (including losses) distils at 250°C and of which at least 85% by volume (including losses) distils at 350°C by the ASTM D86 method,

“heavy fuel oil” means—

- (a) any petroleum-derived liquid fuel falling within CN codes 2710 19 51 to 2710 19 68, 2710 20 31, 2710 20 35, or 2710 20 39,
- (b) any petroleum-derived liquid fuel, other than gas oil, which, by reason of its distillation limits, falls within the category of heavy oils intended for use as fuel and of which less than 65% by volume (including losses) distils at 250°C by the ASTM D86 method, or

(a) S.S.I. 2012/360.

- (c) any petroleum product for which distillation cannot be determined by the ASTM D86 method,

“micro-isolated system” (MIS) means any electricity system with consumption less than 500 GWh in the year 1996 where there is no connection with other systems,

“natural gas” means naturally occurring methane with no more than 20% (by volume) of inerts and other constituents,

“new combustion plant” means a combustion plant other than an existing combustion plant,

“nitrogen oxides” (NO_x) means nitric oxide and nitrogen dioxide, expressed as nitrogen dioxide (NO₂),

“refinery fuel” means solid, liquid or gaseous combustible material from the distillation and conversion steps of the refining of crude oil, including refinery fuel gas, syngas, refinery oils and pet coke,

“small isolated system (SIS)” means any system with consumption of less than 3000 GWh in the year 1996, where less than 5% of annual consumption is obtained through interconnection with other systems,

“zone” means part of the territory of Scotland as determined by the Scottish Ministers under regulation 4 of the Air Quality Standards (Scotland) Regulations 2010^(a).

Aggregation

4. A combination formed by two or more medium combustion plants is considered to be a single medium combustion plant for the purposes of this schedule and their rated thermal input are added together for the purpose of calculating the total rated thermal input of the plant, where—

- (a) the waste gases of the plants are discharged through a common stack, or
- (b) in the opinion of SEPA, the waste gases of the plant could be discharged through a common stack, taking into account technical and economic factors.

PART 2

Amendments to the Common Framework

Authorisations

5.—(1) A medium combustion activity may be authorised by permit, registration or notification.

(2) An authorisation for operating a medium combustion plant must give effect to the provisions of this schedule.

Applications for medium combustion activity authorisations

6. An application for an authorisation and a notification for operating a medium combustion plant must include—

- (a) the name of the applicant and the address of the applicant’s registered or principal office,
- (b) the address of the plant (or site upon which the plant is located),
- (c) the rated thermal input (in megawatts) of the plant,
- (d) the type of medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant),

^(a) S.S.I. 2010/204 as amended by 2016/376

- (e) the type and share of fuels used (according to the categories in Part 3 of the schedule),
- (f) the date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20th December 2018,
- (g) the sector of activity of the medium combustion plant or the facility in which it is applied (NACE Code),
- (h) the expected number of annual operating hours of the medium combustion plant and average load in use,
- (i) if required for the purposes of an exemption from compliance with emission limit values, a declaration signed by the authorised person that the plant will not be operated for more than 500 hours or 1000 hours per year, as a rolling average over a period of 5 years or 500 operating hours per year over a rolling average over a period of 3 years (as appropriate).

Emission Limit Values: calculation/parameters

7. All emission limit values set out in this schedule are defined—
- (a) at a temperature of 273.15 K,
 - (b) at a pressure of 101.3 kPa,
 - (c) after correction for the water vapour content of the waste gases,
 - (d) at a standardised O₂ content of—
 - (i) 6% for medium combustion plants using solid fuels,
 - (ii) 3% for medium combustion plants, other than engines and gas turbines, using liquid and gaseous fuels,
 - (iii) 15% for engines and gas turbines.

Emission Limit Values: general

8.—(1) The emissions into air of SO₂, NO_x and dust from an existing medium combustion plant with a rated thermal input greater than 5 megawatts must not exceed the emission limit values set out in—

- (a) Table 2, if the plant is not an engine or gas turbine,
 - (b) Table 3 if the plant is an engine or gas turbine,
- unless an exemption in paragraph 9 applies.

(2) The emissions into air of SO₂, NO_x and dust from an existing medium combustion plant with a rated thermal input of less than or equal to 5 megawatts must not exceed the emission limit values set out in—

- (a) Table 1, if the plant is not an engine or gas turbine,
 - (b) Table 3, if the plant is an engine or gas turbine,
- unless an exemption in paragraphs 9 or 10 applies.

(3) The emissions into air of SO₂, NO_x and dust from a new medium combustion plant must not exceed the emission limit values set out in—

- (a) Table 4, if the plant is not an engine or gas turbine,
- (b) Table 5, if the plant is an engine or gas turbine.

(4) SEPA may set stricter permit conditions than those required by this paragraph where, in the opinion of SEPA, applying such emission limit values would effectively contribute to a noticeable improvement of air quality.

(5) The Scottish Ministers may direct SEPA to include stricter emission limit values than those required by this paragraph, where, in the opinion of the Scottish Ministers, applying

such emission limit values would effectively contribute to a noticeable improvement of air quality.

