Ministry of Infrastructure and Water Management

Regulation Establishments and Activities BES

Information and disclaimer

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The Dutch text contains the applicable legislation.
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Regeling inrichtingen- en activiteiten BES (Stcrt. 2023, 35121)

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Regulation issued by the State Secretary for Infrastructure and Water Management of 15 December 2023, no. IENW/BSK-2023/363174, relating to establishing general binding rules for establishments and activities BES (*Regeling inrichtingen- en activiteiten BES*)

With due observance of articles 2.1(1) and 2.1(2) of the Establishments- and Activities Decree BES (*Inrichtingen- en activiteitenbesluit* BES), the State Secretary for Infrastructure and Water Management hereby DECREES:

CHAPTER 1 GENERAL PROVISIONS

Article 1.1 - Definitions
This regulation defines the following terms as set out below:

continuous soil protection facility: floor, metalled surface or structure, any interruptions or seams in which are sealed, that can temporarily resist or repel substances;

ADR class: class into which a dangerous substance is classified under the terms of the ADR due to its predominantly hazardous nature and the added danger it poses.

agricultural substances: organic fertilisers that cannot be pumped, silage, vegetable by-products that cannot be pumped, used organic substrate materials and residue from growing crops, where the materials in question are not inert goods;

fittings: devices and parts associated with machinery or installations that are essential to the function of said machinery or installations;

industrial wastewater: wastewater that is released by humans as the result of activity as part of commercial or industrial operations, or in volumes that suggest commercial or industrial operations, other than domestic wastewater, run-off or groundwater;

decree: Establishments and activities Decree BES;

substances hazardous to soil: substances that risk damaging the soil may cause contamination as referred to in annex 1(A) to this Regulation;

soil protection facility: drip tray, water-collection basin, soil protection facility, or other leak-proof provision;

CMR substances: substances of very high concern included in the list of carcinogenic substances and processes as referred to in article 4.11 of the Dutch Working Conditions Decree (*Arbeidsomstandighedenbesluit*);

dB(A): measurement of sound pressure, corrected for the sensitivity of the human ear;

organic fertilisers: manure produced by animals kept for use or profit, including the entirely or partially digested contents of the stomach or intestines of such animals and mixtures of mulch/litter including manure, as well as products thereof;

emissions limit value: mass, related to a parameter, concentration or level of an emission that is not exceeded for one or more fixed periods.

IMDG: IMDG Code: International Maritime Dangerous Goods Code (MSC.406(96);

substances intrinsically non-hazardous to soil: substances as referred to in annex 1(B) to this Regulation;

vulnerable properties: dwellings and buildings in which minors, the elderly, the infirm or disabled spend the whole day or a part thereof, such as hospitals, care

homes, nursing homes and crèches; other buildings in which relatively large numbers of people spend a large part of the day, such as offices and hotels, schools, complexes containing more than five shops, supermarkets, department stores, or camping/recreational land;

sources of light: sources of light including, but not limited to:
- public lighting;
- outdoor lighting;
- emission of light from buildings and other structures;
- sporting venue lighting;
- pavement café lighting; advertisement lighting;
- lighting of installations;
- sky beams;
- ornamental lighting;
- lighting on and illumination of industrial parks;

discharge: the introduction of:
- wastewater or other waste substances, contaminants or dangerous substances to surface water;
- wastewater on or into the soil;
- wastewater or other waste substances in a public wastewater system;

raw materials: natural primary materials, such as water (fresh or salt), sand, minerals and timber;

refrigeration installation: combination of linked components filled with refrigerant that, together, form a closed refrigerant circuit, in which the refrigerant can circulate with the aim of absorbing or discharging heat;

natural refrigerants: carbon dioxide, ammonia or hydrocarbons, other than fluorinated greenhouse gases, where used as refrigerants as referred to in annex 2 to this Regulation;

normal cubic metre: quantity of waste gas at 273.15 degrees K and 101.3 kPa at dry-bulb temperature;

maintenance and inspection: activities, with the exception of recovery as referred to in article 2.13.2 and inspections for leaks in accordance with article 2.13.3 of this Regulation, that imply that the circuits that contain fluorinated greenhouse gases or were designed to do so are opened, particularly to add fluorinated greenhouse gases to the system, remove one or more components from the circuit or the equipment, re-fit two or more components of the circuit or the equipment, or repair leaks;

storage facility: fixed space intended for the storage of packaged dangerous substances or CMR substances to the specifications of a fire compartment with a resistance to fire overshoot and flashover of 60 minutes (60 WBDBO);

public wastewater system: a provision for the collection and transportation of wastewater, managed by the Executive Council or a legal entity directed to manage the same for the Island Council;

solvents: solvents that are used in chemical cleaning of textiles;
underground: lying wholly or partially in the soil or mounded with soil;

PERC: tetrachloroethane;

standard fuels: propane, butane and liquid fuels, including NEN-EN 14214-

compliant biodiesel;

synthetic refrigerants: fluorinated greenhouse gases, hydrofluorocarbons (HFCs) where used as a refrigerant as referred to in annex 2 to this Regulation;

recovery: collection and storage of fluorinated greenhouse gases from products including holders and equipment during the maintenance or service, or prior to the removal of the products or the equipment;

UN number: substance identification number during transportation;

impermeable soil protection facility: floor, surface or construction that ensures that substances do not pass into the soil;

operational stock: stock of packaged dangerous substances or CMR substances as referred to in regulation 3.1.3 of PGS 15;

sea: sea as referred to in article 1(j) of the BES Maritime Management Act (*Wet maritiem beheer BES*);

wastewater treatment plant: facility for the treatment of wastewater that is managed by the Executive Council or a legal entity directed to manage for the Island Council;

wastewater treatment system: system for the treatment of wastewater other than a wastewater treatment plant.

Article 1.2 - Party subject to the regulations
Any person intending to carry out, operate or modify a type-I or type-II establishment or change the way in which it operates, or ends an establishment's operations complies with chapters 2 and 3.

CHAPTER 2 INDUSTRY-WIDE QUALITY CRITERIA

SECTION 2.1 QUALITY CRITERIA FOR WASTE

Article 2.1.1 waste management

(1) Without prejudice to the provisions of Chapter 4 of the Act, for the effective management of waste in any case, no:
a. dangerous waste is mixed with other waste;
b. waste is mixed with substances that are not waste;
c. waste is mixed with substances that must be collected or disposed of separately;
d. waste is burnt;
e. waste is dumped;
f. waste is buried.
(2) The following waste must, in any case, be collected separately:
a. cardboard and paper;
b. plastic;
c. aluminium;
d. glass.
(3) Waste shall be removed from the establishment or collected as often as necessary by a waste collector appointed by the Executive Council.

Article 2.1.2 Scrap vehicles

In an establishment other than an establishment with the purpose of maintaining and repairing motor vehicles as referred to in annex 1, chapter 2, section 10 to the Decree, there are no scrap vehicles on site.

Article 2.1.3 Removed asbestos

Removed asbestos or a removed product containing asbestos, other than soil, substrate or scrap vessels shall be submitted to a collector appointed by the Executive Council.

SECTION 2.2 QUALITY CRITERIA FOR WASTEWATER

Article 2.2.1 Discharge route

(1) For the protection of the aquatic environment untreated wastewater is not discharged into the surface water, or onto or into the soil.
(2) Notwithstanding paragraph one, rainwater run-off from the surface other than a soil protection facility may be used or discharged onto or into the soil, or into a surface water other than the sea.
(3) Notwithstanding paragraph one, wastewater that has passed through a wastewater treatment system may be discharged onto or into the soil, or into surface water.
(4) To protect the quality of the soil and surface water, domestic wastewater shall be discharged into the public wastewater system or into a wastewater treatment plant.
(5) After treatment at a wastewater treatment plant, industrial wastewater has been treated to such extent that it:
a. corresponds, in terms of its composition, to domestic wastewater and is suitable for discharge to the public wastewater system; or
b. is suitable for reuse or for discharge onto or into the soil.
(6) Industrial wastewater that cannot be purified or treated at a wastewater treatment plant shall not be discharged to the public wastewater system and shall be removed by road transport.

Article 2.2.2 Protecting the function of the public wastewater system and wastewater treatment systems

(1) To safeguard the flow of water and operation of the public wastewater system, wastewater discharged to the system shall not comprise more than 300 mg/l of suspended solids in any random sample.
(2) The terms of the first paragraph shall be deemed to be met where the wastewater is fed through a well-maintained sedimentation tank with a capacity adjusted to the amount and extent of pollution of the wastewater.
(3) To facilitate the flow of water and maintain the quality of the functioning of the public wastewater system, and to ensure that the wastewater treatment system operates correctly, greasy wastewater that is discharged to the public wastewater system or to a wastewater treatment system before mixing with other wastewater is fed through a properly-dimensioned and well-maintained grease separator and grease trap.

Article 2.2.3 Discharging wastewater from a soil protection facility

(1) Wastewater from a soil protection facility is discharged to the public wastewater system or to a wastewater treatment system.
(2) Wastewater that is discharged to the public wastewater system or to a wastewater treatment system shall be fed through a properly-dimensioned, well-maintained sewage trap and oil separator before mixing with other wastewater.
(3) The oil fraction must be disposed of as hazardous waste by a collector appointed by the Executive Council.

SECTION 2.3 QUALITY CRITERIA FOR SOIL

Article 2.3.1 Preventative soil protection - general

(1) To prevent or limit soil contamination, substances hazardous to soil shall:
a. not be discharged onto or into the soil;
b. be used or delivered above a soil protection facility;
c. be used in such a way that sweating, leaking or splashing of said substances is prevented or kept to a minimum;
d. be properly packaged.
(2) If sweating, leaking or splashing of substances hazardous to soil nonetheless happens or cannot be prevented, such substances shall immediately be removed from the surface using absorbent materials.
(3) A device or installation that contains a fluid circuit shall be placed where the surface forms a continuous soil protection facility.
(4) If the soil protection facility referred to in the third paragraph is a drip tray, it must be able to accommodate at least 110% of the volume of the device or installation.
(5) All tank installations, pipelines and fittings shall be impermeable.

Article 2.3.2 Soil protection - underground tanks

(1) Installations with parts above ground shall be visually inspected at least once per year to check in any case for leaks. Maintenance shall be performed where necessary.
(2) Underground piping systems shall be inspected for leak tightness at least once per five years by a company deemed to be a specialist in this field.
(3) The results of the inspection shall be kept until the results of the following inspection are available, but in any event for five years.

Article 2.3.3 Prevention of soil erosion

Operations to on or in the soil that may lead to soil erosion shall be avoided.

SECTION 2.4 QUALITY CRITERIA FOR LIGHT

Article 2.4.1 Preventing and restricting light pollution
To protect and promote darkness and a dark landscape, use of sources of light shall be kept to an acceptable level to prevent light pollution.

SECTION 2.5 QUALITY CRITERIA FOR NOISE

Article 2.5.1 Preventing and restricting noise pollution
To prevent and restrict noise pollution, noisy work activities shall, where possible, be carried out within a building of the establishment, the doors and windows remaining closed where possible.

Article 2.5.2 Noise limit values
To prevent noise pollution, the following limit values shall not be exceeded:

Area types	07:00 -19:00	19:00 -07:00
Rural environment, quiet recreational/agricultural/kunuku area	40 dB(A)	35 dB(A)
Residential area outside the built-up area	45 dB(A)	40 dB(A)
Residential area in built-up area (mixed area)	50 dB(A)	45 dB(A)
Urban centre (area with residential and work functions)	55 dB(A)	50 dB(A)
Business park/heavy industry	65 dB(A)	60 dB(A)

SECTION 2.6 QUALITY CRITERIA FOR ODOUR

Article 2.6.1 Preventing and restricting odour pollution
Odour pollution in the vicinity of vulnerable properties shall be prevented and, where this is not possible, be kept to an acceptable level.

SECTION 2.7 QUALITY CRITERIA FOR VIBRATION

Article 2.7.1 Preventing vibration nuisance
To restrict vibration nuisance, equipment shall be fitted with effective dampers.

SECTION 2.8 QUALITY CRITERIA FOR ENERGY USE

Article 2.8.1 Energy-saving measures
(1) The operator of an establishment shall take all necessary energy-saving measures, with a pay-back period of five years.
(2) The first paragraph does not apply if the establishment's electricity consumption in the previous year was lower than 20,000 kWh, supplied by the public electricity grid.

SECTION 2.9 QUALITY CRITERIA FOR EXTERNAL SAFETY

Article 2.9.1 Packaging of dangerous substances
(1) The following information shall be printed on the packaging of dangerous substances:
a. the UN number and the correct shipping name of the dangerous substance (mixture);
b. The hazard label as prescribed in the Agreement on the Carriage of Dangerous Goods by Road (ADR), IMDG or GHS.
(2) The packaging shall consist of reliable material that cannot:

a. be damaged by the hazardous substances;
b. react with those hazardous substances; or
c. form a compound with those hazardous substances.

Article 2.9.2 Storage of hazardous substances in packaging

(1) Packaged hazardous substances and CMR substances, other than asbestos or fireworks must be stored in a special storage facility that is configured as a fire compartment equipped with a soil protection facility.
(2) With the exception of operational stock, a storage facility may contain at most:
   a. 2,500 kg of packaged hazardous substances, or
   b. 10,000 kg of packaged hazardous class-8, packaging group II or III without additional danger.

