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KINGDOM OF BELGIUM

FEDERAL PUBLIC SERVICE

PUBLIC HEALTH, FOOD CHAIN SAFETY AND ENVIRONMENT

FEDERAL PUBLIC SERVICE

EMPLOYMENT, WORK AND SOCIAL CONCERTATION

**Royal decree regulating fumigations and defumigations**

PHILIPPE, King of the Belgians,

To all those present, and those to come, Greetings.

Having regard to the Law of 4 August 1996 on the well-being of workers in the performance of their work, Article 4(1), numbered by the Law of 7 April 1999 and amended by the Law of 28 February 2014;

Having regard to the Law of 21 December 1998 on product standards for the promotion of sustainable production and consumption patterns and the protection of the environment, health and workers, Article 9(1), as amended by the laws of 28 March 2003, 27 July 2011 and 16 December 2015;

Having regard to the Royal Decree of 14 January 1992 regulating fumigations;

Having regard to the opinion of the Superior Health Council, given on 2 February 2022;

Having regard to the opinion of the Federal Council for Sustainable Development, given on 15 February 2022;

Having regard to the opinion of the Special Consumer Advisory Commission, given on 15 February 2022;

Having regard to the opinion of the Central Economic Council, given on 15 February 2022;

Having regard to opinion of the High Council for Prevention and Protection in the workplace, given on 25 February 2022;

Having regard to the opinion of the National Labour Council, given on 29 March 2022;

Having regard to the Regional Government Consultation of 22 September 2022;

Having regard to Opinion No 240/2022 of the Data Protection Authority, given on 21 October 2022;

Having regard to Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services, Article 6(7)(a);

Having regard to notification No 2022/xxx/B addressed to the European Commission on... 2022;

Having regard to the opinion of the Inspector of Finance, given on 13 May 2022;

Having regard to opinion 71.764/1/V of the Council of State dated 12 August 2022, pursuant to Article 84, §1, subparagraph 1(2), of the Laws on the Council of State, consolidated on 12 January 1973;

Considering Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC;

Considering Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products;

On the proposal of the Minister of Employment, the Minister of Public Health and Agriculture and the Minister of the Environment,

We have decreed and hereby decree:

CHAPTER I. — Definitions and scope.

**Article 1.** For the application of this Decree, the following mean:

1. fumigation: all work relating to the use of a fumigation agent in a closed area or for soil disinfection in agriculture under protection or in the open air. They include, among others: the inspection and preparation of the space to be fumigated, the introduction of the fumigation agent, control during fumigation, ventilation and the lifting of the prohibition on access to fumigated space;

2. quarantine treatment: fumigation of goods, intended for export, at the request of an authority of the destination country, in order to prevent the spread of pests during international transportation;

3. defumigation: all works exclusively related to ventilation and the lifting of the access prohibition for goods which have been actively fumigated abroad or goods likely to release toxic gases, and the means of transportation in which they are located, which have not been defumigated or not sufficiently defumigated abroad;

4. fumigation agent: plant protection product or biocidal product with which, according to the act of authorisation of this product, fumigations may be carried out;

5. plant protection product: phytopharmaceutical product as referred to in Article 2 of Regulation (EU) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC;

6. biocidal product: biocidal product as referred to in Article 3 of Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products;

7. fixed fumigation devices: immobile device specially designed for fumigation and used for this purpose;

8. fumigation area: an area which is organised to carry out fumigations and which fulfils the operational requirements set out in Annex 1;

9. the space to be fumigated: the space that is fumigated. In the case of soil disinfection, this means the space where the soil to be fumigated is located. In case of disinfection of open-air soils, there is no space to fumigate;

10. fumigation under tarpaulin: fumigation of a batch of goods below a gas-tight sheet or tarpaulin;

11. means of transport: transport equipment, ships and vessels, and aircraft;

12. transport equipment: a container, a swap body, a vehicle, a railway wagon or any other comparable vehicle, which may be used in transportation;

13. ship and boat: any floating construction, including buildings without movement of water and seaplanes, used or fit to be used as a means of transport on water;

14. aircraft: a device capable of moving in the air;

15. director of fumigation: the natural person designated by his employer or customer (the sponsor) to organise and execute fumigation or defumigation and who, for this purpose, is assisted by a fumigation assistant.