Emission Limit Values: existing medium combustion plant exemptions

9.—(1) An existing medium combustion plant is exempt from the requirements in paragraph 8(1) or (2) if —

- (a) the plant does not operate more than 500 hours per year (calculated as a rolling average over a period of 5 years), or
- (b) the plant does not operate more than 1000 hours per year (calculated as a rolling average over a period of 5 years) and the plant is operated in case of emergency or extraordinary circumstances for—
 - (i) backup power production in connected islands in the event of an interruption of the main power supply to an island, or
 - (ii) heat production in cases of exceptionally cold weather events.

(2) An authorisation for medium combustion plant which—

- (i) is exempt by sub-paragraph (1) from the requirements in paragraph 8(1) or (2), and
- (ii) is firing solid fuels,

must contain an emission limit value for dust of 200 mg/Nm³

(3) an existing medium combustion plant with a rated thermal input greater than 5 megawatts is exempt from the requirement in paragraph 8(1) until 1 January 2030 where at least 50% of the useful heat production of the plant (calculated as a rolling average over of a period of 5 years) is delivered in the form of steam or hot water to a public network for district heating.

(4) An authorisation for a medium combustion plant which is exempt by sub-paragraph (3) from the requirement in paragraph 8(1) must contain—

- (a) emission limits values which do not exceed—
 - (i) 1100 mg/Nm³ for SO₂,
 - (ii) 150 mg/Nm³ for dust,
- (b) conditions that are necessary to ensure that—
 - (i) no significant pollution is caused,
 - (ii) a high level of protection for the environment as a whole is achieved,

(5) an existing medium combustion plant with a rated thermal input greater than 5 megawatts is exempt until 1 January 2030 from the requirement in paragraph 8(1) to comply with the emission limit values for NO_x in Table 3 where the plant is used to drive gas compressor stations required to ensure the safety and security of a national gas transmission system.

(6) an existing medium combustion plant which is part of a small isolated system, or a micro isolated system is exempt from the requirements in paragraphs 8(1) and (2) until 1 January 2030.

Emission Limit Values: Exemptions

10.—(1) A medium combustion plant is exempt until 1 January 2030 from the requirements in paragraph 8(1) or (2) to comply with an emission limit value for dust in Tables 1, 2, or 3 where—

- (a) the plant fires solid biomass as its main fuel,

- (b) the plant is situated in a zone which conforms with the limit values set out in retained EU law implementing Directive 2008/50/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe^(a),
- (2) An authorisation for a medium combustion plant which is exempt by sub-paragraph (1) from the requirements in paragraph 8(1) or (2) must contain—
- (a) emission limit values which do not exceed 150 mg/Nm³ for dust,
 - (b) conditions necessary to ensure that—
 - (i) no significant pollution is caused,
 - (ii) a high level of protection for the environment as a whole is achieved,
- (3) A plant is exempt from the requirements in paragraph 8(3) where the plant does not operate more than 500 hours per year (calculated as a rolling average over a period of 3 years)
- (4) An authorisation for a plant which—
- (a) is exempt by sub-paragraph (3) from the requirements in paragraph 8(3), and
 - (b) is firing solid fuels
- must contain an emission limit value for dust of 100 mg/Nm³

Emission Limit Values: temporary exemptions

11.—(1) A medium combustion plant may be exempted for a maximum period of 6 months from the requirements in paragraph 8 to comply with an emission limit value for SO₂ where the plant—

- (a) normally uses low-sulphur fuel, and
- (b) the authorised person is unable to comply with an emission limit value for SO₂ due to an interruption in the supply of low-sulphur fuel resulting from a serious shortage.

(2) A medium combustion plant may be exempted for a maximum period of 10 days from the requirements in paragraph 8 where the plant—

- (a) uses only gaseous fuels,
- (b) has to resort exceptionally to the use of non-gaseous fuel due to a sudden interruption in the supply of gas, and
- (c) requires to be fitted with secondary abatement equipment due to the interruption.

(3) The period in sub-paragraph (2) may be extended where SEPA considers that the authorised person has demonstrated that a longer period is justified.

(4) SEPA must inform the Scottish Ministers within 1 month of the granting of any exemption under this paragraph.

Emission Limit Values: multiple fuels

12.—(1) Where a medium combustion plant simultaneously uses two or more fuels, the emission limit value for each pollutant is calculated by—

- (a) taking the emission limit value in Table 1, 2, 3, 4 or 5 for each fuel,
- (b) determining the fuel-weighted emission limit value, which is obtained by multiplying the individual emission limit value in sub-paragraph (a) by the thermal input delivered by each fuel, and dividing the product of multiplication by the sum of the thermal inputs delivered by all fuels, and
- (c) aggregating the fuel-weighted emission limit values.

(a) OJ L 152, 11.6.2008, p. 1-44.

Emissions Monitoring

13.—(1) SEPA must ensure that an authorisation for operating a medium combustion plant includes such conditions as it considers appropriate in an authorisation for a medium combustion activity to ensure that—

- (a) where the plant is using more than one fuel type, emissions are monitored—
 - (i) while the fuel or fuel mix likely to result in the highest level of emissions is being fired, and
 - (ii) during a period, representative of normal operating conditions,
- (b) all monitoring results are recorded and processed so as to enable verification of compliance with the applicable emission limit values,
- (c) a record or information is kept proving the effective continuous operation of any secondary abatement equipment in use at the plant,
- (d) the following are kept—
 - (i) the authorisation and, where relevant, variations and related information,
 - (ii) the monitoring results and information referred to in sub-paragraphs (b) and (c),
 - (iii) a record of the plant's operating hours if applicable for the purposes of paragraph 9(1) or 10(3),
 - (iv) a record of the type and quantities of fuel used in the plant,
 - (v) a record of any breakdown or malfunction of secondary abatement equipment,
 - (vi) a record of a breach of an emission limit value, and the measures taken by the authorised person to restore compliance,
- (e) the information referred to in sub-paragraph (d)(ii) to (vi) is kept for a period of at least 6 years.