Article 2.9.3 Loading hazardous substances

(1) The provisions of the ADR must be observed when loading or filling a tank truck or other transport unit with hazardous substances within the establishment.
(2) The operator of the establishment is responsible for the availability of a clear and adequate procedure for unloading or discharging:
   a. in which both the transporter's duties and responsibilities and those of the operator of the establishment are specified; and
   b. that is used when loading or filling a storage tank, tank truck or another transport unit.

Article 2.9.4 Storage facility firebreak area

An area of up to at least 3 metres around a storage facility for hazardous substances shall be kept free of vegetation and flammable substances such as textiles, paper and timber/wood.

Article 2.9.5 Use of gas bottles

(1) Gas bottles must be marked clearly and legibly by inscription, or with labels that do not degrade, with the following information:
   a. the UN number and the correct shipping name of the gas or gas mixture;
   b. the hazard label prescribed in the Agreement on the Carriage of Dangerous Goods by Road (ADR), IMDG or GHS;
   c. the date of the following regular inspection.
   d. Gas bottles containing compressed gasses must also show the:
   e. test pressure in bars;
   f. empty mass in kg;
   g. operating pressure in bars.
   h. 3. Gas bottles with liquefied gases must also show the:
   i. test pressure in bars;
   j. water content in litres;
   k. empty mass in kg;
   l. maximum filled mass and the tare weight of the bottle, plus components, or the gross mass, in kg.

Article 2.9.6 Storage of gas bottles

(1) Gas bottles, the combined water content of which exceeds 125 l, must be stored in a storage facility that complies with the requirements set out in article 2.9.2.
(2) No goods are present in a storage facility that would be detrimental to the management of the gas bottles.

SECTION 2.10 QUALITY CRITERIA FOR FIRE SAFETY

Article 2.10.1 Extinguishing agents

(1) There must be sufficient portable extinguishing agents present in the establishment to be able to control or suppress a small (incipient) fire.
(2) Extinguishing agents must also be clearly visible to all and easily accessible.

Article 2.10.2 Maintenance and inspection

(1) Extinguishing agents and fire hose reels shall be checked each calendar year to ensure that they are sound and have valid inspection certification.
(2) The first paragraph does not apply to new extinguishing agents and fire hose reels in the first calendar year.
(3) Inspection shall be carried out by a company deemed to be a specialist in this field.
(4) Following the inspection, a sticker shall be applied to the extinguishing agents and fire hose reels showing the date of the inspection.

SECTION 2.11 QUALITY CRITERIA FOR AIR

Article 2.11.1 Dust emissions

(1) To restrict emissions to the ambient air measures shall be taken in the event of storage, transhipment, internal transportation, breaking or sorting rubble, masonry, glass and construction waste, the production of concrete and concrete products, aimed at:
a. preventing dust nuisance or, where that is not possible, restricting it as much as possible;
b. preventing masonry from getting into the surface water, where possible.
(2) The terms of the first paragraph will be deemed to have been met if:
a. fully-functioning sprinkler system is used to restrict dust nuisance;
b. 'wet' working methods are used.
(3) The ventilation air from the workshop must be spread sufficiently to prevent dust nuisance in adjacent vulnerable properties.
(4) The terms of the third paragraph will be deemed to be met if there is a mechanical extractor to remove dust and the dust is fed through a dust bag.

SECTION 2.12 QUALITY CRITERIA FOR SUSTAINABLE USE OF RAW MATERIALS

Article 2.12.1 Limiting the use of raw materials

(1) The use of raw materials must be limited to the greatest extent possible.
(2) Fresh water must be reused as much as possible.

SECTION 2.13 QUALITY CRITERIA FOR INSTALLATIONS

§ 2.13.1 Refrigeration installations

Article 2.13.1 Scope

This section applies to refrigeration installations that contain at least:
a. 10 kilograms of carbon dioxide;
b. 5 kilograms of hydrocarbons;
c. 1 kilogram of synthetic refrigerants; or
d. 10 kilograms and, at most, 1,500 kilograms of ammonia.

Article 2.13.2 Maintenance and inspection of refrigeration installations

(1) Refrigeration systems shall be inspected each calendar year by a company deemed to be specialist in the field to ensure that the system functions properly and is free from leaks.
(2) Refrigeration installations must be easily accessible for operation, inspection and maintenance.
(3) Recovery of refrigerants shall be carried out by qualified individuals.
(4) During maintenance or prior to the decommissioning or removal of a refrigeration installation, the refrigerant or coolant must be recovered for disposal, or for the purposes of recycling or regeneration.
(5) A report shall be drawn up of maintenance and inspections; this report shall be presented at the request of the competent authority.
(6) The report referred to in the fifth paragraph shall in any case provide information about:

a. the amount (in kg) and the type of refrigerant with which the equipment is filled;
b. the amount (in kg) and the type of refrigerant added to the equipment during installation, service or repair;
c. the amount (in kg) and the type of refrigerant recovered and removed.

Article 2.13.3 Leaks and preventing emissions

(1) The operator of the establishment shall take all necessary precautions to prevent leaks or emissions to the ambient air, or to keep the same to a minimum.
(2) The refrigeration installation shall be switched off to prevent emissions to the ambient air in the event of a suspected leak.
(3) If a leak is diagnosed, the operator of the establishment shall ensure that the refrigeration installation is repaired immediately.

§ 2.13.2 Combustion plants

Article 2.13.4 Scope

This section applies to operating a small standard combustion plant with a rated thermal input of less than 1 MWth, fuelled with standard fuels.

Article 2.13.5 Start-up and shut-down operations

The period of start-up or shut-down operations of a combustion plant must be kept as short as possible to restrict emissions to the ambient air.

Article 2.13.6 Emissions limits for small combustion plants

The smoke from a plant with a rated thermal input of less than 1 MWth shall meet the following emissions limits:

Standard fuel	Installation	Nitrogen oxides (NO_x) (mg per normal cubic metre)	Sulphur dioxide (SO_2) (mg per normal cubic metre)	Total concentration (mg per normal cubic metre)
Fuel in liquid form	Combustion plant with output greater than 0.4 MWth	120	200	20
	Combustion engine	150	65	20
	Gas turbine	50	75	5
Fuel in gas form	Combustion plant with output exceeding 0.4 MWth	140	–	–
	Combustion engine	115	–	–
	Gas turbine	**50**	**15**	**–**

Article 2.13.7 Exemption from emissions limits

The emissions limits referred to in article 2.13.6 do not apply to:
a. a combustion plant that is in operation less than 500 hours per year, with the exception of a diesel engine that is used to generate electricity when the public energy grid is available and no scheduled operations-critical test is being carried out:
b. a combustion plant where the gaseous products of the heating process are used for direct heating, drying or otherwise treating objects or materials.

Article 2.13.8 Calculation of emissions limits

(1) To calculate the emissions of smoke from a combustion plant, the mass concentration of nitrogen oxides (NOx), sulphur dioxide (SO2) and total concentration in the smoke is reduced to smoke with an oxygen content by volume of:
a. 15 per cent, in the case of combustion engines or a gas turbine;
b. 3 per cent, in all other cases.
(2) To calculate the emissions of flue gas by a combustion plant, the mass concentration of nitrogen dioxides (NOx) in the flue gas is calculated as mass concentration of nitrogen dioxide.

Article 2.13.9 Measurement of emissions limits

(1) The measurement of emissions limits referred to in article 2.13.6 shall be carried out by the operator of the establishment at the request of the competent authority.
(2) The measurement referred to in the first paragraph shall be taken at most once every four years.

§ 2.13.3 Wet cooling tower

Article 2.13.10 Research into risk of legionella contamination

(1) The operator of the establishment shall evaluate the risks associated with the wet cooling tower, from which water can be released into the air in aerosol form, to guarantee safety for the surrounding area from legionella contamination.
(2) The research shall, in any case, assess:

a. the risk of propagation of legionella bacteria in the cooling tower by:
   1°. the nature and quality of the water that is used;
   2°. the temperature of the water;
   3°. the residence time of the water;
   4°. the stagnation of the water;
   5°. the presence of biofilm and sediment;
b. the operations of the wet cooling tower;
c. the effectiveness of the water treatment programme for legionella bacteria and biofilm formation; and
d. the risks to the surrounding area, determined in accordance with the following risk categorisation:

Risk category	Location of wet cooling tower that can release water into the air in aerosol form
1	Less than 200 m from a hospital, nursing home or other medically-oriented healthcare institution where people with a weakened immune system are accommodated
2	Less than 200 m from care homes, hotels or other buildings in which people congregate
3	Less than 600 m from a residential area
4	More than 600 m from a residential area

§ 2.13.4 operating a plant to transit, buffer, or reverse sewage

Article 2.13.11 Restricting odour pollution
When operating and having maintenance work carried out on an plant for transiting, buffering, or reversing sewage, measures must be taken to ensure that odour pollution is prevented at sensitive buildings and, if this is not possible, restricted to acceptable levels.

CHAPTER 3 QUALITY CRITERIA FOR ACTIVITIES IN VARIOUS SECTORS

SECTION 3.1 QUALITY CRITERIA FOR SHIPPING ACTIVITIES

§ 3.1.1 Maintenance, repair or spraying of vessels

Article 3.1.1 Scope
This section applies to the maintenance, repair or spraying of vessels.

Article 3.1.2 Spraying vessels
(1) High-pressure spray-cleaning of the hull of a vessel beneath the waterline on the quayside must be performed where the surface at least forms a continuous soil protection facility.
(2) When spraying, wind-resistant materials shall be used where necessary to prevent wastewater or other waste substances from being carried by the wind.

Article 3.1.3 Code of conduct
(1) Within an establishment in which vessels are maintained, repaired or sprayed, a code of conduct that can easily be consulted by all shall be available.
(2) The code of conduct shall in any case include instructions aimed at preventing environmental pollution, for carrying out the work.

§ 3.1.4 Delivering liquid fuels to vessels

Article 3.1.4 Scope
This section applies to the delivery of liquid fuels to vessels.

Article 3.1.5 Protection of surface water
(1) Vessels shall be filled with liquid fuel from a fixed delivery installation on the quayside; filling operations shall be either performed or directly supervised by specialist personnel.
(2) The delivery installation referred to in the first paragraph shall be equipped with an automatic shut-off mechanism that cuts delivery when the fuel tank is full.
(3) The delivery of liquid fuel to vessels shall be carried out in such a way that spilling of fuel can be prevented where possible.
(4) Spilled fuel must be cleared up immediately, using suitable absorbent materials.
(5) The pump nozzle or the end of the fuel filling hose of an installation to deliver liquid fuel to vessels at a bunker station shall be hung, when not in use, in a position above a drip tray that is capable of holding an amount equal to at least the volume that the filler hose can contain.
(6) An installation for the delivery of liquid fuels to vessels shall not be used to fill jerrycans and other containers with liquid fuel.

SECTION 3.2 QUALITY CRITERIA FOR SPORT AND RECREATION

§ 3.2.1 Marina

Article 3.2.1 Scope
This section applies to the possibility of allowing vessels to moor in a marina with at least 10 berths.

Article 3.2.2 Waste collection from vessels
Efficient management of waste demands that users of the marina must collect the following waste materials:
a. used oil and grease from maintenance carried out on vessels;
b. oily and greasy waste from maintenance carried out on vessels;
c. waste from repair work and maintenance work to vessels;
d. bilge water;
e. domestic wastewater; and
f. the contents of chemical toilets.

Article 3.2.3 Discharging wastewater
(1) The collected wastewater referred to in article 3.2.2, preamble and parts e and f, shall be discharged into the public wastewater system or to a wastewater treatment system.
(2) The bilge water shall be passed through a properly-dimensioned, well-maintained sludge trap and oil separator before mixing with other wastewater.

§ 3.2.2 Swimming and bathing water

Article 3.2.4 Scope
This section applies to the operation of a bathing facility.

Article 3.2.5 General provisions for bathing facilities
The health of visitors at a bathing facility shall be protected where possible by ensuring at least the following aspects:
a. sufficient clarity of the bathing and swimming water due to adequate water

treatment, including filtration;
b. high hygienic standards due to a combination of circulation of swimming and bathing water, treatment including disinfection and use of a disinfectant residue in the water;
c. swimming and bathing water of a standard such that transmission of infectious diseases can be prevented;
d. as few visible disinfectant by-products as possible.

SECTION 3.3 QUALITY CRITERIA FOR SERVICES AND HEALTHCARE

§ 3.3.1 Dental procedures with amalgam

Article 3.3.1 Scope
This section applies to dental procedures using amalgam.

Article 3.3.2 Discharging wastewater
(1) The wastewater from dental procedures with amalgam shall be discharged to the public wastewater system or to a suitable wastewater treatment system.
(2) The wastewater referred to in the first paragraph shall, before being discharged to the public wastewater system or a wastewater treatment system, be passed through an amalgam separator with a retention level of at least 95% of the amalgam particles.

§ 3.3.3 Chemical cleaning of textiles

Article 3.3.3 Scope
This section applies to the chemical cleaning of textiles.

Article 3.3.4 Soil protection
(1) To prevent contamination of the soil with perchloroethylene, chemical cleaning of textiles shall be performed where the surface forms at least a non-permeable soil protection facility.
(2) Chemical cleaning of textiles using solvents other than perchloroethylene shall be performed where the surface forms a continuous soil protection facility.
(3) The non-permeable soil protection facility shall not be connected to the public wastewater system or to a wastewater treatment system.

Article 3.3.5 Discharging wastewater
(1) The wastewater from the chemical cleaning of textiles shall be discharged to a public wastewater system or to a wastewater treatment system.
(2) Wastewater discharged into a public wastewater system is subject to an emissions limit for perchloroethylene of 0.1 mg/l measured in a random sample.