The director of fumigation may be either:

- a worker of a fumigation undertaking who himself carries out the fumigation with the help of another worker,

- an employer who himself fumigates with the help of one of his workers,

- a self-employed person who himself carries out fumigation with the help of an independent caregiver,

- a self-employed person who does the fumigation himself with the help of another independent fumigation director;

16. fumigation assistant: the natural person who assists the director of fumigation in fumigation or defumigation, either as a worker or as a self-employed person;

17. sponsor: each natural or legal person on whose behalf a fumigation is carried out;

18. fumigation plan: a specific plan drawn up by the director of fumigation for the execution of a specific fumigation or defumigation as referred to in Annex 2; the fumigation plan shall include the risk analysis, prevention measures and the resulting working procedures and measurement strategy;

19. limit value: the occupational exposure limit value set out in Annex VI.1-1A to the Well-being at Work Code, or the minimum exposure value that is set out in the authorisation act of the fumigating agent. If the occupational exposure limit value and the minimum exposure value set out in the authorisation act are different, the lowest value shall be the limit value;

20. the Committee: the Committee for Prevention and Protection at Work, in the absence of a Committee, the union delegation, and in the absence of a union delegation, the workers themselves, in accordance with the provisions of Article 53 of the Law of 4 August 1996 on the well-being of workers in the performance of their work.

**Article 2.** § 1. This Decree applies to fumigations with plant protection products or biocidal products.

The act authorising the products referred to in subparagraph 1 shall state that the provisions of this Decree shall apply.

The list of products authorised to carry out fumigations is published on the website of the Directorate General of the FPS for Public Health which issued the authorisation.

§ 2. This decree applies to defumigations.

CHAPTER II. - General provisions.

Section 1. - Conditions for the execution of fumigations and defumigations.

**Article 3.** § 1. Fumigations may only be carried out by means of:

1. plant protection products which are authorised in accordance with the provisions of:

a) the Royal Decree of 28 February 1994 on the storage, placement on the market and use of agricultural pesticides; or

b) Regulation (EU) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC;

or, of

2. biocidal products which are authorised in accordance with the provisions of:

a) the Royal Decree of 4 April 2019 concerning the making available on the market and use of biocidal products; or

b) of Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products.

§ 2. Fumigation and defumigation may only be carried out by a fumigation director and at least one fumigation assistant.

The director of fumigation shall be either:

1. holder of a plant licence specific professional use for the active substance concerned, in accordance with the provisions of the Royal Decree of 19 March 2013 to achieve the use of plant protection products and additives compatible with sustainable development, provided that it is fumigation with a plant protection product;

or,

2. a registered user who meets the conditions imposed by Article 41 of the Royal Decree of 4 April 2019 on the making available on the market and use of biocidal products, and the specific provisions imposed by Article 38 of the same decree, in so far as it is a fumigation with a biocidal product.

The fumigation assistant is either:

1. holder of a plant licence specific professional use for the active substance concerned, in accordance with the provisions of the Royal Decree of 19 March 2013 to achieve the use of plant protection products and additives compatible with sustainable development, provided that it is fumigation with a plant protection product;

or,

2. a registered user who meets the conditions imposed by Article 41 of the Royal Decree of 4 April 2019 on the making available on the market and use of biocidal products, and the specific provisions imposed by Article 38 of the same decree, in so far as it is a fumigation with a biocidal product.

§ 3. Without prejudice to the applicable provisions of Chapter VI of Book VI, Title 1 of the Well-being at Work Code, the employer shall provide adequate training to all fumigation directors and fumigation assistants. If the fumigation director and/or the fumigation assistant are self-employed persons, they shall themselves be responsible for the application of the provisions of this paragraph.

This training is provided annually. The occupational physician-prevention adviser and other relevant prevention advisers and the Committee shall provide prior advice on the training programme and its implementation. If the fumigation director and/or fumigation assistant are self-employed, a doctor who has knowledge of the toxicology of fumigation agents shall give prior notice on the training programme and its execution.