(2) Emissions are to be measured—

- (a) for medium combustion plants with a rated thermal input equal to or greater than 1 MW and less than or equal to 20 MW, at least every three years
- (b) for all other medium combustion plants, annually unless sub-paragraph (3) applies.

(3) This paragraph applies where a medium combustion plant is—

- (a) exempted from the requirements of paragraph 8(1) or (2) by paragraph 9(1), or
- (b) exempted from the requirements of paragraph 8(3) by paragraph 10(3).

(4) Where sub-paragraph (3) applies, emissions must be measured at the most frequent of—

- (a) for a medium combustion plant with a rated thermal input equal to or greater than 1 MW and less than or equal to 20 MW, after the elapse of three times the maximum permitted average annual operating hours,
- (b) for medium combustion plants with a rated thermal input greater than 20 MW, after the elapse of a period equal to the maximum average annual operating hours and in either case, measurements must be taken at least every five years.

(5) The following emissions are to be measured—

- (a) pollutants for which an emission limit value is included in this schedule relevant to the plant concerned, and
- (b) carbon monoxide.

(6) The first measurement of emissions is taken within 4 months of either—

- (a) the grant of the authorisation,
- (b) the date of the start of operation of the plant.

(7) Where verified and approved of by SEPA, as an alternative to the requirements of sub-paragraphs (2) and (4), other procedures may be used to determine SO₂ emissions from the plant.

(8) Where emissions are required by SEPA, or the Scottish Ministers, to be measured continuously—

- (a) the measuring systems must be subject to checking by means of parallel measurements with the reference methods at least annually, and
- (b) results of the check are to be provided to SEPA.

(9) Measurements must be taken when—

- (a) the plant is operating under stable conditions at a representative even load, and
- (b) the plant is not starting-up or shutting down.

(10) Sampling and analysis of polluting substances and measurements of process parameters are to be based on methods enabling reliable, representative and comparable results.

(11) Periods of start-up and shut-down are as short as possible.

Anticipated change to Emission Limit Values

14. SEPA must ensure that an authorisation for operating a medium combustion plant includes such conditions as it considers appropriate to ensure that any planned change to the medium combustion plant which would affect the applicable emission limit values is reported to SEPA without undue delay.

Compliance

15. SEPA must ensure that an authorisation for operating a medium combustion plant includes such conditions as it considers appropriate to ensure that in the event of non-compliance with an emission limit value—

- (a) necessary measures are taken immediately to ensure compliance with the permit as soon as reasonably practicable,
- (b) as soon as possible, SEPA is provided with details (in writing) of the non-compliance and the measures taken to restore compliance,
- (c) operation of the plant is suspended until compliance is restored if the non-compliance causes a significant degradation of local air quality.

Compliance Monitoring

16.—(1) SEPA must monitor compliance with emission limit values so as to ensure that the requirements of this schedule are met.

(2) In the case of periodic measurements, an emission limit value is to be treated as being complied with if each of the series of measurements (or other procedures) do not exceed the emission limit value.

(3) In the case of continuous measurements, an emission limit value is to be treated as being complied with if the evaluation of the measurement results indicates, for operating hours within a calendar year, that all of the following conditions have been met—

- (a) no validated monthly average value exceeds the emission limit value,
- (b) no validated daily average value exceeds 110% of the emission limit value,
- (c) in the case of plant composed only of boilers using coal, no validated daily average value exceeds 150 % of the emission limit value,
- (d) 95% of all the validated hourly average values over the year do not exceed 200 % of the emission limit value.

(4) At the emission limit value level, the values of the 95% confidence intervals of a single measured result must not exceed the following percentages of the emission limit values—

- (a) 10% for emissions of carbon monoxide,
- (b) 20% for emissions of sulphur dioxide,
- (c) 20% for emissions of nitrogen oxides,
- (d) 30% for dust.

(5) The validated hourly and daily average values are determined from the measured valid hourly average values after having subtracted the value of the confidence interval specified in sub-paragraph (4).

(6) A day is invalidated if more than three hourly average values are invalid due to malfunction or maintenance of the automated measuring system.

(7) For the purpose of calculating average emission limit values the following periods are to be disregarded—

- (a) periods of start-up and shut-down, and
- (b) the periods referred to in paragraph 11.

Public Requests for Monitoring Data

17.—(1) SEPA must exercise its functions under regulation 37 where a member of the public requests access to the relevant data listed in sub-paragraph 2.

(2) the relevant data includes—

- (a) the monitoring results and information referred to in paragraph 13(1)(b) and (c),
- (b) a record of the plant's operating hours if applicable for the purposes of paragraph 9(1) or 10(3),
- (c) a record of the type and quantities of fuel used in the plant,
- (d) a record of any breakdown or malfunction of secondary abatement equipment,
- (e) a record of a breach of an emission limit value, and the measures taken by the authorised person to restore compliance.