Article 3.3.6 Air
Nothing other than perchloroethylene or non-chlorinated aliphatic hydrocarbons shall be used.

SECTION 3.4 QUALITY CRITERIA FOR AGRICULTURE

§ 3.4.1 Storage of animal manure

Article 3.4.1 Scope

This section applies to the storage of animal manure with a total volume in excess of 3 cubic metres.

Article 3.4.2 Soil protection

(1) Where animal manure is stored for a period longer than two weeks, but shorter than six months on an unpaved surface on a site within the establishment they must, in any case, be stored somewhere
(2) with a surface of sufficiently thick absorbent substrate, such that there can be no contact with run-off water.
(3) Once the stored operational materials for agriculture referred to in the first paragraph are removed following storage, the absorbent substrate must also be removed and evenly spread over an unpaved surface.
(4) If animal manure other than poultry manure are stored for a period of six months or longer, they must be stored on a surface that forms a continuous soil protection facility.
(5) If poultry manure is stored for a period of six months or longer, there must be no contact with run-off water.

Article 3.4.3 Discharging wastewater

(1) It is forbidden to discharge wastewater from storage of non-pumpable animal manure into a public wastewater system or wastewater treatment system.
(2) It is permitted to discharge wastewater to or on the soil after storing operational materials for agriculture if the wastewater in question is at least spread evenly over the unpaved surface.

CHAPTER 4. TRANSITIONAL PROVISIONS

Article 4.1

This chapter applies to any person operating type-I and type-II establishments.

Section 4.1 Transitional law on Bonaire and Sint Eustatius

Article 4.1.1 Transitional law relating to wastewater treatment systems

Article 2.2.1(4), where this relates to discharge of domestic wastewater to a wastewater treatment system, does not apply until 1 January 2029.

Article 4.1.2 Transitional law relating to grease-separators

Article 2.2.2(3), where this relates to the use of a grease separator and sludge trap prior to discharge of greasy wastewater, does not apply until 1 January 2026, where discharge of this kind occurs outside an area with a sewage system on Bonaire and the entire territory of Sint Eustatius.

Article 4.1.3 Transitional law relating to continuous soil protection facilities

(1) Article 2.3.1(1), part b, does not apply until 1 January 2027, where this relates to using or delivering substances hazardous to soil above a surface that forms a soil protection facility.
(2) Article 2.3.1(3), in relation to the placing of a device or installation that contains a fluid circuit above a surface that forms a continuous soil protection facility, does not apply until 1 January 2027.

Article 4.1.4 Transitional law in relation to sludge traps and oil separators

(1) Article 2.2.3(2), in relation to the use of an oil separator and sludge trap prior to discharging oily wastewater, does not apply until 1

January 2025.

(2) The first paragraph does not apply to establishments to which the Hindrance Decree Garages Bonaire [Hinderbesluit garagebedrijven Bonaire] applied, prior to the date of effectiveness of this Regulation.

Article 4.1.5 Transitional law in relation to energy-saving measures
Article 2.8.1(1), where this relates to energy-saving measures with payback period of not more than five years, does not apply until 1 January 2026.

CHAPTER 5. FINAL PROVISIONS

Article 5.1 Reference title
This Regulation shall be known as Regulation establishments and activities (BES) (Regeling inrichtingen- en activiteiten BES).

Article 5.2 Date of effectiveness
This Regulation enter into force at the time at which the Establishments and activities Decree BES (Inrichtingen- en activiteitenbesluit BES) enters into force.

This Regulation will be published with the explanatory notes in the Government Gazette.

STATE SECRETARY FOR INFRASTRUCTURE AND WATER MANAGEMENT
V.L.W.A. Heijnen

ANNEX 1 NOT-EXHAUSTIVE LIST OF EXAMPLES OF HIGHLY PREVALENT SUBSTANCES HAZARDOUS TO SOIL

PART A: SUBSTANCES HAZARDOUS TO SOIL:

1.Organic substances (or liquids), watery solutions or emulsions thereof:

- alcohol(s);
- polyols;
- amines;
- amides;
- anilines;
- nitro-compounds;
- perfluour-compounds;
- ketones;
- aldehydes;
- ethers;
- esters;
- acids;
- aromatic compounds;
- phenols;
- polycyclic aromatic hydrocarbons (PAHs);
- halogenated hydrocarbons (volatile and non-volatile);
- pesticides;
- diluents, liquid degreasing agents, paint strippers and cleaning agents, metalworking liquids;
- lacquer, paint and ink;
- oils and greases (e.g. drilling/cutting oil, rolling oil, grinding oil, lubricant, thermal oil, hydraulic oil, edible oil);
- wood-preserving agents, creosote oil, carbolineum, naphthalene;
- solid fuels (including coal);
- liquid fuels;
- urea;
- gas condensate.

2. Inorganic substances (or liquids), watery solutions or emulsions thereof:

- salts of:
  - heavy metals/cations, including chrome, nickel, copper, zinc, arsenic, molybdenum, cadmium, tin, barium, mercury and lead;
  - anions, including fluoride, cyanide, sulphide, thiocyanate, bromide, phosphate, nitrate, chloride (for gritting roads);
- complexing agents, including ammonium, EDTA;
- acids, including hydrochloric acid, phosphoric acid, sulphuric acid, nitric acid;
- alkalis, including ammonia, lye;
- Substances intended to treat metallic surfaces (such as substances for the galvanisation process and pickling liquids);
- wood preserving agents (Wolman’s salt);
- pesticides.

3. Minerals and ores:

- iron ore, bauxite, ilmenite, jarosite, phosphate ore, sodium nitrate etc.;
- sulphur.

4. Operational materials for agriculture:

- manure (solid, liquid and granulated);
- silage;
- solid by-products;
- used substrate material and organic residue, except wood/timber and pruning waste.

5. The substances/waste listed explicitly below:

- resins and synthetic resins;
- influent, primary sludge and digested sewage sludge from wastewater treatment plants;
- animal or slaughterhouse waste;
- pulp waste from agricultural products, and the food-manufacturing industry;
- organic waste;
- non-segregated waste, including solid domestic, construction, demolition and scrap waste, shredder material, discarded vehicles containing fluids, scrap vehicles, plastic (agricultural films or used packaging);
- fly ash;
- contaminated blasting grit;
- drilling fluid and cuttings;
- contaminated blasting grit;
- drilling fluid and drilling muds;
- enamel sludge.

PART B: SUBSTANCES INTRINSICALLY NON-HAZARDOUS TO SOIL

'Intrinsically' refers to the substance itself. To be considered (intrinsically) non-hazardous to soil, a substance must necessarily be one that cannot lead to soil contamination when used operationally. Substances considered to be non-hazardous to soil, to the extent that the substances in question are not contaminated or mixed with other substances, include:

- run-off water, other than from a soil protection facility;
- non-contaminated fresh surface water;
- watery solutions, tested as groundwater, in which the target value (1 for all substances as ascertained in the prevailing Soil Remediation Circular (*Circulaire bodemsanering*) is not exceeded;
- gases (substances that are gaseous above/at 0 °C);
- construction materials: materials in which the total content values of silicon, calcium or aluminium, jointly, exceed 10% by weight of the material in question, except plate glass, metallic aluminium, soil or dredged material that is intended to be used in construction;
- Clean, unpainted and untreated timber/wood (*A-hout*) and glued, painted or lacquered timber/wood (*B-hout*);
- prunings;
- vehicle tyres;
- scrap vehicles from which all liquids have been drained at a scrap yard;
- street furniture;
- garden furniture;
- aluminium, iron and stainless steel;
- plastics: except where this relates to empty, uncleaned packaging of foodstuffs, lubricant, paint, varnish or printing ink, pesticides or dangerous substances;
- plastic insulated cables, except oil pressure cables (including oil-filled high-voltage cables), paper-insulated lead-covered cables and paper-insulated earth cables;
- paper and cardboard;
- Textiles and carpet, and
- flat glass.

Both the operator of the establishment and the competent authority may indicate that a substance does not pose a hazard to soil.

ANNEX 2 REGULATED SUBSTANCES

Group	Substance			Ozone-depletion potential
Group VIII	$CHFCl_2$	HCFC-21	Dichlorofluoromethane	0.040
	CHF_2Cl	HCFC-22	Chlorodifluoromethane	0.055
	CH_2FCl	HCFC-31	Chlorofluoromethane	0.020
	C_2HFCl_4	HCFC-121	Tetrachlorofluoroethane	0.040
	$C_2HF_2Cl_3$	HCFC-122	Trichlorodifluoroethane	0.080
	$C_2HF_3Cl_2$	HCFC-123	Dichlorotrifluoroethane	0.020
	C_2HF_4Cl	HCFC-124	Chlorotetrafluoroethane	0.022
	$C_2H_2FCl_3$	HCFC-131	Trichlorofluoroethane	0.050
	$C_2H_2F_2Cl_2$	HCFC-132	Dichlorodifluoroethane	0.050
	$C_2H_2F_3Cl$	HCFC-133	Chlorotrifluoroethane	0.060
	$C_2H_3FCl_2$	HCFC-141	Dichlorofluoroethane	0.070
	CH_3CFCl_2	HCFC-141b	1,1-Dichloro-1-fluoroethane	0.110
	$C_2H_3F_2Cl$	HCFC-142	Chlorodifluoroethane	0.070
	CH_3CF_2Cl	HCFC-142b	1-Chloro-1,1-difluoroethane	0.065
	C_2H_4FCl	HCFC-151	Chlorofluoroethane	0.005
	C_3HFCl_6	HCFC-221	Hexachlorofluoropropane	0.070
	$C_3HF_2Cl_5$	HCFC-222	Pentachlorodifluoropropane	0.090
	$C_3HF_3Cl_4$	HCFC-223	Tetrachlorotrifluoropropane	0.080
	$C_3HF_4Cl_3$	HCFC-224	Trichlorotetrafluouropropane	0.090
	$C_3HF_5Cl_2$	HCFC-225	Dichloropentafluoropropane	0.070
	$CF_3CF_2CHCl_2$	HCFC-225ca	3,3-Dichloro-1,1,1,2,2-pentafluoropropane	0.025
	CF_2ClCF_2CHClF	HCFC-225cb	1,3-Dichloro-1,1,2,2,3-pentafluoropropane	0.033
	C_3HF_6Cl	HCFC-226	Chlorohexafluouropropane	0.100
	$C_3H_2FCl_5$	HCFC-231	Pentachlorofluoropropane	0.090
	$C_3H_2F_2Cl_4$	HCFC-232	Tetrachlorodifluoropropane	0.100
	$C_3H_2F_3Cl_3$	HCFC-233	Trichlorotrifluoropropane	0.230
	$C_3H_2F_4Cl_2$	HCFC-234	Dichlorotetrafluoropropane	0.280
	$C_3H_2F_5Cl$	HCFC-235	Chloropentafluoropropane	0.520
	$C_3H_3FCl_4$	HCFC-241	Tetrachlorofluoropropane	0.090
	$C_3H_3F_2Cl_3$	HCFC-242	Trichlorodifluoropropane	0.130
	$C_3H_3F_3Cl_2$	HCFC-243	Dichlorotrifluoropropane	0.120

Group	Substance			Ozone-depletion potential
	$C_3H_3F_4Cl$	HCFC-244	Chlorotetrafluoropropane	0.140
	$C_3H_4FCl_3$	HCFC-251	Trichlorofluoropropane	0.010
	$C_3H_4F_2Cl_2$	HCFC-252	Dichlorodifluoropropane	0.040
	$C_3H_4F_3Cl$	HCFC-253	Chlorotrifluoropropane	0.030
	$C_3H_5FCl_2$	HCFC-261	Dichlorofluoropropane	0.020
	$C_3H_5F_2Cl$	HCFC-262	Chlorodifluoropropane	0.020
	C_3H_6FCl	HCFC-271	Chlorofluoropropane	0.030

Ministry of Infrastructure
and Water Management

EXPLANATORY NOTES:

General

1. Introduction

This Regulation is a more in-depth development of article 2.1 of the Establishments and Activities Decree BES (hereinafter referred to as: IAB BES), which establishes the basis for the Minister to set quality criteria for activities that may have adverse consequences for the environment on the islands of Bonaire, Sint Eustatius and Saba (BES). Detailed rules and regulations on the quality criteria are set out in a local Island Ordinance. This gives an opportunity to establish rules that are tailored to the local economy and circumstances on the islands. The option of legislating at these levels stems from article 5.1(4) of the Public housing, Spatial planning and Environmental management Act BES (*Wet vrom BES*, hereinafter referred to as: the Act). The quality criteria have been integrated into this Regulation in the form of target standards and quantified target standards. Detailed rules based on the quality criteria will be developed in depth and realised in the Island Ordinance.

Outlines of the Regulation

Context and background

In the process of drafting the Act in 2012, the legislature was confronted with the fact that there was a limited local regulatory framework in relation to protection of the environment against the adverse effects which may be caused by establishments. Sint Eustatius and Bonaire have had a Hindrance Ordinance (*hinderverordening*) since 1993 and 1995 respectively, but the number of businesses regulated by the ordinance is limited and there are no general binding rules and regulations. There is no such ordinance in force on Saba. As a result, the majority of activities that are harmful to the environment were not regulated. It also appears that there is largely no regulation of activities that are harmful to the environment, or that regulation of this kind is obsolete or difficult to implement and enforce.[1]

The environmental problems that were flagged up and the lack of capacity on the islands both had a role in the lack of legislation, as a result of which the legislature determined, in article 5.1 of the Act, that rules and regulations should be adopted, under the terms of an Order in Council, that are required to protect the environment against the adverse effects that may be caused by establishments. It was announced that, in combination with the Public Entities, this Order in Council would be drafted to incorporate universally binding requirements for establishments.[2] This resulted in the drafting of the IAB BES.