The content of the training is easily understandable for fumigation directors and fumigation assistants. It shall provide them with the necessary knowledge and skills in the field of prevention and safety, in particular in relation to:

1. the properties of the fumigation agents applied, and the risks to safety and health in the event of exposure to these fumigation agents, the exposure limit values and any other legal provisions;

2. safe professional practices and measurement techniques during the various phases of fumigation;

3. the wearing of personal protective equipment, including the role, choice, limitations, proper use and practical knowledge of the use of environmentally independent respiratory protection devices;

4. requirements for health monitoring and maternity protection, including the prohibition of exposure of pregnant and breastfeeding women to fumigation agents;

5. emergency procedures, including first aid in the event of poisoning and accidents occurring during fumigations;

6. knowledge of this Royal Decree regulating fumigations and defumigations.

§ 4. Without prejudice to the application of paragraph 2, subparagraph 2 and paragraph 3, in order to be admitted to the position of director of fumigation for a particular type of fumigation, the director of fumigation shall have relevant professional experience of at least:

- 3 fumigations of this type carried out for soil disinfection;

- 10 fumigations of this type carried out within 3 months for other fumigations.

**Article 4.** § 1. Any fumigation and defumigation will be carried out in the presence and under the direction of a fumigation director.

§ 2. The fumigation director shall be assisted by at least one fumigation assistant during the following phases of the fumigation:

1. the inspection of the space to be fumigated;

2. the introduction of the fumigation agent;

3. ventilation;

4. the lifting of the prohibition on access to the fumigated space.

Without prejudice to what is laid down in this Decree, the director of fumigation shall organise the division of tasks between himself and his fumigation assistant(s).

During the introduction work of the fumigation agent and the ventilation work, at least one member of the fumigation or defumigation team, whether the fumigation director or a fumigation assistant, who does not carry out such work, shall remain outside exposure to fumigation agents, on alert, so that he can, if necessary, assist the other members of the fumigation or defumigation team who carry out this work.

§ 3. Before carrying out fumigation or defumigation, a risk analysis shall be carried out in accordance with the principles of Title 2 the general principles concerning welfare policy of Book I of the Well-being at Work Code.

In this risk analysis, it shall be verified whether it is possible to achieve the expected final result with a method less hazardous or with less impact on the environment than fumigation, provided that the method with less impact on the environment is not more dangerous to the health of persons involved in fumigation than the method with more environmental impact.

If and only if this proves impossible, authorised fumigation agents may be used in accordance with the conditions and restrictions of use as mentioned in the product authorisation act.

All the phases of fumigation referred to in paragraph 2, subparagraph 1, shall form part of this risk analysis.

All possible risks to the safety and health of persons involved in fumigation and defumigation are part of this risk analysis, including the hazardous characteristics of fumigation agents, working at heights, working in closed spaces, working with pressurised gas cylinders, managing heavy and cumbersome materials, such as rolls of plastic tarpaulins and gas cylinders, and other possible risks.

If fumigations are carried out on the ground of a sponsor, carrying out the risk analysis requires collaboration between the person performing the fumigation and the sponsor and other parties that may be involved.

The necessary preventive measures shall be determined on the basis of the risk analysis.

§ 4. Before carrying out fumigation or defumigation, written work procedures are established.

These working procedures shall take into account in particular the type of fumigation or defumigation to be carried out and the appropriate preventive measures to be taken, including the use of personal protective equipment and the emergency measures referred to in Section 6 of this Chapter.

Where the fumigation assistant and, where applicable, the director of fumigation are workers, it is their employer’s responsibility to establish these working procedures, to submit them to the relevant prevention advisers and to the committee and to communicate them to the workers concerned in accordance with the Well-being at Work Code.

Where the fumigation director is independent, he shall ensure that these working procedures are established and communicated to the fumigation assistant.

§ 5. For each fumigation and defumigation, the director of fumigation shall inform the fumigation assistant, whether employed, self-employed or a self-employed helper, of the risks of the fumigation agent used, of the preventive measures to be taken and of personal protective equipment, without prejudice to the provisions of Chapter VI of Book VI, Title 1 of the Well-being at Work Code, and the provisions of the third and fourth subparagraphs of paragraph 4.