PART 3

Tables

Table 1

Emission limit values (mg/Nm³) for existing medium combustion plants with a rated thermal input equal to or greater than 1 MW and less than or equal to 5 MW, other than engines and gas turbines

<i>Pollutant</i>	<i>Solid biomass</i>	<i>Other solid fuels</i>	<i>Gas oil</i>	<i>Liquid fuels other than gas oil</i>	<i>Natural gas</i>	<i>Gaseous fuels other than natural gas</i>
SO ₂	200 ⁽¹⁾⁽²⁾	1100	-	350	-	200 ⁽³⁾
NO _x	650	650	200	650	250	250
Dust	50	50	-	50	-	-

- (1) The value does not apply in the case of plants firing exclusively woody solid biomass.
 (2) 300 mg/Nm³ in the case of plants firing straw.
 (3) 400 mg/Nm³ in the case of low calorific gases from coke ovens in the iron and steel industry

Table 2

Emission limit values (mg/Nm³) for existing medium combustion plants with a rated thermal input greater than 5 MW, other than engines and gas turbines

<i>Pollutant</i>	<i>Solid biomass</i>	<i>Other solid fuels</i>	<i>Gas oil</i>	<i>Liquid fuels other than oil</i>	<i>Natural gas</i>	<i>Gaseous fuels other than natural gas</i>
SO ₂	200 ⁽¹⁾⁽²⁾	400 ⁽³⁾	-	350 ⁽⁴⁾	-	35 ⁽⁵⁾⁽⁶⁾
NO _x	650	650	200	650	200	250
Dust	30 ⁽⁷⁾	30 ⁽⁷⁾	-	30	-	-

- (1) The value does not apply in the case of plants firing exclusively woody solid biomass.
 (2) 300 mg/Nm³ in the case of plants firing straw.
 (3) 1 100 mg/Nm³ in the case of plants with a rated thermal input greater than 5 MW and less than or equal to 20 MW
 (4) Until 1 January 2030, 850 mg/Nm³ in the case of plants with a rated thermal input greater than 5 MW and less than or equal to 20 MW firing heavy fuel oil.
 (5) 400 mg/Nm³ in the case of low calorific gases from coke ovens, and 200 mg/Nm³ in the case of low calorific gases from blast furnaces, in the iron and steel industry.
 (6) 170 mg/Nm³ in the case of biogas.
 (7) 50 mg/Nm³ in the case of plants with a rated thermal input greater than 5 MW and less than or equal to 20 MW.

Table 3

Emission limit values (mg/Nm³) for existing engines and gas turbines

<i>Pollutant</i>	<i>Type of medium combustion plant</i>	<i>Gas oil</i>	<i>Liquid fuels other than oil</i>	<i>Natural gas</i>	<i>Gaseous fuels other than natural gas</i>
SO ₂	Engines and gas turbines	-	120	-	15 ⁽¹⁾⁽²⁾
NO _x	Engines	190 ⁽³⁾⁽⁴⁾	190 ⁽³⁾⁽⁵⁾	190 ⁽⁶⁾	190 ⁽⁶⁾
NO _x	Gas Turbines ⁽⁷⁾	200	200	150	200
Dust	Engines and gas turbines	-	10(8)	-	-

- (1) 60 mg/Nm³ in the case of biogas.
 (2) 130 mg/Nm³ in the case of low calorific gases from coke ovens, and 65 mg/Nm³ in the case of low calorific gases from blast furnaces, in the iron and steel industry.
 (3) 1 850 mg/Nm³ in the following cases—
 (i) for diesel engines the construction of which commenced before 18 May 2006,
 (ii) for dual fuel engines in liquid mode.
 (4) 250 mg/Nm³ in the case of engines with a rated thermal input equal to or greater than 1 MW and less than or equal to 5 MW.
 (5) 250 mg/Nm³ in the case of engines with a rated thermal input equal to or greater than 1 MW and less than or equal to 5 MW,

225 mg/Nm³ in the case of engines with a rated thermal input greater than 5 MW and less than or equal to 20 MW

⁽⁶⁾ 380 mg/Nm³ for dual fuel engines in gas mode.

⁽⁷⁾ Emission limit values are only applicable above 70 % load.

⁽⁸⁾ 20 mg/Nm³ in the case of plants with a rated thermal input equal to or greater than 1 MW and less than or equal to 20 MW.

Table 4

Emission limit values (mg/Nm³) for new combustion plants other than engines and gas turbines

<i>Pollutant</i>	<i>Solid biomass</i>	<i>Other solid fuels</i>	<i>Gas oil</i>	<i>Liquid fuels other than gas oil</i>	<i>Natural gas</i>	<i>Gaseous fuels other than natural gas</i>
SO ₂	200 ⁽¹⁾	400	-	350 ⁽²⁾	-	35 ⁽³⁾⁽⁴⁾
NO _x	300 ⁽⁵⁾	300 ⁽⁵⁾	200	300 ⁽⁶⁾	100	200
Dust	20 ⁽⁷⁾	20 ⁽⁷⁾	-	20 ⁽⁸⁾	-	-

⁽¹⁾ The value does not apply in the case of plants firing exclusively woody solid biomass.