In November 2017, the Minister of Infrastructure and Water Management and the Executive Council Bonaire signed a Letter of intent to promote the development of legislation and policy for a sustainable and safe environment. In that context, there was close collaboration between the Ministry of Infrastructure and Water Management and Bonaire to draft general binding rules and regulations for industrial activities harmful to the environment that

[1] Parliamentary *Papers II* 2009/10, 32473, no. 3.

[2] Parliamentary *Papers I* 2011/12, 32 473, no. 15, p. 1.

are attuned to the local situation, while also offering room for sustainable economic growth. Together with Bonaire, investigations are ongoing into how to put the starting points of this Letter of intent into practice in a way that respects the national and international responsibility of the Minister of Infrastructure and Water Management for environmental issues on the islands. That responsibility is echoed in article 5.1 of the Act, which states that an Order in Council for the issues or categories of case indicated can be used to determine that an island ordinance can set further rules and regulations that are required to protect the environment against the adverse effects that may be caused by establishments.

Ultimately, the IAB BES implementation plan and the Letter of intent led to a set of rules and regulations in which the general binding rules and regulations from the Decree were developed in depth, in this Regulation, which will be developed in the island ordinances. This takes into account the responsibility of the Minister of Infrastructure and Water Management and, more to the point, local legislation can be developed by the councils of the respective islands. As the subject of the environment falls under the portfolio of the State Secretary of Infrastructure and Water Management, this is the person who will sign the Regulation.

For explanatory notes on the choices relating to the delegation of powers in the IAB BES and this Regulation, see the explanatory notes to the Decree (see section 3 Legal basis).

Apart from the fact that article 2.1 of the IAB BES determines the subjects on the rules that must, in any event, be established in this Regulation, the article also contains the provision that the Island Council in question shall also establish detailed rules on those same subjects. Based on the above, the island council must contribute to the subjects on which quality criteria have been set in an island ordinance, which are developed in depth in this Regulation. The quality criteria in this Regulation show where the lower limit is. On this basis, the islands can realise and adapt the criteria to the local situation and current specific environmental ambitions while, at the same time, guaranteeing a minimum level of protection.
In addition, there is space to refine rules further and set a higher level of ambition as appropriate. This set-up has been chosen so that specific minimum standards can be guaranteed, while the given norms can be realised for each island, so that it is possible to take into account local circumstances. Furthermore, this way of working offers greater flexibility and options for responding to changing circumstances.

The system of quality standards under the Order in Council contextualised in the island ordinance is in line with the Letter of intent signed in 2017, and offers safeguards for a comprehensive system of environmental rules and regulations for businesses. The rules pertain to those establishing or operating a type-I or type-II establishment, changing the nature of the establishment or its operations, or ceasing operations altogether. In concrete terms, that means an establishment for which the Island Council is the competent authority; one that falls under the regime of general binding rules and regulations (in contrast to one subject to permitting conditions). A type-II establishment has an obligation to provide a notification. The aim of the notification is primarily to inform the competent authority of the fact that an activity that is subject to notification is being carried out. Type-I establishments have relatively little environmental impact as far as their regular activities are concerned and do not have an obligation to provide notification.

Quality criteria

The structure of the general binding rules differs from the system that operates in the European part of the Kingdom of the Netherlands: the subjects on which there are general rules and regulations for the protection of the environment, pertaining to businesses, are incorporated in the IAB BES. These subjects are developed further in this Regulation, into quality criteria. These rules are further contextualised by the respective islands within the framework of these quality criteria.

This Regulation incorporates the quality criteria in the form of target standards and quantified target standards in relation to the various environmental compartments. Target standards describe the extent to which an activity may harm the environment. This type of specification is applied in the Environmental Management Activities Decree in the European part of the Kingdom of the Netherlands to give businesses the freedom to choose themselves which measures they take to comply with the target requirement. In addition, a target requirement gives the space to use innovative technologies. Quantified target standards specify the measure that must be taken.

The incorporation of target standards in this Regulation has the primary aim of indicating a lower limit, a basic level of protection. The basic level of protection was established on the basis of the results of the Ambition Level under the IAB BES report.[3] The protection level for the European part of the Kingdom of the Netherlands is used on each occasion, then converted to the situation in the Dutch Caribbean islands. In addition, the incorporation of the quality criteria in the form of target standards gives the space at local level to contextualise the rules with quantified target standards. This gives businesses clarity and benefits enforcement.

The subjects that are addressed in this Regulation are both industry wide:

- waste substances;
- wastewater;
- soil;
- light;
- noise;
- odour;
- vibration;
- energy;
- external safety;
- fire safety;
- air;
- sustainable use of raw materials;
- installations;

and sector specific:

- vessel-related activities;
- sport and recreation;
- services and healthcare; and
- agriculture;

The article-by-article explanatory notes specifically address the choices that were made in drafting the rules and regulations. In many cases, there were no rules or regulations, and dates for introduction had to be incorporated. In addition, the implementation of the environmental rules and regulations are supported by the establishment of the Environmental Information Point for the Caribbean Netherlands (*Informatiepunt milieu Caribisch Nederland*). Businesses can obtain information here and ask questions about the

[3] The Ambition Level under the IAB BES Report is available via the Rijkswaterstaat report database.

environmental rules and regulations under the terms of the IAB BES and this Regulation.

Customised rules

In most cases in which activities harmful to the environment are carried out, the general binding rules and regulations will suffice. However, even where the general binding rules and regulations are not appropriate, there is room for customised rules. The basis for customised rules is set out in article 2.3 of the Decree. The provisions for customised rules are provisions that offer a similar (or higher) level of environmental protection as the quality criteria incorporated in the Regulation and its further implementation in the island ordinances. The establishment of additional requirements may also imply that a provision for a customised rules contributes to the specification of a particular quality criterion. This specification will also have to offer the same, or a higher level of environmental protection. The reason for the competent authority to impose such a provision may be due to specific geographical or environment-related circumstances under which the activities are carried out or the establishment is operated. The order incorporating the provisions for customised rules shall contain an explanation justifying the grounds for those provisions. Customised rules are more obvious in the context of quantified target standards than in the context of target standards. Where customised rules are needed for a target standard, the competent authority will have to assess whether the solution in question complies with the target set.

Relation to higher ranked law

The Act offers the basis for an Order in Council. The aforementioned Act covers the obligation of drafting rules and regulations under the terms of an Order in Council that are necessary to protect the environment against the adverse consequences that could be caused by establishments in the Public Entities of Bonaire, Sint Eustatius and Saba. The IAB BES interprets this obligation and contains further rules and regulations in respect of the protection of the environment in the Caribbean Netherlands. The IAB BES stems, on the one hand, from the Minister of Infrastructure and Water Management's responsibility for the environment and, on the other, offers the space for authorities on the respective islands to develop local environmental legislation. Moreover, article 2.1(2) of the IAB BES provides the basis for the development of further rules in a ministerial regulation. When the IAB BES takes effect , the local hindrance ordinances and the regulatory decisions on which they are based will be repealed, where they relate to the subjects regulated by or under the terms of the IAB BES (article 11.23 of the Act) and the IAB BES does not specify any transitional law.

Related legislation

Other relevant legislation relating to planning policy, nature, the living and working environment and public health applicable to the islands:
- BES Safety at Work Act (*Arbeidsveiligheidswet BES*, relating to work in construction, earth works and diving establishments);
- BES Mining Act (*Mijnwet BES*, disturbance to soil or ground, establishments, Environmental Impact Assessment);
- Pesticides (regulations) Act (*Wet voorschriften bestrijdingsmiddelen*, permits for the use of pesticides/herbicides, risks to soil and groundwater);
- Commodities Act (*Warenwet*, substances and product safety, diving equipment);
- Principles for Nature Conservation and Protection BES Act (*Wet grondslagen natuurbeheer en bescherming BES*, Environmental Impact Assessment construction in nature);

– BES Maritime Governance Act (*Wet maritiem beheer BES*).

The legislation referred to above sets rules for subjects that are covered by this Regulation, but those rules were not set with the same goal: to protect the environment. For instance, there is overlap with the Safety at Work (BES) Act in relation to the use of dangerous substances where this concerns determining the risk of legionella in wet cooling towers, from the perspective of health and safety at work.

1. Consequences for the living and working environment, and the business community

Consequences for the living and working environment

At this point in time the rules to protect the living and working environment apply to a very limited number of businesses. Failure to make specific provisions or prevent specific behaviour is not only in breach of the duties of care enshrined at law, but also means a further deterioration in the quality of the living and working environment on the islands. This underlines the importance of the IAB BES and this Regulation.

As a tourist destination, the islands are highly dependent on their solid, green image.[4] As a consequence, a deterioration of the living environment brings risks with it for several sectors rather than just individual businesses. Specifically, the following non-exhaustive list of risks has been identified:

- Soil contamination: as a result of industrial activities carried out without soil protection facilities. This causes potentially irreversible damage to the soil and the ground water, and is only going to increase.
- Waste: improper storage of waste, or failure to separate waste at source may cause immediate problems (due to odour and vermin) in the surrounding area and result in issues at a later point in waste-processing operations.
- Wastewater discharge: discharge of greasy wastewater damages the sewerage system. If the sewerage system is not working, untreated wastewater will be discharged into the soil, reaching the sea via the groundwater. The same will happen if untreated wastewater is discharged to or on the soil. The nutrients in the untreated wastewater have an adverse impact on the coral-reef ecosystem.

Consequences for the business community

In the context of the draft Decree and the IAB BES implementation plan, see the explanatory notes to that decree, a baseline measurement was carried out at the start of 2014 on Bonaire, which involved visits to all type-I and type-II establishments. This was a total of 600 businesses. In 2017, a follow-up investigation was carried out into the level of ambition of the legislation. This looked into the facilities that businesses must, in any event, put in place and use in each sector of the economy to protect the living environment against the consequences of environmentally harmful activities within the local context of Bonaire, which constitutes the basic level of protection. In 2021, on Sint Eustatius, an investigation of businesses looking into the basic level of protection, the Inventory IAB businesses Sint Eustatius, was carried out. This

[4] The tourism value of nature on Bonaire – IVM Institute for Environmental Studies – University of Amsterdam – 2012.

investigation[5] examined 86 type-II businesses on Sint Eustatius.

ATR Recommendation, administrative burden and consequences for the authorities

ATR recommendation

The Decree was submitted to the Dutch Advisory Board on Regulatory Burden (*Adviescollege Toetsing Regeldruk*, ATR). The Advisory Board reviews proposed primary and secondary legislation to assess the effects of the regulatory burden. The Advisory Board recommended that when developing the general binding rules in the ministerial regulation, it would be necessary to take into account the connection with related legislation and to devote attention to how communication for small and medium-sized enterprises could be supported. These recommendations were adopted.

The ATR did not select the dossier for a formal recommendation, as it was expected not to have a sizeable impact on the regulatory burden.

Administrative burden

On the basis of the results of the baseline measurements and the follow-up investigation on Bonaire and Sint Eustatius, in 2017, the consequences for the administrative burden and the actual costs of compliance were identified. The general binding rules for Saba will take effect in 2026, as per the agreement with the Island Council Saba. For this reason no investigation has, as yet, been carried out into these businesses.

This Regulation is a product of the IAB BES. The explanatory notes on the IAB BES include the observation that the general binding rules will have the effect of many businesses not needing an environmental permit. This will have the effect of reducing the tax burden. This also applies to the Regulation. One-off investments will be required for various sectors. These are explained below.

- Treatment systems for wastewater

  The replacement of cesspits with wastewater treatment systems. Businesses on Bonaire in the area with a sewerage network are connected to the public wastewater system. This wastewater is purified in the wastewater treatment plant. Wastewater at businesses outside the area with a sewerage network must be purified in wastewater treatment system (septic tanks) or discharged in cesspits. On the basis of the requirements covered in this Regulation, businesses with a cesspit will have to procure and install a wastewater treatment system.
  This may be the case in a range of sectors. There is no wastewater treatment plant on Sint Eustatius. Businesses often discharge their wastewater into a cesspit. A few businesses treat their wastewater using a 'constructed wetland' to drain wastewater, or use a septic tank. Businesses that are confronted with the requirement to treat wastewater must replace a cesspit with a wastewater treatment system. The costs associated with replacing a cesspit with a sewage treatment facility, such as a septic tank, on Bonaire amount to approx. $7,000. On Sint Eustatius, the cost of replacing a cesspit with a wastewater treatment system is approximately $ 5,000.

[5] The Inventory IAB companies Sint Eustatius report may be consulted via the register of documents of the Sint Eustatius Public Entity

It is estimated that there are around 60 type-II businesses outside the area with a sewerage network on Bonaire that will have to acquire and install a wastewater treatment system. The average service life of a septic tank, assuming it is used correctly and well maintained, is 30 years. This means a one-off investment of $ 7,000 per business. Total investment costs amount to approximately $ 420,000. On Sint Eustatius, it is estimated that around 80 type-II businesses will have to acquire and install a wastewater treatment system. This means a one-off investment of $ 5,000 per business. Total investment costs amount to approximately $ 400,000. The target transition period is five years.

- Soil protection facilities

  Businesses that use or deliver substances hazardous to soil will have to carry out such activities above a surface that forms a continuous soil protection under the terms of this Regulation. A continuous soil protection facility may take the form of a concrete surface without interruptions. It is estimated that around 35 businesses on Bonaire will have to install a continuous soil protection facility under the terms of this Regulation. The costs are estimated to be $ 7,500 per business. This means a total investment of $ 262,000. On Sint Eustatius, around 19 businesses will have to build a continuous soil protection facility. Depending on the surface area, the investment per business is estimated at between $ 3,000 and $ 12,000. The total investment is estimated to be $ 156,000. Under the terms of the transition period, this will be spread over three years.