§ 6. Risk analysis, prevention measures, resulting working procedures and the measurement strategy are set out in the fumigation plan.

**Article 5.** § 1. The director of fumigation completes the database following any fumigation and defumigation via the following link:

http://www.database-fumigations.be

The database shall be completed each time at least 48 hours before introduction of the fumigation agent. As regards transport equipment and quarantine treatments, this period is changed to 24 hours.

The date and time of fumigation or defumigation as introduced in the database correspond to the actual implementation of fumigation or defumigation.

§ 2. In particular, the database shall contain:

1. the date and time of introduction of the fumigation agent. In the event of a change in the date and time, the new date and time shall be entered immediately in the database;

2. the address where the fumigation or defumigation will be carried out;

3. the name of the owner of the space to be fumigated and/or the name of the sponsor of the fumigation or defumigation;

4. the surname and first name of the persons who carry out the fumigation or defumigation and their status as a worker, self-employed or self-employed helper, their phytolicence number, and the name of the fumigation firm;

5. the business name and authorisation number of the fumigation agent;

6. the type of fumigation/defumigation: Under tarpaulin — Container — Other;

7. the fumigation plan.

§ 3. The database is accessible to the following authorities:

1. the Directorate-General for Monitoring of well-being at work of the Federal Public Service Employment, Labour and Social Dialogue;

2. the Federal Public Service Public Health, Food Chain Safety and Environment.

Section 2. - General safety measures before and during fumigation.

**Article 6.** § 1. No later than 48 hours before the introduction of the fumigation agent, the sponsor, the owner of the land where the fumigation will be carried out, as well as the users of the adjoining spaces and other spaces where the fumigation agent is likely to be able to enter, shall be informed in writing by the fumigation director. As regards transport equipment and quarantine treatments, this period is changed to 24 hours.

On this occasion, the fumigation director informs them about:

1. the fumigating agent to be used and the active substance it contains;

2. the risks inherent in the fumigation agent;

3. the measures that will be taken to limit these risks;

4. the prohibition of entry into the spaces concerned before the lifting of the access prohibition;

5. any actions they must take after the lifting of the prohibition on access to the fumigated space.

§ 2. The sponsor, owner or operator of the land and the users or operators of the adjoining spaces and buildings shall acknowledge receipt of the notification referred to in paragraph 1.

The fumigation director shall keep proof of receipt of the notification.

**Article 7.** The introduction of the fumigation agent shall be made only after the receipt acknowledgement referred to in Article 6(2).

Never two different fumigation agents are introduced at the same time.

**Article 8.** § 1. The fumigation director shall evacuate persons, livestock and domestic animals, and packaged or unpacked food that is not fumigated, the space where the fumigation will be carried out, as well as any contiguous space or space where the gas could spread throughout the period of presence of the gas in the fumigated space.

If there are indications or even the slightest presumption that persons may be present in transport equipment, the transport equipment shall be open to detect the presence of persons.

§ 2. The space to be fumigated is made waterproof by the fumigation director in order to avoid the appearance of harmful effects or nuisances in general to the neighbourhood.

**Article 9.** Before the introduction of the fumigation agent, the fumigation director ensures that the sealing of the space or surface to be fumigated is effective.

To this end, he shall carry out a visual inspection, if necessary in combination with a pressure or smoke test or any other relevant test.

He checks if no one is present in the space to be fumigated.

The same applies to any adjoining area or any space where gas could spread.

**Article 10.** Immediately after the introduction of the fumigation agent, the fumigation director installs warning notices at the entrances to the fumigated space, as well as at the entrances to adjoining areas and spaces where the gas could spread.

These warning notices shall have dimensions of at least 0.5 by 0.5 m. and shall display a triangle with a black border on a yellow background, with the skull and crossbones symbol, as referred to in Annex III.6-1 and III.6-2 of the Well-being at Work Code concerning safety and health signs, having a dimension of at least 20 cm.