⁽²⁾ Until 1 January 2025, 1700 mg/Nm³ in the case of plants which are part of SIS or MIS.

⁽³⁾ 400 mg/Nm³ in the case of low calorific gases from coke ovens, and 200 mg/Nm³ in the case of low calorific gases from blast furnaces, in the iron and steel industry.

⁽⁴⁾ 100 mg/Nm³ in the case of biogas.

⁽⁵⁾ 500 mg/Nm³ in the case of plants with a total rated thermal input equal to or greater than 1 MW and less than or equal to 5 MW.

⁽⁶⁾ Until 1 January 2025, 450 mg/Nm³ when firing heavy fuel oil containing between 0.2 % and 0.3 % N and 360 mg/Nm³ when firing heavy fuel oil containing less than 0.2 % N in the case of plants which are part of SIS or MIS.

⁽⁷⁾ 50 mg/Nm³ in the case of plants with a total rated thermal input equal to or greater than 1 MW and less than or equal to 5 MW; 30 mg/Nm³ in the case of plants with a total rated thermal input greater than 5 MW and less than or equal to 20 MW.

⁽⁸⁾ 50 mg/Nm³ in the case of plants with a total rated thermal input equal to or greater than 1 MW and less than or equal to 5 MW.

Table 5

Emission limit values (mg/Nm³) for new engines and gas turbines

<i>Pollutant</i>	<i>Type of medium combustion plant</i>	<i>Gas oil</i>	<i>Liquid fuels other than gas oil</i>	<i>Natural gas</i>	<i>Gaseous fuels other than natural gas</i>
SO ₂	Engines and gas turbines	-	120 ⁽¹⁾	-	15 ⁽²⁾
NO _x	Engines ⁽³⁾⁽⁴⁾	190 ⁽⁵⁾	190 ⁽⁵⁾⁽⁶⁾	95 ⁽⁷⁾	190
NO _x	Gas turbines ⁽⁸⁾	75	75 ⁽⁹⁾	50	75
Dust	Engines and gas turbines	-	10 ⁽¹⁰⁾⁽¹¹⁾	-	-

⁽¹⁾ Until 1 January 2025, 590 mg/Nm³ for diesel engines which are part of SIS or MIS.

⁽²⁾ 40 mg/Nm³ in the case of biogas.

- (3) Engines running between 500 and 1500 hours per year may be exempted from compliance with those emission limit values if they are applying primary measures to limit NO_x emissions and meet the emission limit values set out in footnote (4).
- (4) Until 1 January 2025 in SIS and MIS, 1850 mg/Nm³ for dual fuel engines in liquid mode and 380 mg/Nm³ in gas mode; 1300 mg/Nm³ for diesel engines with ≤ 1200 rpm with a total rated thermal input less than or equal to 20 MW and 1850 mg/Nm³ for diesel engines with a total rated thermal input greater than 20 MW; 750 mg/Nm³ for diesel engines with > 1200 rpm.
- (5) 225 mg/Nm³ for dual fuel engines in liquid mode.
- (6) 225 mg/Nm³ for diesel engines with a total rated thermal input less than or equal to 20 MW with ≤ 1200 rpm
- (7) 190 mg/Nm³ for dual fuel engines in gas mode.
- (8) These emission limit values are only applicable above 70 % load.
- (9) Until 1 January 2025, 550 mg/Nm³ for plants which are part of SIS or MIS.
- (10) Until 1 January 2025, 75 mg/Nm³ for diesel engines which are part of SIS or MIS.
- (11) 20 mg/Nm³ in the case of plants with a total rated thermal input equal to or greater than 1 MW and less than or equal to 5 MW.”

SCHEDULE 19

Regulation 8(2)

NEW SCHEDULE 28 TO BE INSERTED INTO THE REGULATIONS

“SCHEDULE 28

Regulation 6(3)

PETROL VAPOUR RECOVERY ACTIVITIES

PART 1

Scope and Interpretation

Scope

- 1.—(1) This schedule applies to petrol vapour recovery activities,
(2) paragraph 2 applies for the interpretation of—
 - (a) this schedule,
 - (b) the definition of a petrol vapour recovery activity,
2. “Petrol vapour recovery activities” include any of the following—
 - (a) the storage of petrol in stationary storage tanks at a terminal, or the loading or unloading of petrol into or from a road tanker, a rail tanker or an inland waterway vessel at a terminal,
 - (b) the unloading of petrol into stationary storage tanks at a service station if the total quantity of petrol unloaded into such tanks at the service station in any 12-month period is likely to be equal to or greater than 500 m³.
 - (c) Motor vehicle refuelling activities at an existing service station if the petrol refuelling throughput at the station in any 12-month period is more than 3000 m³,
 - (d) Motor vehicle refuelling activities at a new service station if the petrol refuelling throughput at the station in any 12-month period is, or is intended to be, 500 m³ or more,
 - (e) Motor vehicle refuelling activities at a new service station if the petrol refuelling throughput at the station in any 12-month period is, or is intended to be, 100 m³ or more and the service station is under permanent living quarters or working areas.

Interpretation

3. In this schedule—

“API Recommended Practice” means API Recommended Practice 1004, Seventh Edition (November 1988), Bottom loading and vapour recovery for MC-306 tank motor vehicles.