- Grease separators

  Under the terms of this Regulation, businesses that discharge greasy wastewater to a wastewater treatment system or to a public wastewater system will have to install a grease separator, through which the wastewater is passed before it is discharged. Businesses that release wastewater of this kind are those that process foodstuffs or where foodstuffs are prepared. On Bonaire, article 9 of the Island Resolution[6] incorporates the requirement that a private sewer may solely be connected to the public sewerage system where a grease separator that complies with NEN 1825-1/2 has been fitted. This requirement means that solely businesses outside the area with a sewerage network will have to fit a grease separator under the terms of this Regulation. It is estimated that this concerns approximately 20 type-II businesses. The costs associated with acquiring and fitting a grease separator are estimated to be $ 3,500 per business. This assumes that the grease separator is installed outdoors, with the tank and associated piping being embedded. This means a total investment of $ 70,000. On Sint Eustatius, approximately 31 businesses will have to acquire and install a grease separator. The cost is estimated to be $ 500 per business. This means a total investment of $ 15,500.

- Provisions for the safe storage of hazardous substances

  Structural measures may be required if hazardous substances are to be stored safely, such as the construction of a storage facility to the specifications of a fire compartment, with a resistance to fire transfer and flashover (WBDBO). Under the terms of the requirements in this

[6] Island Resolution of general scope of APR 17 2013 no. 2 in implementation of article 7(3), of the Wastewater Island Ordinance (Bonaire).

Regulation, businesses that store such hazardous substances will have to construct a storage facility of this kind. On Bonaire, the number of businesses that will have to comply with this requirement is estimated to be 11. The purchase price is estimated to be $ 3,000. This means a total investment of $ 33.000. On Sint Eustatius, this concerns 22 businesses. The cost of acquiring facilities for safe storage of dangerous substances (to fire compartment standard) is estimated to be $ 2,500. This means a total investment of $ 55,000.

- Oil separator and sludge trap

  Where activities involve work with mineral oils, the wastewater may become contaminated. Prior to discharging oily wastewater, under the terms of this Regulation the wastewater will have to be passed through an oil separator and sludge trap. This type of wastewater is, among other things, the result of the delivery of liquid fuel (from filling stations) and the repair and servicing of motor vehicles. Under the terms of article 20 of the Hindrance Decree Garages (Bonaire) [*Hinderbesluit garagebedrijven Bonaire*], businesses that repair and service motor vehicles must already comply with the requirement for installing an oil separator and sludge trap for the discharge of wastewater. Businesses that deliver liquid fuel will have to acquire an oil separator and sludge trap under the terms of this Regulation. On Bonaire, the number of businesses that will have to comply with this requirement is estimated to be four. The purchase price is estimated to be $ 500. This means a total investment of $ 2,000. For Sint Eustatius, this is estimated to concern two businesses. The purchase price of oil separators and sludge traps are not incorporated in the Inventory Companies IAB Sint Eustatius report, but are probably comparable with the costs for Bonaire.

It may be the case that a business has to invest in a range of facilities. To compensate these businesses, the transitional law is broadly formulated and businesses may spread the cost of the required financial investment.

Consequences for the administration

The consequences for the administration focus on knowledge and capacity. As far as knowledge is concerned, this relates to updating levels of knowledge required to implement, monitor and enforce the Decree and the Regulation.

The number of businesses that falls under the general binding rules and regulations will rise, as a permit will no longer be required in a number of cases. However, extra effort will be needed for inspection and enforcement of the general binding rules and regulations. An environmental information point has been created to answer frequently-asked questions. The use of inspection and enforcement is scheduled via risk-based inspection. This means that the frequency is determined by the risk profile of the businesses. The average inspection frequency is once per two years. To make the inspection and enforcement tasks as efficient as possible, the ICT 'Digital Checklists' tool has been implemented via the IAB implementation process at the Inspection and Enforcement Office on Bonaire and Sint Eustatius.

Consultation

In the run-up to the internet consultation prior to this Regulation, in September 2022 businesses on Sint Eustatius were notified on the content of the rules in two meetings on the island. The meetings were organised by the

Sint Eustatius Public Entity, in collaboration with the Ministry of Infrastructure and Water Management, and implemented by Rijkswaterstaat. In total, around 35 businesses attended. In general, the businesses in attendance acknowledged the need to regulate industrial activities for the protection of the environment. Concerns were expressed about the investments needed to be able to comply with the rules and regulations, but the proposed transition periods were deemed to be feasible. In December 2022, during the Central Dialogue, a local consultative organ made up of employers, unions, the local administration and the Chamber of Commerce chaired by the Governor of Bonaire, information was provided on the contents of the rules incorporated in this Regulation. Environmental legislation for businesses to protect the living environment was seen as important, and attention was drawn to a step-by-step introduction of the rules and regulations, so that businesses would have time to comply with the new situation.

The internet consultation for this Regulation was held in the period between 20 March 2023 and 15 May 2023. 5 responses in total were submitted, of which one was from an organisation, the Bonaire Chamber of Commerce and the Business Federation Bonaire. The other 4 responses were from private individuals. The consultation version of this Regulation was received with a mixture of responses, some positive, some critical. The responses addressed a wide range of subjects: categorisation of establishments, inspection and enforcement, and the financial consequences for businesses.

The various responses are described for each subject below.

General

The responses make it clear that the population was not specifically made aware of the consultation. Furthermore, people felt the rules were often complicated or very vague.

The internet consultation was brought to the attention of businesses via the Environmental Information Point on Bonaire, businesses being the primary target group of this Regulation. The website of the Environmental Information Point gives an explanation of how the rules work, and about environmental techniques. This response was the reason behind several clarifications of the explanatory notes to this Regulation.

Inspection and enforcement

In relation to inspection and enforcement, one response showed that the legislation under the terms of the IAB BES assumes that there is a properly functioning Inspection and Enforcement Unit in place on Bonaire, although this is not currently the case. Another point raised was that the Inspection and Enforcement Unit should first be put back on track before considering implementing the IAB BES. At the behest of the State Secretary for Infrastructure and Water Management, the Human Environment and Transport Inspectorate (ILT) launched an investigation into how the licensing, inspection and enforcement (VTH) tasks in relation to construction, the environment and nature on Bonaire, Sint Eustatius and Saba (BES) are performed.[7] The report was presented to the Lower House of the Dutch Parliament on 13 June 2023. One of the recommendations of the ILT report is that the IAB BES is an important instrument for improving the quality of the VTH tasks themselves, and rapid introduction of the IAB BES will ensure that businesses that may, potentially, breach environmental standards will be regulated. For that reason, the IAB BES will quickly

[7] Licensing, Surveillance and Enforcement(VTH) report by the Bonaire Public Entity – ILT, 1 June 2023.

become effective.[8] Despite the response received, the point at which the IAB BES or this Regulation comes into force will not be amended.

Categorisation of establishments

One of the responses describes acknowledgement of the considerations on how to configure the system to incorporate both mandatory permitting and general binding rules and regulations, so that businesses governed by the general binding rules and regulations have less of an administrative burden. In addition, one of the responses made a suggestion relating to the decision to characterise large-scale construction projects, specifically those on the coast, as activity harmful to the environment, with permitting powers and authority for inspection and enforcement delegated to the Minister (category-IV establishment) due to the potentially sizeable environmental impact these have. The starting point used in the decision to characterise an establishment as a category-IV establishment was complexity and the potential hazard posed to the surrounding area. In the European part of the Kingdom of the Netherlands, such establishments are those that were designated in the Major Accident Hazards Decree, 2015. Construction projects do not fall under this categorisation. The suggestion to add large-scale construction activity was not adopted.

Financial consequences

Two responses addressed concerns on the financial consequences of the introduction of the Regulation for businesses and the investments required that this would entail. It was pointed out that regardless of the ample transition periods that are incorporated in the Regulation, it is expected that small-scale business people in particular will not have access to sufficient funds to make the required investments. One of the responses received stated that there are schemes in the European part of the Kingdom of the Netherlands to support businesses, and that these schemes are not intended for use in the Caribbean Netherlands
The starting point in the European part of the Kingdom of the Netherlands is that there are no grants available to meet the terms of environmental legislation. This also applies in principle to the Caribbean Netherlands. Schemes for businesses may well be available for activities carried out in the context of the Nature and Environment Policy Plan for the Caribbean Netherlands. This will be investigated.

Inspection and enforcement

Under the terms of article 10.2 of the Act, the Executive Councils, to the extent of their authority in each case, are responsible for the enforcement under administrative law of any provisions under the Act. Under the terms of article 1.3 of the IAB BES, the Executive Councils are the competent authority for type-I, type-II and type-III establishments, hence they are responsible for administrative enforcement of the permits (type-III establishments) and the rules that apply to type-II and type-III establishments under the terms of the IAB BES, this Regulation and the further rules that they have drawn up in Island Ordinances. This forms an integrated package of rules and regulations for which the Executive Council is responsible, where this relates to enforcement of administrative law.

[8] Presentation of ILT report in relation to the VTH system (environment, construction, nature) Caribbean Netherlands – ref. no. IENW/BSK-2023/154620

The interpretation of the enforcement of administrative law does, in part, follow the system in the Netherlands. Article 10.3 of the Act states that, in relation to the enforcement of administrative law, titles 5.1 to 5.3 inclusive of the General Administrative Law Act (*Algemene wet bestuursrecht*) apply. These titles pertain to observation and remedial sanctions, including enforcement of an administrative order or penalty. The power to impose these sanctions is assigned to the Executive Council under the terms of article 10.4 of the Act. That article, and others, including article 70 of the BES Maritime Governance Act (*Wet maritiem beheer BES*), forms the basis for the option of imposing an enforceable writ of execution to collect an administrative penalty (article 10.5(a) of the Act).

Feasibility and enforceability

The requirements incorporated in this Regulation apply to type-I and type-II establishments. A large number of these businesses previously fell under the scope of the Bonaire Hindrance Ordinance, the Sint Eustatius Hindrance Ordinance 1993 or the Windward Islands Hindrance Ordinance, for example filling stations or catering companies. The rules incorporated in this Regulation for the first time govern the activities of these businesses, which have an impact on the environment.
The uniform set of rules in this Regulation will make enforceability easier, as businesses with more than one branch on the islands, or people who run more than one business are subject to the same rules. Furthermore, the Regulation offers space to adapt to the ambitions of the islands by using the general rules. This method of regulation contributes to further improvement of the feasibility and enforceability.
When the Establishments and Activities Decree (IAB) BES and this Regulation were being drafted, attention was focused on the provision of information for the businesses. There is an Environmental Information Point for the Caribbean Netherlands, where businesses can ask questions about the environmental rules via the help desk. This contributes to better compliance with environmental rules.

Further rules in the Island Ordinances

The Island Ordinances set out detailed rules on the quality criteria incorporated in this Regulation. The quality criteria are frequently incorporated in the form of target requirements to offer space for the islands to develop them in the Island Ordinance. This also recognises the differences in relation to economic activity on the three islands. Given its size and population, the amount of industrial activity on Bonaire is greater than on Sint Eustatius and Saba. In this way, the rules in this Regulation can be further developed in a specific way for each island. This may include incorporation of standards for septic tanks, which are readily available in the region, or of quantified target standards where these have not already been incorporated in this Regulation. This system of further rules gives businesses clarity within the local framework and benefits enforceability of the rules.

The Human Environment and Transport Inspectorate (referred to below as ILT) subjected this Regulation and the associated draft Establishments and Activities (Bonaire) Island Ordinance to an enforceability, feasibility and fraud-resistance test (Dutch acronym: HUF test). The ILT is not a direct regulatory body, either for this Regulation or the Island Ordinance.
The ILT offers a number of general suggestions and detailed comments at article level for this Regulation. The general suggestions give no reason to amend this Regulation. This is explained in greater detail below for individual points:

Quality criteria

The ILT states that it is not preferable to incorporate quality criteria in the Island Ordinance, as this would lead to objective aspects being interpreted differently on each island. This Regulation establishes quality criteria for the subjects incorporated in article 2.1(2) of the IAB BES, the quality criteria and associated basic level of protection being uniform for all three islands and being enshrined in this Regulation. This offers room for individual islands to make local amendments. For that reason, this suggestion gives no reason to amend this Regulation.

Transitional law on Saba

For Saba, too, the ILT recommends providing clarification on the date of effectiveness and transitional provisions for all categories of the IAB BES in line with the system for Sint Eustatius and Bonaire.

When the draft version of the Decree and this Regulation were drawn up, agreements were made with the executive of Saba on the phased introduction of the environmental rules. An extensive implementation process was completed for Bonaire into the date on which the IAB BES would come into effect. An inventory was carried out for Sint Eustatius into the level of facilities available to the business community. This process had not yet been started on Saba at the time that this Regulation was drafted. As a result of this, there is not yet sufficient insight to incorporate transitional provisions for various facilities.