The following additional information is given on these warning notices:

1. the text “TOXIC GAS — ACCESS PROHIBITED — RISK OF DEATH”, to be mentioned, in characters of at least 6 cm, in the language(s) of the linguistic region where the fumigation or defumigation takes place and in English for reasons of proper understanding by all;

2. where applicable, the name of the employer of the fumigation director or of the undertaking of the fumigation director;

3. the name of the fumigation director and the telephone number where he may be reached.

The signs must be legible both during the day and at night and remain in place until the access prohibition is lifted.

The text on the signs is understandable for everyone present.

**Article 11.** § 1. After the introduction of the fumigation agent, the fumigation director closes the space where the fumigation takes place until the removal of the access prohibition, in such a way that access is made impossible.

The fumigation director shall also close any adjoining space or any space where the gas could spread, which, at a later stage, is not accessible subject to the following conditions:

1. the fumigation director has given permission;

2. the conditions under which it is possible to enter adjoining spaces are determined on the basis of the risk analysis and are described in the fumigation plan;

3. the necessary protective measures shall be taken.

§ 2. After the introduction of the fumigation agent, the fumigation director performs a control of the concentration of the fumigation agent outside the fumigated space.

He shall keep evidence of this at the disposal of the control officials.

He may leave the fumigation site only when the concentration of the fumigating agent outside the fumigated space is below the limit value.

§ 3. The following data shall be recorded in a register present at the fumigation site:

1. the date and time of introduction of the fumigation agent;

2. the results of the measurements of concentrations of the fumigation agent outside the fumigated space;

3. any actions taken if the limit value is exceeded;

4. the surname and first name of the fumigation director and of the fumigation assistant(s), and the signature of the fumigation director.

Any authorisation for access to a contiguous space or a space where the fumigation agent could spread shall also be recorded, indicating the date and time of the authorisation and the name and signature of the fumigation director concerned.

**Article 12.** In the course of the fumigation phases during which their presence is not required, the fumigation director and possibly the fumigation assistant shall be reachable at any time in order to visit the premises in case of an emergency.

**Article 13.** In the absence of the fumigation director, a monitoring task may be granted to other persons only if they cannot be exposed to gas and have received written instructions from the fumigation director, in a language they know, on the procedure to be followed in case of danger.

These persons may not carry out tasks reserved for the fumigation director or the fumigation assistant.

Access to fumigated or adjoining spaces is prohibited for them.

The premises where these persons may be staying during their monitoring task shall be isolated from the fumigated space and shall be at least 20 m away.

Section 3. - Lifting the access prohibition.

**Article 14.** The fumigation director shall lift the prohibition of access to fumigated spaces and any adjoining space or any space where the gas could spread, only after sufficient ventilation where, if necessary, the procedure set out in the act of authorisation is followed, where the concentration of the fumigant throughout the room is as low as possible, and the oxygen content is at least 19%, and after he has verified by suitable means that any danger inherent in the fumigating agent has disappeared.

When airing, among other things, the following must be taken into account:

1. the diffusion of gases of treated products;

2. the fact that gases heavier than air may remain in spaces below ground level, such as tanks and containment tanks, requiring forced ventilation.

When a limit value has been established for a fumigating agent or a limit value of an agent with similar physico-chemical and toxicological characteristics may be used as a reference for this fumigant, as described in Article VI.I.57 of the Well-being at Work Code, the conditions of Article 15 must also be met.

**Article 15.** § 1. In order to lift the prohibition on access to a workspace, the concentration of the fumigating agent in the entire space must be as low as possible. In any case, it is forbidden to exceed the limit value.

§ 2. For the lifting of the prohibition of access to an area where persons or domestic or farm animals permanently reside, the concentration of the fumigating agent in the entire space shall be as low as possible, and in any case shall not exceed one tenth of the limit value or not detectable with the prescribed measuring apparatus.

§ 3. For the lifting of access to any space other than the space referred to in § 1 or § 2, the concentration of the fumigating agent in that entire space must be as low as possible, and in any case shall not exceed the limit value.

§ 4. Analyses intended to measure the concentration of the fumigating agent and, where appropriate, to compare it with the limit value, shall be carried out in accordance with the procedures laid down in Chapter X (Occupational Exposure Limit Values) of Title 1 of Book VI of the Well-being at Work Code.