“existing service station” means a service station—

 - (a) which was put into operation, or

(b) for which planning permission under the Town and Country Planning (Scotland) Act 1997(a) was granted

before 31 December 2011,

“existing terminal” means a terminal—

(a) which was put into operation, or

(b) for which planning permission was granted before 31 December 1995,

“inland waterway vessel” means a vessel intended solely or mainly for navigation on inland waterways but not including passenger vessels, ferries, floating equipment and installations, pleasure craft, service craft and fire-service vessels,

“intermediate storage of vapours” refers to the intermediate storage of vapours in a fixed roof tank at a terminal for later transfer to and recovery at another terminals, but does not include the transfer of vapours from one storage installation to another at a terminal,

“loading installation” means any facility at a terminal at which petrol can be loaded on mobile containers and loading installations for road tankers comprise one or more gantries],

“new service station” means a service station which is put into operation on or after 1st January 2012, and—

(a) includes an existing service station where a major refurbishment is completed on or after that date (and for that purpose a major refurbishment means a significant alteration or renewal of the station infrastructure, in particular the tanks and pipes),

(b) excludes an existing service station

“new terminal” means a terminal put into operation after 1 January 1996 and excludes an existing terminal,

“petrol” means any petroleum derivative, with or without additives, having a Reid vapour pressure of 27.6 kPa or more which is intended for use as a fuel for motor vehicles, other than liquefied petroleum gas,

“petrol vapour” means any gaseous compound which evaporates from petrol,

“petrol vapour capture efficiency” means the amount of petrol vapour captured by the Stage II petrol vapour recovery system compared to the amount of petrol vapour that would otherwise be emitted to the atmosphere in the absence of such a system and expressed as a percentage,

“service station” means any premises where petrol is dispensed to motor vehicle fuel tanks from stationary storage tanks, other than premises used in connection with the construction and delivery of new vehicles only,

“Stage II petrol vapour recovery system” means equipment aimed at recovering the petrol vapour displaced from the fuel tank of a motor vehicle during refuelling at a service station and which transfers that petrol vapour to a storage tank at the service station or back to the petrol dispenser for resale,

“Stage I throughput” means the largest total annual quantity of petrol loaded from a storage installation at a terminal or from a service station into mobile containers during the three preceding years,

“Stage II throughput” means the total annual quantity of petrol unloaded from mobile containers into a service station,

“vapour/petrol ratio” means the ratio between the volume at atmospheric pressure of petrol vapour passing through the Stage II petrol vapour recovery system and the volume of petrol dispensed,

“vapour recovery unit” means equipment for the recovery of petrol from vapours including any buffer reservoir systems at a terminal,

“vapours” means any gaseous compound which evaporates from petrol,

“terminal” means any premises which are used for the storage and loading of petrol into road tankers, rail tankers or inland waterway vessels,

“vessel” means an inland waterway vessel.

PART 2

Amendments to the Common Framework

Authorisation conditions: general

4. A petrol vapour recovery activity can only be authorised by permit or registration.

Authorisation conditions: storage installations at terminals

5. SEPA must ensure that an authorisation for a petrol vapour recovery activity includes such conditions as it considers appropriate to ensure that storage installations at terminals comply with the requirements in this paragraph.

- (a) The external wall and roof of tanks must, where above ground, be painted in a colour with a total radiant heat reflectance of 70% or more.
- (b) Sub-paragraph (a) does not apply to a tank—
 - (i) in, or visible from, a National Park or areas which are subject to local landscape designations,
 - (ii) to a tank which is linked to a vapour recovery unit which conforms with the requirements set out in paragraph 6(4)(a),
- (c) Requirements under sub-paragraph (a) may be carried out as part of the usual maintenance cycles of the tanks, provided that they are carried out every three years
- (d) Tanks with external floating roofs must be equipped with a primary seal to cover the annular space between the tank wall and the outer periphery of the floating roof, and with a secondary seal fitted above the primary seal.
- (e) Seals referred to in sub-paragraph (d) should be designed to achieve an overall containment of vapours of 95% or more as compared to a comparable fixed-roof tank with no vapour-containment controls, which is a fixed-roof tank with only vacuum/pressure relief valve.
- (f) New storage installations at terminals where vapour recovery is required must be—
 - (i) fitted with fixed-roof tanks connected to the vapour recovery unit in accordance with the requirements of paragraph 3, or
 - (ii) designed with a floating roof (either external or internal) equipped with primary and secondary seals to meet the performance requirements in sub-paragraph (4)
- (g) Existing fixed-roof tanks must—
 - (i) be connected to a vapour-recovery unit as required for the purposes of paragraph 7, or
 - (ii) have an internal floating roof with a primary seal designed to achieve an overall containment of vapours of 90% or more in relation to a comparable fixed-roof tank with no vapour controls

(8) The requirements for vapour-containment controls in sub-paragraphs (6) and (7) do not apply to fixed-roof tanks at terminals where intermediate storage of vapours is permitted according to paragraph 4(1)(c).

Authorisation conditions: loading and unloading installations at terminals

6.—(1) This paragraph applies to—

- (a) any existing terminal loading petrol onto road tankers, rail tankers or vessels where the through-put is greater than 10 000 tonnes/year,
- (b) any new terminal unless—
 - (i) the new terminal is located on a small, remote island, and
 - (ii) the actual or intended throughput in a twelve-month period is less than 5000 tonnes.