References to and criteria for situations in the European part of the Kingdom of the Netherlands

The ILT indicates that the references to situations in the European part of the Kingdom of the Netherlands in this Regulation could lead to problems in terms of inspection and enforcement. This relates to the ADR agreement and the PGS (hazardous substances publication series) guidelines. The Act assumes use of the best available techniques (BAT). These are international standards
that can also be interpreted from the perspective of the Netherlands. Businesses may use a customised rules in an attempt to apply a different standard. The ADR agreement is increasingly being seen as an international convention. Although the ADR does not apply on the islands, the ADR classifications are used, as in the Fireworks Decree (Bonaire) and the Fireworks Decree (Sint Eustatius). In this respect, the islands are already familiar with the concept of ADR. This Regulation is consistent with that. And requirements from the PGS guidelines are used in a number of articles. These take the local situation into account.

Amendments at article level

Several proposed amendments have been adopted. This concerns clarification of the article relating to delivery of liquid fuel to vessels, the sequence having been amended. The explanation has been simplified in relation to a number of other aspects. The ILT indicates that some of the articles that incorporate a target standards are not enforceable. Where this is the case for enforceability, the skills of the regulator is important in determining whether a specific measure fulfils the terms of the target standard.

Article by article

Articles 1.1 and 1.2

Article 1.1 - Definitions

Article 1.2 of the Act defines a number of terms. These definitions are also applicable to this Regulation. This applies equally to the IAB BES. Terms used in this Regulation that are not defined in the Act or the Decree are incorporated in this article.

The definition of *natural refrigerants* and *synthetic refrigerants* refers to annex 2. The annex lists the substance names for synthetic refrigerants.

Article 1.2 Party subject to the regulations

The rules incorporated in this Regulation are aimed at anyone who incorporates a type-I or type-II establishment, operates one or has one in place, changes one or changes the way in which it operates, or ends an establishment's operations.
In accordance with article 2.1(1) of the IAB BES, whoever performs an activity shall take into account the quality criteria established in this Regulation, plus the further rules from the respective island ordinance.

Articles 2.1.1 to 2.1.3 inclusive

Article 2.1.1 Dealing with waste substances

Article 2.1.1 states that dangerous substances shall be separated from each other and from other waste, kept separately and disposed of separately. Mixing refers to combining waste that belong to different categories. The primary rule that applies equally to other waste is that they must be separated, kept separately and disposed of separately, except where this cannot reasonably be expected.

It has been decided to incorporate an obligation to separate cardboard and paper, plastic, aluminium and glass. These waste streams are already collected separately from businesses on Bonaire under the terms of the *Afvalbeheer op Maat* [9] programme. Incorporation of this obligation means that the starting point of the programme is enshrined in law.

The first paragraph of this article also lists a number of general prohibitions and an obligation in relation to waste. The Executive Council is the competent authority that designates the collector, under the terms of chapter 4 of the Act. The incineration and dumping of waste outside establishments is prohibited under the terms of article 4.2 of the Act. The terms of article 2.1.1. Also forbid dumping or incineration for establishments that fall under the scope of operation of this Regulation.

Lastly, the third paragraph includes the obligation to remove waste from the establishment as often as possible. Among other things, this reduces the risk of disturbance due to vermin. This hazard generally arises in businesses that store foodstuffs or packaging.

Article 4.13(1)(b) of the Act specifies that anyone who disposes of dangerous

[9] More on this programme: Bonaire Public Entity *Afval* (Waste) (bonairegov.com).

waste, collected or handled waste, or residual substances produced by the incineration of waste shall provide the person collecting the waste(where appropriate) with a manifest. Under the terms of article 4.14(1) of the Act, anyone who transports waste as referred to in article 4.9(1) of the Act shall have a manifest pertaining to the waste transported for as long as said substances are in his/her possession. Where another party takes delivery of the waste in question, he/she shall submit the manifest on delivery of the waste to the other party (article 4.14(2) of the Act).

Article 2.1.2 Scrap vehicles

In the context of efficient management of waste it is undesirable for scrap vehicles to be present or in storage at establishments. As it is often the case in practice that the last owner or keeper of a scrap vehicle gives it to a car dealer or garage/workshop, an exception has been made for establishments for service and repair of motor vehicles. In this case, a scrap vehicle may temporarily be stored at the establishment. Under the terms of annex 1 to the IAB BES, up to four scrap vehicles may be stored.

Article 2.1.3 Removed asbestos

This article prohibits the temporary storage of removed asbestos or removed products containing asbestos on an establishment's land. On Bonaire, the main source of asbestos is asbestos roofing. There is no longer any asbestos roofing, or other products containing asbestos, on Saba, while there is some asbestos roofing on Sint Eustatius. Waste containing asbestos will thus almost exclusively come from Bonaire. Given the small distance to the waste-disposal site on the islands, waste containing asbestos may be presented straight to the collection service designated by the Executive Council without the need for temporary storage.

Articles 2.2.1 to 2.2.3 inclusive

Article 2.2.1 Discharge route

There is no preferred sequence for wastewater in the Act, in contrast to the Environment Protection Act, which incorporates such a provision in article 10.29a. With a view to protecting the aquatic environment, various rules for wastewater are incorporated in this Regulation. The starting points in that respect are prevention, where possible, of the creation of wastewater and, where wastewater is created, prevention of it becoming contaminated in the interests of reuse. Another aspect is that wastewater streams may not be mixed, except where mixing of this kind does not cause problems in its processing.

First and second paragraph

It is prohibited to discharge wastewater onto or into the soil, or into a surface water. The explanatory memorandum [10] to article 4.25 of the Act includes the following: 'In future, the aim must be to prevent discharge of wastewater into the soil, a body of surface water or into the sea, where possible. For that reason, the order in council may incorporate a ban on discharging wastewater into the soil'. It was decided to incorporate the prohibition in this Regulation to reflect the quality criteria relating to the protection of the coral reef ecosystem referred to in article 2.1(2)(e) of the IAB BES.

[10] *Parliamentary Papers II*2009/10, 32473, no, 3.

Run-off water from a source other than a soil protection facility shall be returned to the immediate vicinity as quickly as possible. A soil protection facility may be a drip tray or a concrete surface, for example. Run-off water may also be stored temporarily. This run-off buffer can be put to good use at a later date. Stored run-off water should preferably be kept in a closed space to keep the number of mosquitoes to a minimum.
Discharge of run-off water from a source other than a soil protection facility, such as unpaved terrain, into the sea is forbidden under the terms of paragraph 2. This is a preventative measure intended to protect the coral reef ecosystem. This prevents sediment, sand or other fine rock being washed out to sea with surface run-off, which can lead to the suffocation of the coral. It occurs during intense showers, in particular, when it is impossible for all the water to infiltrate the soil, creating 'run-off'. Measures must be taken to prevent run-off. These may include collection of the surface run-off in suitably dimensioned infiltration facilities, either above or below ground.

Third and fourth paragraph

Wastewater that has been fed through a wastewater treatment system, may be discharged onto the soil or a body of surface water. An establishment may discharge domestic wastewater to a public wastewater system or a wastewater treatment system. A wastewater treatment system is a septic tank or other sewage treatment plant. As it is solely permitted to discharge wastewater to the sewerage system or a wastewater treatment system, discharge of wastewater from cesspits or soakaways is not permitted.

Fifth and sixth paragraph

As industrial effluent is incomparable with domestic wastewater in terms of biodegradability, it is preferable to treat it at source so that the treated wastewater can be safely returned to the environment once treated.

industrial effluent that cannot be treated by a sewage treatment plant or a wastewater treatment system must not be discharged into the public wastewater system. This situation may arise where there is no possibility of drainage to the public wastewater system or it is not possible to treat the effluent at a wastewater treatment system. The effluent will have to be collected by a tanker and transported to the processing location.

Article 2.2.2 Protection of the function of the public wastewater system and wastewater treatment system

Wastewater with insoluble substances may be produced by activities including the external washing of vehicles Wastewater may be discharged to the public wastewater system, where the water to be discharged does not contain a concentration of suspended solids that exceeds 300 mg/l. The aim of this is to prevent the public wastewater system from becoming clogged. To comply with the standard, a choice may be made to use a sediment pit as a wastewater treatment system (acknowledged measure).

In addition, greasy wastewater may constrain the effectiveness of the public wastewater system and the proper function of a wastewater treatment system. To prevent this, or keep it to a minimum, the third paragraph states that greasy wastewater must be fed through a well-dimensioned, well-maintained grease separator and sludge trap before any mixing with other

wastewater.

Article 2.2.3 Discharging wastewater from a soil protection facility

To limit a discharge containing oil from a soil protection facility on which work is taking place, the oily wastewater must be fed through a well-dimensioned oil separator and sludge trap before any mixing with other wastewater. Oily wastewater may be created by work such as servicing and repairing motor vehicles, and the delivery of fuel at a filling station. If the oil separator and sludge trap are to work properly, it is important that they are regularly serviced in accordance with the manufacturer's instructions and checked for defects accordingly. In addition, oil fractions and silt must be removed regularly. Oil fractions and silt are dangerous waste and must be submitted to a recognised collector. A recognised collector is designated under the terms of chapter 4 of the Act.

Articles 2.3.1 to 2.3.3 inclusive

Article 2.3.1 Preventative soil protection - general

Chapter 6 of the Act incorporates a duty of care. This article partially fulfils the terms of the duty of care where this concerns industrial activities harmful to the environment. The duty of care implies that the functional properties of the soil may not be compromised with contaminants.

Paragraphs one to five cover preventative measures that concentrate on avoiding soil contamination where possible, or else restricting it to a minimum. A soil protection provision consists of a drip tray a water-collection basin, a continuous soil protection facility or other leak-proof facility. A continuous soil protection facility will generally be made up of an asphalted or concrete surface. A drip tray must have sufficient capacity and be resistant to attack by substances to which it is exposed. The minimum capacity must be at least 110% of the volume of the device or the installation.

Article 2.3.2 Soil protection - underground tanks

This article states that the keeper of the establishment shall inspect parts of installations above ground him/herself for leaks and repair them where necessary. Inspection for leaks in underground pipe systems must be carried out by a business deemed to be a specialist in the field. The results of the inspection shall be retained by the controller of the establishment. These documents can be used as the basis for the competent authority to assess the extent to which this article has been complied with. To do this, it is necessary for the documents to be available and to be retained for a specific period. Provisions of this kind relating to expertise may be incorporated in the Island Ordinance.

Under the terms of the duty of care (see article 2.1 of the Act), any leak discovered must immediately be repaired, and may also have to be reported.

Article 2.3.3 Prevention of soil erosion

This article is an interpretation of article 6.1(1) preamble and (f) of the Act, which states that an Order in Council may be used in the interests of soil protection to set rules relating to actions that may cause erosion, compaction or salination of the soil as referred to in parts (a) to (e) inclusive. These actions may constitute undesired land use, such as the unnecessary removal of ground cover vegetation on a business park, or

preventing free-roaming livestock from accessing such vegetation. Maintaining vegetation is important in the retention of ground water and the protection of topsoil from erosion.[11]

Article 2.4.1

Article 2.4.1 Prevention and restriction of light pollution

This article includes a target standard aimed at reducing light pollution where possible, to preserve darkness and the dark landscape. Residents may be affected by light pollution, but that also applies to flora and fauna. For instance, light pollution has an influence on young turtles. They get disorientated by urban lighting.[12]There is no universal definition of light pollution, although to determine what can be considered an acceptable level of light pollution one option is to use the Light Pollution Guidelines (*Richtlijn lichthinder*) of the Dutch Foundation for Illumination (*Nederlandse Stichting Voor Verlichtingskunde, NSVV*).[13]

Articles 2.5.1 to 2.5.2 inclusive

Article 2.5.1 Prevention and restriction of noise pollution

To prevent noise pollution or to reduce it where possible, work must be carried out indoors as much as possible. Given the high ambient temperatures on the islands it is important to ventilate the space in which the work is carried out. This is why it was decided to specify that windows and doors must be closed, where possible, during loud, noisy work. The indoor temperature must also be acceptable.

Article 2.5.2 Noise limits

To prevent noise pollution, limit values have been set for daytime, evening and night. The limit values are based on the standards incorporated in the final report on environmental standards in the Netherlands Antilles (*eindrapport milieunormen Nederlandse Antillen*).[14] These values are adjusted to the values used in the pollution permits. When designating land types, such as kunuku, a land type not found in the European part of the Kingdom of the Netherlands, local designations used in the development plans for the islands are followed.[15]

Articles 2.6.1 to 2.8.1 inclusive

Article 2.6.1 Prevention and restriction of odour pollution

Odour pollution may arise due to a range of activities, such as preparation of foodstuffs, recreation and retail activities, repairing motorbikes and other motor vehicles, other motorised equipment, and operational testing of engines. The

[11] Debrot, A.O., Verweij, P.J.F.M and Henkens, R.J.H.G., *Staat van de natuur van Caribisch Nederland 2017 (*The State of Nature in the Caribbean Netherlands, 2017*),* Wageningen University & Research Rapport C086/17.

[12] *Achteruitgang koraalriffen Caribisch Nederland: oorzaken en mogelijke oplossingen voor koraalherstel* (Decline of coral reefs in the Caribbean Netherlands: causes and possible solutions for the recovery of coral) – Wageningen University & Research report C061/19.

[13] The Light Pollution Guidelines (*Richtlijn Lichthinde*r) 2020 is published on www.nsvv.nl/publicaties/richtlijn-lichthinder-2020/

[14] Final Report on Environmental Standards in the Netherlands Antilles – Air and Noise and Wastewater, Waste – *Werkgroep Milieunormering Nederlandse Antillen* – 11 June 2007.