**Article 16.** § 1. All residues, empty packagings of fumigation agents are safely removed under the responsibility of the fumigation director, taking into account the hazardous properties of the fumigating agent.

All materials used in fumigation are ventilated until they are free of fumigating agents before being disposed of as waste or stored for future use.

§ 2. When using phosphine-generating preparations, the possibility that gas may still be released from products that have not fully reacted should be taken into account.

In this case, the residual products shall be disposed of by the fumigation director safely and evacuated under his responsibility to an appropriate place or device for temporary storage.

They shall be kept under the supervision of the fumigation director until they have reacted sufficiently to be transported to an approved waste treatment centre.

§ 3. All warning notices referred to in Article 10 shall be removed, except on fixed fumigation devices and in fumigation areas.

**Article 17.** The fumigation director shall provide the sponsor with a written certificate stating that he has verified that the space is again accessible and can be used for the intended activity without danger to safety and health.

The fumigation director retains a duplicate of this document, signed by the sponsor, or an electronic acknowledgement of receipt.

Section 4. - Personal protective equipment.

**Article 18.** § 1. For all activities for which it is impossible to ensure, through organisational measures or safety techniques, that individual exposure to the fumigation agent will remain below the limit value, the fumigation director and the fumigation assistant and any other person who is likely to be exposed, also when such persons are self-employed, are equipped with personal protective equipment. They use this personal protective equipment correctly.

§ 2. Personal protective equipment complies with the provisions of Title 2 Personal Protective Equipment of Book IX of the Well-being at Work Code, and in addition to the provisions of the act of authorisation of the fumigating agent and the safety data sheet of the producer of the fumigation agent.

Where a biocidal product is used for fumigation, the personal protective equipment is described in the Summary of Product Characteristics (SPC) of the fumigation agent concerned.

§ 3. Personal protective equipment which is independent of the environment is always available to the fumigation director and the fumigation assistant when they are at the place of fumigation or defumigation and are used when the results of the risk analysis indicate it.

The risk analysis specifies in which phases of fumigation or defumigation the use of respiratory and personal protective equipment is mandatory. This is fixed in the fumigation plan.

**Article 19.** Personal protective equipment and work clothing, each time they are removed after use, shall be checked and, if necessary, cleaned and stored so that the gases that escape from it may not constitute a danger of exposure.

Section 5. - Sanitary installations.

**Article 20.** § 1. Where the fumigation assistant and, where appropriate also the fumigation director, are workers, their employer shall ensure that such workers have adequate sanitary equipment in the vicinity of the place where they carry out fumigation or defumigation, in accordance with the Well-being at Work Code.

§ 2. Where the fumigation director and, where applicable, also the fumigation assistant are self-employed, their fumigation company or themselves shall take the necessary steps to ensure that they have adequate sanitary equipment in the vicinity of the place where they carry out the fumigation or defumigation.

§ 3. Where fumigation or defumigation is carried out on the move, adequate sanitary equipment may be mobile or made available by arrangement with the sponsor or operator of the fumigation or defumigation land.

§ 4. Without prejudice to the additional preventive measures to be taken following the results of the risk analysis, the following sanitary equipment shall be made available to the fumigation director and his fumigation assistant(s):

1. flowing drinking water;

2. a shower and a sink;

3. a toilet;

4. a changing room.

Section 6. - First aid in the event of poisoning and accidents.

**Article 21.** Without prejudice to the provisions of this Section, the provisions relating to first aid contained in Book I, Title 5 of the Well-being at Work Code and the provisions of Chapters III, IV, Section 1 and V of the Law of 4 August 1996 on the well-being of workers in the performance of their work, and their implementing decrees, shall apply.

**Article 22.** Prior measures shall be taken to organise assistance for possible cases of poisoning and accidents which may occur during fumigation or defumigation, in particular:

1. be in possession of the contact data of the competent rescue services,

2. written instructions,

3. the provision of adequate supplies and appropriate medicines, if they exist, taking into account the results of the risk analysis,

4. the drafting and making available of an identification card concerning the person carrying out the fumigation or defumigation and the safety data sheet concerning the fumigation agent, for the use of the rescue services.