(2) Where this paragraph applies, SEPA must ensure that authorisations include such conditions as it considers appropriate to ensure that the requirements of sub-paragraphs (3) to (5) are met.

(3) (a) displacement vapours from the mobile container being loaded must be returned through a vapour-tight connection line to a vapour recovery unit for regeneration at the terminal unless sub-paragraph (b) applies,

- (b) this sub-paragraph applies to top-loading tankers as long as that loading system is permitted,
- (c) at terminals which load petrol onto vessels, a vapour incineration unit may be substituted for a vapour recovery unit if vapour recovery is unsafe or technically impossible because of the volume of return vapour, provided that atmospheric emissions requirements in respect of vapour recovery units must apply to the vapour incineration unit,
- (d) at terminals with a throughput of less than 25,000 tonnes/year, intermediate storage of vapours may be substituted for immediate vapour recovery at the terminal,
- (e) all terminals with loading facilities for road tankers must be equipped with at least one gantry which meets the specifications for bottom-loading equipment set out in paragraph 5,
- (f) connection lines and pipe installations must be checked regularly for leaks,
- (g) loading operations must be shut down at the gantry in the case of a leak of vapour, and equipment for shut-down operations must be installed at the gantry,
- (h) where top-loading of mobile containers is permitted, the outlet of the loading arm must be kept near the bottom of the mobile container in order to avoid splash loading.

(4) (a) The mean concentration of vapours in the exhaust from the vapour recovery unit, corrected for dilution during treatment, must not exceed 35 g/normal cubic metre (Nm³) for any one hour.

- (b) The monitoring and analysis of the mean concentration of vapours in the exhaust from the vapour recovery unit must satisfy the following requirements—
 - (i) measurements must be made over the course of one full working day (seven hours minimum) of normal throughput,
 - (ii) measurements may be continuous or discontinuous, but if discontinuous measurements are employed, at least four measurements per hour must be made,
 - (iii) the overall measurement error due to the equipment used, the calibration gas and the procedure used must not exceed 10% of the measured value, and
 - (iv) the equipment used must be capable of measuring concentrations at least as low as 3g/Nm³, and the precision must be at least 95% of the measured value.

(5) Where intermediate storage of vapours is substituted for immediate vapour recovery—

- (a) vapours displaced by the delivery of petrol in fixed-roof tanks used for the intermediate storage of vapours must be returned through a vapour-tight connections line to the mobile container delivering the petrol, and
- (b) loading operations may not take place unless the arrangements are in place and properly functioning.

(6) SEPA must maintain a list of the addresses of any terminal to which this paragraph does not apply as a result of sub-paragraph (1)(b).

Authorisation Conditions: specifications for bottom-loading, vapour collection and overfill protection of European Road Tankers

7. SEPA must ensure that an authorisation for a petrol vapour recovery activity includes such conditions as it considers appropriate to ensure that the requirements for bottom-loading equipment are complied with in respect of road tanker loading gantries at terminals as specified below –

- (a) Couplings—
 - (i) the liquid coupler on the loading arm must be a female coupler which must mate with a 4-inch API (101.6 mm) male adaptor located on the vehicle as defined by section 2.1.1.1 of API Recommended Practice,
 - (ii) the vapour-collection coupler on the loading-gantry vapour-collection hose must be a cam and groove female couple which must mate with a 4-inch (101.6 mm) cam and groove male adapter located on the vehicle as defined by section 4.1.1.2 of API Recommended Practice.
- (b) Loading conditions—
 - (i) the normal liquid-loading rate must be 2, 300 litres per minute (maximum 2500 litres per minute) per loading arm,
 - (ii) when the terminal is operating a peak demand, its loading gantry vapour collection system, including the vapour-recovery unit, may generate a counterpressure of no more than 55 millibars on the vehicle side of the vapour-collection adapter, and
 - (iii) all approved bottom-loading vehicles must carry an identification plate which specifies the maximum permitted number of loading arms which may be operated simultaneously whilst ensuring that no vapours are released via the compartment P and V valves, when the maximum plant back pressure is 55 millibar
- (c) Connection of vehicle earth/overfill detection—
 - (i) The loading gantry must be equipped with an overfill-detection control unit which, when connected to the vehicle, must provide a fail-safe permission signal to enable loading, providing no compartment-overfill sensors detect a high level.
 - (ii) the vehicle must be connected to the control unit on the gantry via a 10-pin industry standard electrical connector, with the—
 - (aa) male connector mounted on the vehicle, and
 - (bb) female connector attached to a flying lead connected to the gantry-mounted control unit,
 - (iii) the high-level detectors on the vehicles must be—
 - (aa) 2-wire thermistor, which must have a negative temperature coefficient,
 - (bb) 2-wire optical sensors,
 - (cc) 5-wire optical sensors, or