[15] The Spatial Development plan for Bonaire can be consulted on www.bonaire-ro.nl/bestemmingsplannen/ruimtelijk- ontwikkelingsplan-bonaire/

risk of odour pollution cannot be excluded from any activity. In order to prevent odour pollution or, where this is not possible, to keep it to an acceptable level, one solution may be to extract and remove odours at roof level or to fit a deodorising installation. To determine what is an acceptable level for odour pollution, the immission standard for odour that is incorporated in the Final Report on Environmental Standards in the Netherlands Antilles may be used.[16]

Article 2.7.1 Prevention of vibration nuisance

The starting point for vibration nuisance is primarily that vibrations cannot be felt constantly. Continuous vibrations are generally caused by stationary installations, such as compressors or refrigerators, although nuisance or disruption can be caused by all kinds of equipment. Not all establishments will cause vibration nuisance. Vibration nuisance may be mitigated by using effective vibration dampers, such as a vibration mat. The standard may be defined in the Island Ordinance.

Article 2.8.1 Energy-saving measures

Energy-saving forms an important part of the fight to reduce emissions of greenhouse gases. The UN Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, the Paris Agreement and the subsequent obligations to reduce emissions at European level apply solely to the European part of the Kingdom of the Netherlands. This also means that the reduction of emissions on Bonaire, Sint Eustatius and Saba are not incorporated in the scope of application of the Dutch Climate Act.[17] The United Nations post-2015 Development Agenda [18] does apply on Bonaire, Sint Eustatius and Saba. This incorporates the Sustainable Development Goals (SDGs).

SDG 7[19] covers access to affordable and sustainable energy for everyone. Furthermore, on Bonaire, Sint Eustatius and Saba there has been substantial investment in the generation of energy from renewable sources (wind and solar) in the past few years. In 2019, the proportion of energy from renewable sources was 33 per cent of the total electricity production.[20] Making operations sustainable with energy-saving is one way to contribute to this. This is why this article was incorporated in the Regulation. Increasing sustainability is also encouraged with the certification programmes in which the islands have been participating for the past few years: Blue Destination (Bonaire)[21] and Green Destination (Saba and Sint Eustatius).[22] Sustainable energy and the reduction of greenhouse gases is the underlying principle of these certification programmes. The principle of taking adequate measures to drive down energy consumption was incorporated as a criterion for compliance with that philosophy. When taking energy-saving measures it is not just important that the technology to save energy is available, but also that it is administered effectively and maintained in order to achieve the greatest possible energy savings. The concepts of effective administration and maintenance imply that systems are installed and set up properly and maintained accordingly.

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16 Can be consulted via https://www.dcbd.nl/document/eindrapport-milieunormen-nederlandse-antillen-lucht-geluid-water- afvalwater-afval.

17 Parliamentary Papers II 2015-21, 34 534, no. 3, p. 21

18 United Nations Sustainable Development Goals – 2015.

19 United Nations Sustainable Development Goals – 2015.

20 Source: Statistics Netherlands (CBS) 2019.

21 Blue Destination certification programme is published at https://bluedestination.com/

22 Green Destination certification programme is published at https://greendestinations.org/about/destinations/gd-collection/

The Island Ordinance leaves the process of determining a method to calculate the payback period of the costs of investment for the Executive Council on the islands. This gives room to take into account the annual rates for electricity set by the Dutch Authority for Consumers & Markets (ACM) [23] when determining the method.

Articles 2.9.1 to 2.9.5 inclusive

Article 2.9.1 Packaging of hazardous substances

Article 2.9.1 specifies the properties that the packaging material used for hazardous substances must possess and the information that must be printed on it.

Section 5.2 of the ADR states how substances must be labelled. The UN number is a four-digit number that identifies a hazardous substance during transportation, in line with the United Nations Recommendations on the Transport of Dangerous Goods. Among other things, it is used in the ADR, the European Agreement Concerning the Carriage of Dangerous Goods by Road. Part 3 of Annex A to the ADR incorporates a list of substances with a specific UN number and an indication of the appropriate hazard class, plus the provisions relating to packaging, transportation etc. from the ADR that apply to the substance in question. The labelling of dangerous goods in a storage facility must be such that the hazard assessment of the substance in question is clearly expressed.
At some businesses, the packaging contains hazardous substances that do not comply with the transport legislation (and do not have to) because they are never transported. Packaging of this kind does not usually have a UN number.

Assessments of the requirements for a storage facility in such cases must be carried out on the basis of information in an application for a permit or available safety sheets.
In addition, the general requirements for such packaging must be incorporated in the permit such as, for example, the requirement for the packaging to be strong enough and suitable for the substances it contains, and for the packaging to be regularly inspected for leaks.

Article 2.9.2 Storage of hazardous substances in packaging and article 2.9.3 Loading hazardous substances

CMR substances as referred to in article 2.9.2 are those classified in the European standards as carcinogens, mutagens or toxic to reproduction. As the ADR classification assumes acute effects rather than the long-term effects on health, such substances are not classified as such in the ADR. Depending on other hazards, substances of this kind may be classified under the terms of the ADR. The CMR substance label must always bear the GHS08 (Health Hazard) pictogram, combined with the corresponding hazard statement for the hazard class in question.

The second paragraph includes an exception for operational stock. To

[23] Annual rates set for electricity are published at https://www.acm.nl/nl/onderwerpen/acm-op-bonaire-sint- eustatius-en-saba

determine what the operational stock is, PGS 15 [24] includes a number of starting points that are applicable to the definition of operational stock:

- operational stock must be strictly necessary;
- for each hazardous substance (where this relates to operational stock) one opened packaging unit may be available, plus one in reserve. If a working stock is made up of more than one packaging unit, then the above may be expanded to a working stock plus one reserve packaging unit.
- operational stock may not be located on a driving route for fork-lift trucks or other means of transport;
- operational stock may not obstruct escape routes.

Furthermore, the terms of PGS 15 specify that the operational stock must be stored with care. Hazardous or CMR substances that constitute operational stock and are present in a production or working space, or close to a process-critical installation must be stored in reliable packaging that is resistant to the dangerous substance in question and, where the operational stock is made up of an amount in excess of 50 l of combustible liquids of ADR class 3, the packaging must be stored above a drip pan or an equivalent provision.

The guidelines incorporated in PGS 31 [25] form the basis for the requirements for filling a tanker with dangerous substances. PGS 31 incorporates the stipulation that the terms of the ADR must be observed. The second paragraph of article 2.9.3 is also based on PGS 31.

Article 2.9.4 Firebreak the area surrounding a storage facility

The guidelines incorporated in PGS 9 [26] form the basis for the requirement in this article for keeping the vicinity of a storage facility free from vegetation

Article 2.9.5 Use of gas bottles and 2.9.6 Storage of gas bottles

The guidelines incorporated in PGS 15 [27] form the basis for the requirement in these articles for the labelling of gas bottles and for the storage of gas bottles.

Articles 2.10.1 and 2.10.2

*Article 2.10.1 E*xtinguishing agents *and article 2.10.2 Maintenance and inspection*

Interpretation of the extinguishing agents requirements follows the relevant requirements in the Fireproof Construction Policy document for Bonaire, Sint Eustatius and Saba respectively (the BES islands). Fire suppression equipment must be inspected once per calendar year for reliability, with the exception of new fire suppression systems. Such new systems do not need to be inspected in the first year: this can be demonstrated with the purchase receipt.

The guidelines incorporated in PGS 28 [28] form the background for the requirements included in relation to fire fighting in relation to delivery of

[24] Publicatiereeks Gevaarlijke Stoffen PGS15:2016, version 1.0 (September 2016).
[25] Publicatiereeks Gevaarlijke Stoffen PGS31:2020, version 0.2 (April 2020).
[26] Publicatiereeks Gevaarlijke Stoffen PGS9:2020, version 0.2 (April 2020).
[27] Publicatiereeks Gevaarlijke Stoffen PGS15:2016, version 1.0 (September 2016).
[28] Publicatiereeks Gevaarlijke Stoffen PGS28:2021, version 1.0 (August 2021).

liquid fuels at a filling station. The recommendation that there is at least one fire extinguisher per pump differs from the guideline incorporated in PGS 28, as there are no pumps with more than three service stands in the Caribbean Netherlands.

Articles 2.11.1 and 2.12.1

Article 2.11.1 Dust emissions

In the case of storage, transshipment, transportation, or breaking or sorting masonry in the open air, it is important to prevent dispersal of particles. To restrict pollution of the surrounding area, the material to be broken up must be kept damp by spraying it with water, for example. The surrounding area must also be protected from pollution with masonry and accumulation of dust, for example.

The fourth paragraph of this article states that nuisance in adjacent properties caused by dust from the workshop must be prevented by a system of mechanical dust extraction. The high local temperatures often mean that workshops are open to the elements. To prevent nuisance from dust, another option is direct dust extraction ('at source' capture).

Article 2.12.1 Limiting the use of raw materials

Raw materials, such as fresh water, sand and timber are scarce on the islands. Efficient use of raw materials puts less pressure on the ecosystem and land use. One option would be to encourage the reuse of construction and demolition waste, and the capture and retention of rain water.

Articles 2.13.1 to 2.13.3 inclusive

The rules for refrigeration systems are intended to prevent the release of fluorinated greenhouse gases, ozone-depleting substances and natural refrigerants into the air where possible. Emissions of fluorinated greenhouse gases into the atmosphere boosts the greenhouse effect, causing the average temperature of the earth to rise. The emission of ozone-depleting substances increases damage to the ozone layer.

The Montreal Protocol [29] sets out rules on the import, export, production and use of a large number of ozone-depleting substances. The Montreal Protocol has been in force in the Caribbean Netherlands since 10 October 2010. On 15 October 2016, representatives from more than 170 countries signed a binding accord on the gradual phasing out of the use of hydrofluorocarbons (HFCs) in installations including refrigeration and air conditioning systems at the summit of the UN Environmental Programme in Kigali.[30] This accord, also called the Kigali Amendment, is an amendment to the Montreal Protocol. Countries that ratified the accord are divided into three groups, depending on the time scale in which they have agreed to ban the use of HFCs. The Kigali Amendment is not yet in force on the BES islands. [31]The explanatory memorandum to the Act specifies that under the terms of Chapter 9 of the Act, a licensing scheme may be set up for the import, production, use and export of CFCs and other ozone-depleting substances as part of the implementation of the obligations under the terms of the Montreal Protocol.[32]

[29] Montreal Protocol on ozone-depleting substances – Montreal, 16 September 1987.

[30] Amendment to the Montreal Protocol on Ozone-depleting Substances, Kigali, 15 October 2016.

[31] https://verdragenbank.overheid.nl/nl.

[32] Parliamentary *Papers II* 2009-21, 534, no. 3.

In advance of this, this section incorporates all quality criteria that relate to the use of natural and synthetic refrigerants, and to proper maintenance of a refrigeration system.

Article 2.13.2 Maintenance and inspection of refrigeration systems and article 2.13.3 Leaks and the prevention of emissions

The operator of the establishment is responsible for proper maintenance and inspection of the refrigeration system. Inspection of the function and any leaks must be carried out by a business deemed to be a specialist in the field. The requirement to have maintenance carried out by a certified establishment, as in the European part of the Kingdom of the Netherlands, is not deemed to be feasible as there are no certification bodies (as yet) on the islands that can issue such certification. However, there are developments in preparation under which certification from the European part of the Kingdom of the Netherlands pertaining to performing procedures on refrigeration systems would be issued to businesses. In 2022, the first STEK certificate was issued on Curaçao. The Island Ordinance may make stipulations on expertise.

Article 2.13.3(1) states that the operator of the establishment shall take all necessary precautions to prevent leaks or emissions to the open air, or to restrict these to a minimum. These precautionary measures do, in any case, include the regular inspection of the installation for leaks.

The third paragraph states that whenever a leak is ascertained in the equipment, the equipment must be repaired without unnecessary delay.

Articles 2.13.4 to 2.13.9 inclusive

Articles 2.13.4 to 2.13.9 inclusive apply to the operation of a small combustion plant fuelled with standard fuels. Small combustion plants have a rated thermal input smaller than 1 MWth. Standard fuels include such substances as propane, butane and liquid fuels, including NEN-EN 14214-compliant biodiesel. The definition of a heating plant is transposed from the Activities Decree on Environmental Management (*Activiteitenbesluit milieubeheer*). Piston engines and emergency generators are also heating plants/generators. Expansion and pressure increase drive the pistons in an engine. The heat released on combustion is converted into mechanical work and is therefore used meaningfully.

Article 2.13.6 Emissions limits for small combustion plants

Emissions limits for nitrogen oxides (NO_x), Sulphur dioxide (SO_2) and total concentration are recorded. Emissions limits depend on the type of combustion plant (combustion engine, gas turbine) and its capacity. The calculation tool can be used to determine the emissions limits to which a heating plant must adhere. This tool can be found on the web site of the Environmental Information Point for the Caribbean Netherlands.

Article 2.13.7 Exemption from emissions limits
A number of exemptions have been included in relation to the application of emissions limits. Where a small combustion plant(including a generator) is in operation for fewer than 500 hours per year, the emissions limits specified in the table under article 2.13.6 do not apply. An hour meter or fuel meter may be used to demonstrate that an installation is in operation for fewer than 500 hours per year. The

operating hours must be logged for each month to comply with the hour criterion. If there is no monthly hour operation log, the system must comply with the emissions requirements. The exception to the 500-hour rule is formed by diesel engines, where they are used to generate electricity as a back-up for the public energy grid, for instance during peak demand times or to balance instability in the power grid. In that event, the diesel engine must comply with the emissions limits.

Article 2.13.8 Calculation of emissions limits

Emissions concentrations depend on the oxygen content in the flue gas. Dilution of flue gas with air leads to a lower emissions concentration and a higher oxygen concentration. So an oxygen reference content applies to emissions limits for heating plants.