**Article 23.** § 1. Workers involved in fumigation or defumigation shall receive written instructions from the employer, in a language they understand, on first aid in the event of poisoning or accidents with the fumigation agent used.

Self-employed persons involved in fumigation or defumigation shall draw up written instructions, in a language they understand, on first aid in the event of poisoning or accidents with the fumigation agent used.

§ 2. The written instructions referred to in § 1 shall be drawn up in consultation with the employer’s occupational prevention physician or, in the case of self-employed persons, with a doctor who has knowledge of the toxicology of fumigation agents.

§ 3. Instructions shall be executed when necessary and at least once a year as an exercise. They shall be reviewed at least once a year and when there are changed circumstances.

**Article 24.** At the place of fumigation or defumigation are the appropriate equipment and medicines ready for use to provide first aid in the event of poisoning or accident.

**Article 25.** Before starting fumigation or defumigation, effective means of communication are provided for first aid in the immediate vicinity of the location where the fumigation or defumigation takes place. The effectiveness of these means of communication is checked in advance.

**Article 26.** Access routes are provided and remain free for the arrival of rescue services.

**Article 27.** In order to be able to quickly take out accident victims from places that are difficult to reach, such as deep holds, the necessary equipment is put in place.

This equipment can consist of cranes, elevators, litters, harnesses, sufficiently long lifelines and stretchers.

**Article 28.** § 1. In consultation with the employer’s occupational prevention advisor or, in the case of self-employed persons, with a doctor who has knowledge of the toxicology of fumigation agents, an identification card shall be drawn up for the fumigation director and for the fumigation assistant(s) for the use of rescue services.

This card shall contain at least the following data:

1. the name and address of the person concerned;

2. the name of the fumigation agent used by the person concerned and any symptoms which may occur, possibly delayed, following excessive exposure to the fumigation agent;

3. the telephone number of the poison control centre and the competent doctors and care facilities.

§ 2. During fumigation or defumigation, the identification card of the fumigation director and that of the fumigation assistant(s) shall be kept in a place accessible to the rescue services.

**Article 29.** § 1. When the fumigation director and his fumigation assistant(s) are workers, it is their employer’s responsibility to comply with the provisions of this section.

§ 2. When the fumigation director and his fumigation assistant(s) are self-employed, they are themselves responsible for complying with the provisions of this section. They do this, if necessary, in collaboration with the sponsor.

Section 7. – Provisions on health monitoring.

**Article 30.** Without prejudice to the specific provisions of this Section, the provisions of Book I, Title 4 of the Well-being at Work Code shall apply.

**Article 31.** Prior to the start of the very first exposure to a fumigation agent, each worker is subject to a prior health assessment.

This assessment shall take into account, inter alia, any hypersensitivity to the fumigation agent to be used, the use of respiratory protection and the ability to apply the instructions referred to in Article 23(1).

When the fumigation director and, if applicable, the fumigation assistant are self-employed, they shall undergo a prior health assessment by a doctor who is aware of the toxicology of fumigation agents, prior to the very first exposure to a fumigation agent. This assessment shall take into account the elements referred to in subparagraph 2.

Each time after a period of increased activity, the occupational prevention counsellor-physician may increase the frequency of periodic health assessments, as provided for in Article I.4-32, § 3 of the Well-being at Work Code.

At least once a year, fumigation is monitored by a competent prevention counsellor in accordance with Article II.1-6, § 1(1), c) of the Well-being at Work Code.

Section 8. - Measures in emergency situations and in the event of serious and immediate danger.

**Article 32.** § 1. Without prejudice to the specific provisions of this Section, the provisions of Book I, Title 2, Chapter V of the Well-being at Work Code shall apply.

§ 2. The employer shall develop an internal emergency plan to be implemented for the protection of workers at the place of fumigation.

If the fumigation director and/or his fumigation assistant are self-employed, they are themselves responsible for compliance with the provisions of this section.

If fumigations are practised on the land of a sponsor, the development of the internal emergency plan requires collaboration between the person carrying out the fumigation, the sponsor and any other interested parties.