- (dd) a compatible equivalent provided the system is fail-safe,
 - (iv) the gantry control unit must be suitable for both 2-wire and 5-wire vehicle systems.
 - (v) the vehicle must be bonded to the gantry via the common return wire of the overflow sensors so that the wire is connected to pin 10 on the male connector via the vehicle chassis, and pin 10 on the female connector is connected to the control-unit enclosure which must be connected to the gantry earth.
 - (vi) all approved bottom-loading vehicles must carry an identification plate which specifies the type of overflow-detection sensors installed (i. e. 2-wire or 5-wire).
- (d) Location of the connections
- (i) the design of the liquid-loading and vapour collection facilities of the loading gantry must be based on the following vehicle-connection envelope:
 - (aa) the height of the centre line of the liquid adapters must be a maximum of 1.4 metres unladen, and a minimum of 0.5 metre laden with a preferred height of between 0.7 to 1.0 metres,
 - (bb) the horizontal spacing of the adapters must not be less than 0.25 metres with a preferred spacing of 0.3 metres ,
 - (cc) all liquid adapters must be located within an envelope not exceeding 2.5 metres in length,
 - (dd) the vapour-collection adapter should be located preferably to the right of the liquid adapters and at a height not exceeding 1.5 metres (unladen) and not less than 0.5 metres (laden), and
 - (ee) the connections referred to in this head must be located on one side of the vehicle only,
 - (ii) the earth/overflow connector must be located to the right of the liquid and vapour-collection adapters, at a height not exceeding 1.5. metres (unladen) and not less than 0.5 metres (laden).
- (e) Safety interlocks
- (i) for the purposes of earth/overflow detection –
 - (aa) loading must not be permitted unless a permissive signal is provided by the combined earth/overflow control unit and
 - (bb) in the event of an overflow condition or a loss of vehicle earth the control unit on the gantry must close the gantry-loading control valve.
 - (ii) for the purpose of vapour-collection detection, loading must not be permitted unless the vapour-collection hose has been connected to the vehicle and there is a free passage for the displaced vapours to flow from the vehicle into the plant vapour-collection system.

Authorisation conditions: loading and storage equipment at service stations

8. SEPA must ensure that an authorisation for a petrol vapour recovery activity includes such conditions as it considers appropriate to ensure that—

- (a) loading and storage equipment at service stations is designed and operated so that—
 - (i) vapours displaced by the delivery of petrol into storage installations at service stations must be returned through a vapour-tight connection line to the mobile container delivering the petrol
 - (ii) loading operations may not take place unless the arrangements are in place and properly functioning.

- (b) service stations are equipped with a Stage II petrol vapour recovery system if they meet the requirements of any of heads (i) through (iii)—
 - (i) existing service stations where the actual or intended petrol refuelling throughput at the station in any 12-month period is more than 3000 m³
 - (ii) existing service stations which undergo a major refurbishment where—
 - (aa) the actual or intended petrol refuelling throughput in any 12-month period is greater than 500 m³, or
 - (bb) its actual or intended petrol refuelling throughput in any 12-month period is greater than 100 m³, and
 - (cc) it is situated under permanent living quarters or working areas,
 - (iii) any new service stations where the actual or intended petrol refuelling throughput in any 12-month period is greater than 500 m³.

Authorisations: requirements for Stage II petrol vapour recovery systems

9. SEPA must ensure that an authorisation includes such conditions as it considers appropriate to ensure that Stage II vapour recovery systems meet the following requirements—

- (a) the petrol vapour recovery capture efficiency of such systems is equal to or greater than 85% as certified by the manufacturer in accordance with relevant British standards or other relevant international standards,
- (b) where recovered petrol vapour is transferred to a storage tank at the service station, the vapour/petrol ratio must be equal to or greater than 0.95 but less than or equal to 1.05,
- (c) the in-service petrol vapour capture efficiency of Stage II petrol vapour recovery systems is tested at least once a year by—
 - (i) checking that the vapour/petrol ratio under simulated petrol flow conditions conforms with sub-paragraph (b), or
 - (ii) using any other appropriate method,
- (d) where an automatic monitoring system has been installed—
 - (i) SEPA must ensure that the petrol vapour capture efficiency is tested at least once every three years,
 - (ii) any such system must—
 - (aa) automatically detect faults in the proper functioning of the Stage II petrol vapour recovery system and in the automatic monitoring system itself,
 - (bb) indicate faults to the service station operator, and
 - (cc) automatically stop the flow of petrol from the faulty dispenser if the fault is not rectified within seven days,
 - (iii) a sign, sticker or other notification must be placed on or in the vicinity of the petrol dispenser informing consumers of this fact.”

NEW SCHEDULE TO BE INSERTED INTO THE 2013
REGULATIONS

“SCHEDULE

INDICATIVE LIST OF THE MAIN POLLUTANTS

1. Organohalogen compounds and substances which may form such compounds in the aquatic environment.
2. Organophosphorous compounds.
3. Organotin compounds.
4. Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment.
5. Persistent hydrocarbons and persistent and bioaccumulable organic toxic substances.
6. Cyanides.
7. Metals and their compounds.
8. Arsenic and its compounds.
9. Biocides and plant protection products.
10. Materials in suspension.
11. Substances which contribute to eutrophication (in particular, nitrates and phosphates).
12. Substances which an unfavourable influence on the oxygen balance (and can be measured using parameters such as biochemical oxygen demand (BOD), and chemical oxygen demand (COD) etc.).”

SCHEDULE 21
REVOCATIONS

Ref

[To drafted]

DRAFT

SCHEDULE 22
CONSEQUENTIAL AMENDMENTS

Ref

[To be drafted]

DRAFT