Article 2.13.9 Measurement of emissions limits

At most once every four years, small combustion plants must undergo a metering of emissions limits. This is in line with the frequency for the metering obligations for this type of combustion plant in the Netherlands.

Articles 2.13.10 and 2.13.11

The rules for wet cooling towers are based on article 2.1(2), part I of the IAB BES. A wet cooling tower is described in the Regulation as an 'installation used to remove excess heat from production processes and buildings by means of the evaporation of water'. This description is taken from the Activities Decree on Environmental Management. The requirements relate to the whole installation, not just where the evaporation takes place. An example of a wet cooling tower is the cooling tower of a building. This helps to cool the building. A cooling tower is often large and high up. This aids draught (air supply and removal). It is often visible, except where it is enclosed by the building for aesthetic reasons.

Article 2.13.10 Investigating the risks legionella infection

The first paragraph states that the operator of an establishment with a wet cooling tower shall investigate the risks associated with the wet cooling tower. That investigation describes the risks that a wet cooling tower poses for the surrounding area. The second paragraph addresses the risk factors that have to be considered when carrying out the investigation.

In the European part of the Kingdom of the Netherlands, the obligation to institute an investigation is formulated generally in article 5(1) and 5(3) of the Dutch Working Conditions Act. This article states that the employer has a duty to carry out an assessment in relation to the risks associated with the work for the employees. This stipulation does not apply to the Caribbean Netherlands, which is why these rules have been incorporated in this Regulation. The rules are primarily aimed at protecting the environment, including preventing or, where that is not possible, restricting the risks to the surrounding area. Where possible, this follows the legislation in the European part of the Kingdom of the Netherlands.

AI sheet 32 and ISSO publication 55.3 contain examples of risk analyses and legionalla management plans that can be used as reference for the investigation.

Article 2.13.11 Restricting odour pollution

A plant for transiting, buffering, or reversing effluent is used in a sewerage system to feed wastewater to a higher level, or to transport it over a longer distance. Such installations may, for example, take the form of booster stations or vacuum stations, which are used to feed wastewater through pressure and vacuum-governed systems. On Bonaire, booster stations are used as part of the sewerage system. This article includes a target standard for restricting odour nuisance. Odour nuisance may arise during maintenance work on a booster station. Measures that can be taken include using air-treatment filters, such as a percolating filter or activated charcoal.

The issue of what an acceptable level is can be dealt with in the Island Ordinance.

Articles 3.1.1 to 3.1.5 inclusive

Article 3.1.2 Spraying vessels

The process of spraying the underwater hull (the lower part of a vessel that is usually in the water) with a high-pressure hose releases dyes and anti-fouling paint. These substances must be captured to prevent them from getting into the soil or reaching the nearest surface water by being blown or washed away. To prevent this, it is stipulated that work must be carried out where the surface forms an unbroken soil protection provision. The continuous soil protection facility may be made up of a concrete surface or sealed Stelcon plates.

To prevent wastewater and waste from being blown away, some form of wind-resistant feature must be used, such as a wind-break made from sails. Where it is not possible to take such measures, work of this kind may not be carried out in the open air.

Article 3.1.3 Code of conduct

In the first instance, the operator of the establishment is the person responsible for compliance with the environmental regulations. The owners and recreational users of the vessels carry out activities within the marina, such as maintenance, repair work and collecting waste for disposal. So it is important that these owners and recreational users act in a manner that is environmentally responsible. A code of conduct for specific situations, rather than just good information, coupled with inspection by a harbour master may make a contribution to this. There are a number of ways in which a code of conduct may be created. These include incorporation in the marina rules and regulations, and fitting clear instruction signs at a waste-collection point.

Article 3.1.5 Protection of surface water

Automated delivery of liquid fuels to vessels is not permitted. Filling a vessel with fuel under the inspection of specialist personnel is, however, permitted. In this respect, 'specialist' means that the personnel is aware of the hazardous properties of liquid fuels and knows how to use the available absorbent and other materials in the event of an incident.

Delivery of liquid fuel to vessels takes place above surface water. During the filling process the fuel may spill and land in the surface water. Apart from the fact that this must be prevented where possible by paying due care and attention, there must be sufficient resources available to deal with contamination of the surface water.
This means, for example, resources (such as absorbent material) to

restrict the consequences of spilling oil on the surface water.

Articles 3.2.1 to 3.2.5 inclusive

Article 3.2.2, Waste to be collected from vessels and article 3.2.3 Wastewater

Vessels that are moored in a marina form part of the establishment. The moorings that are administered by a marina also form part of the establishment. In relation to the collection of waste materials, a marina must have provisions available so that it can accept waste materials from vessels, even if these vessels are only temporarily using a mooring in the marina.

Bilge water is a mixture of water and oil that is created at the bottom of the engine room of a vessel. Bilge water that is discharged to a public wastewater system or a wastewater treatment system is subject to an emissions limit for oil. Where a well-maintained oil separator and sludge trap with proper dimensions are used there is no emissions limit. 'With proper dimensions' here means a good match for the volume of water. The oil fraction must be collected as hazardous waste and disposed of to a recognised collector, someone designated under the terms set out in Chapter 4 of the Act.

Article 3.2.5 General provisions for bathing facilities

This article contains the conditions for the operation of an establishment for bathing and swimming. These provisions have been set out in the interests of public health, specifically for those visiting the establishment. A bathing establishment is described in the Act as 'a place accessible to the public, or to individuals classified in categories designated in an Order in Council, which is configured to be used for swimming or bathing, forming an entity with the adjacent land, buildings, fixtures and fittings. This relates to both bathing in the building and bathing in the open air. The surface or depth is not relevant when designating a bath as a bathing establishment.
The term 'bathing establishment' therefore includes various baths and swimming pools, hot tubs, herbal baths and paddling pools.
There is currently no regulatory framework in the Caribbean Netherlands governing swimming and bathing water. The rules incorporated in this Regulation are a first step towards regulating swimming and bathing water and safeguarding public safety and hygiene, the target requirements for which are included in this Regulation, and can be developed in depth in the Island Ordinance. It lists the standards and the way in which hygiene and safety for swimming and bathing water can be safeguarded.
The first paragraph includes the starting points for treatment of swimming water, with a view to protecting the health of visitors to a bathing establishment. This is to do with levels of clarity, safeguarding good standards of hygiene to prevent the spread of infectious diseases and the safeguarding of an acceptable level of the toxicological quality of the swimming water.[33]

The second paragraph determines how the toxicological quality of the bathing and swimming water can be guaranteed.

Articles 3.3.1 and 3.3.2

Article 3.3.2 Discharging wastewater

[33] World Health Organization – Guidelines for safe recreational water environments VOLUME 2: SWIMMING POOLS AND SIMILAR ENVIRONMENTS – 2006.

In many cases, dentists no longer use amalgam fillings but when placing new fillings and drilling out the old fillings, there is a chance that mercury will get into the wastewater. The standard for amalgam separators is a retention level of at least 95%. This level is determined according to the test method described in the ISO 11143:2008 standard.

Articles 3.3.3 to 3.3.6 inclusive

Chemical cleaning of textiles, also known as dry cleaning, uses perchloroethylene (PERC), also known as tetrachloroethane.

Article 3.3.4 Scope

Solvents that are used in the chemical cleaning of textiles, such as PERC, are substances hazardous to soil. To prevent contamination of the soil with these substances, the activity will have to be carried out somewhere where the surface forms an nonpermeable soil protection facility. As a soil contaminant, PERC seeps into the lower strata of the soil, where it mixes with the groundwater, from where it can spread further. This means that sizeable areas can be contaminated from a single source. For this reason, it is important not to take any risks at all with these substances: they must be used somewhere where the surface forms an impermeable soil protection provision, and the wastewater must be collected and disposed of to a waste processor. Annon-permeable soil protection facility, under the terms of the Activities Decree on environmental management in the European part of the Kingdom of the Netherlands must be laid by a designated person or company with BRL SIKB 7700-certification. There are not (as yet) any designated organisations on the islands that are certified to BRL SIKB 7700 standard. The controller of the establishment must be able to show the competent authority, on demand, that the soil protection provision is impervious to fluids. This can be done with European or internationally-recognised certification. The impermeable soil protection provision may not be connected to the public wastewater system or to a wastewater treatment system.

Article 3.3.5 Wastewater

A small quantity of harmful solvents may get into the industrial effluent. That may be as a result of the cleaning process, in which water is added to the drum, or in conventional machines, where mains water is used as a coolant. Wastewater from the washing process shall not contain more than 0.1 mg of harmful solvents per litre. Any spillages or leaks of harmful solvents must not be discharged: they must be disposed of in another manner.

Articles 3.4.1 to 3.4.3 inclusive

Article 3.4.2

The operator of the establishment shall take the necessary measures or make provisions to prevent or restrict odour nuisance. The measures may constitute covering the stored animal manure or collecting and regularly disposing of them.

The article contains more in-depth provisions for the storage of animal manure. This includes manure from goats, donkeys, cattle, pigs and chickens, for example, that are (in part) fenced in. To protect the soil, organic fertilisers shall be stored on an unpaved surface, on a sufficiently-thick absorbent substrate. A thick layer of straw or other coarse, stemmy grass, such as elephant grass, satisfies these requirements. In addition, the store must be

sufficiently covered to protect it from rain, for instance with tarpaulin or under a roof. When removing the fertiliser, the absorbent substrate must also be removed. When new fertiliser is stored, this must also be on a new absorbent substrate. The removed substrate must be spread evenly over an unpaved surface so that the nutrients present in this layer are not lost.

Article 3.4.3 Wastewater

The discharge of wastewater from the storage of animal manure that cannot be pumped away, such as solid manure, is not permitted. By covering the store, it is possible to prevent run-off water from coming into contact with the fertilisers. This prevents wastewater from being released. Discharge to or on the soil is permitted where the wastewater is evenly spread over the soil. This prevents discharge from a point source.

Articles 4.1.1 to 4.1.5 inclusive

General transitional law that applies to all type-I and type-II establishments is incorporated in the Decree. The transitional law incorporated in this Regulation applies to a number of specific activities.

Article 4.1.1 Transitional law with relation to wastewater treatment system for wastewater

Transitional law has been incorporated to cover the installation and commissioning of wastewater treatment system for wastewater, where the establishment cannot be connected to the public wastewater system. The current legislation on both Bonaire and Sint Eustatius does not include an obligation for establishments to discharge to a wastewater treatment system. This makes this requirement stricter. It has been decided that the transition period will last five years. This gives businesses sufficient time to reserve funds for the required investment. This is also in line with the view of Business Federation Bonaire in the context of the internet consultation for the draft of the IAB BES [34].

Furthermore, one of the strategic targets in the Nature and Environmental Policy Plan for the Caribbean Netherlands 2020-2030 is that by 2030 there is legislation in place, enforceable on all three islands, incorporating a ban on cesspits, within the terms of which it is possible to inspect septic tanks and issue penalties for leaks. A transition period of five years fits within the realisation period for this target.

Article 4.1.2 Transitional law in relation to grease separators

Transitional law relating to the installation and commissioning of grease separators for greasy wastewater has been incorporated, where the establishment is situated outside an area with a sewerage network on Bonaire, or on the island of Sint Eustatius. Within the area with a sewerage network, under the terms of article 9 in the Island Resolution of General Scope, APR 17 2013, no. 2, in implementation of article 7(3) of the Wastewater Island Ordinance (Bonaire), the requirement that a connection to the sewerage system can only be made where a grease separator compliant with NEN-EN 1825/1 has been fitted applies. For that reason, the transition period does not apply to establishments located in the area with a sewerage network. Under

[34] Responses can be found at: Overheid.nl | Consultatie Inrichtingen en Activiteitenbesluit BES (internetconsultatie.nl, in Dutch).

the current legislation, there is no obligation to install a grease separator on Sint Eustatius and on Bonaire, outside the area with a sewerage system. The requirement in this Regulation is thus stricter. There will be a transition period of two years. This gives businesses sufficient time to reserve funds for the required investment.

Article 4.1.3 Transitional law relating to continuous soil protection facility

Transitional law has been incorporated for the laying of continuous soil protection facilities. Under the current legislation, there is no obligation for establishments to carry out activities that involve work with substances hazardous to soil above a continuous soil protection facility on either Bonaire or Sint Eustatius. This means that the requirement incorporated in the regulation is stricter. There will be a transition period of three years. This gives businesses sufficient time to reserve funds for the required investment.

Article 4.1.4 Transitional law with relation to sludge traps and oil separators

Transitional law has been incorporated for the installation of oil separators and sludge traps. Under the terms of article 20 of the Hindrance Decree Garages (Bonaire) [*Hinderbesluit garagebedrijven Bonaire*], businesses that repair and service motor vehicles must already comply with the requirement for installing an oil separator. No transition period applies to these establishments. For other establishments for which this requirement has been incorporated, current legislation on both Bonaire and Sint Eustatius does not include an obligation to install oil separators and sludge traps. This makes this requirement stricter. There will be a transition period of two years. This gives businesses sufficient time to reserve funds for the required investment.

Article 4.1.5 Transitional law with relation to energy saving measures

Transitional law has been incorporated in respect of measures to save energy, the payback period within five years. Neither on Bonaire nor on Sint Eustatius does the current legislation incorporate an obligation to take energy saving measures. This makes this requirement stricter. There will be a transition period of two years. This gives businesses sufficient time to reserve funds for the required investment.

Article 5.2 Date of effectiveness

This regulation shall come into force at the same time as the IAB BES.

STATE SECRETARY FOR INFRASTRUCTURE AND WATER MANAGEMENT
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