§ 3. The internal emergency plan is based on procedures appropriate to hazardous situations and possible accidents or incidents that are specific to the nature and place of fumigation or defumigation.

In drafting these procedures, the employer seeks the advice of the occupational safety prevention advisor and the Committee.

Emergency procedures shall be carried out where necessary and at least once a year as an exercise. They shall be reviewed in the event of modified circumstances.

CHAPTER III. — Specific provisions for certain fumigations and derogations from the general provisions.

Section 1. - Specific conditions for fixed fumigation systems.

**Article 33.** § 1. Fumigations in fixed fumigation systems are only permitted if they are gas-tight and can be ventilated without endangering humans, animals and the environment.

They cannot be installed in spaces where people must stay permanently.

The presence of gases concerned is constantly monitored around these systems.

If the limit values are exceeded, an alert shall be given clearly and perceptibly.

These warning systems shall be checked and calibrated in accordance with the manufacturer’s specifications.

When a temporary system, such as a structural and hard-walled tent, is used permanently, this system shall be considered a fixed fumigation system.

§ 2. All control devices of the fixed fumigation system are located outside the space to be fumigated.

In the event of an emergency, these fumigation control systems are also located inside the space to be fumigated.

§ 3. Without prejudice to regional environmental protection provisions, exhaust gases shall be discharged at least 1 metre above the top of a saddle roof or 5 metres above a flat roof, but always at more than 10 metres above ground level.

§ 4. The suction slots of the air-conditioning or ventilation systems are sufficiently distant from the exhaust pipe so as to rule out pollution from the feed.

**Article 34.** In the case of the use of easily flammable liquids or combustible gases as fumigating agents, the regulations in force in this regard shall be complied with, in particular those of Title 4 relating to places presenting risks due to explosive atmospheres in Book III of the Well-being at Work Code, and those of the General Regulations on Electrical Installations.

**Article 35.** The proper functioning of the fixed fumigation system is checked before each fumigation by the fumigation director.

**Article 36.** The provisions of Articles 5, 6 and 7 shall not apply to fixed fumigation systems.

Section 2. - Specific conditions for fumigation of transport equipment.

**Article 37.** § 1. Transport equipment may only be fumigated in a fumigation area.

Transport equipment to be fumigated are made gas-tight and are installed so that gas tightness can easily be created and controlled from all sides. For this purpose, a distance of at least 80 cm between the transport equipment shall be respected.

The fumigation manager checks whether the transport equipment to be fumigated is gas-tight and locks the entrances. Then the fumigation agent is introduced.

§ 2. As regards containers in particular, stacking of containers for the purpose of fumigation or defumigation shall be permitted only when it is apparent from the risk analysis that this provision does not entail any risks and that all the steps that are carried out during fumigation or defumigation can be fully and safely carried out.

§ 3. When fumigation or defumigation is ongoing, it is prohibited to walk on top of transport equipment.

When fumigation or defumigation is ongoing, it is prohibited to remove transport equipment and to add transport equipment.

§ 4. Transport equipment shall be fumigated in open air, on a gas-proof surface which is free of bumps, holes or dangerous inclined planes and is fixed, stable and non-slippery, respecting a safety perimeter of 10 meters around the transport equipment. This perimeter is fully surrounded by a solid fence of at least 2 meters high and must be inaccessible.

By way of derogation from subparagraph 1, transport equipment shall be fumigated in a building on a gas-tight surface which is free from bumps, holes or dangerous inclined planes and which is fixed, stable and non-slippery, when fumigation cannot be carried out in the open air due to climatological circumstances, too low temperatures, and according to the provisions for use and restrictions of use determined in the authorisation act of the fumigating agent, respecting a safety perimeter of 10 metres around the transport equipment. This perimeter is fully surrounded by a solid fence of at least 2 meters high and must be inaccessible.

**Article 38.** The warning notices referred to in Article 10 shall be affixed to each entrance of the transport equipment and to each entrance of the fumigation area.

**Article 39.** § 1. The fumigation director shall ventilate and lift the prohibition on access to the transport equipment after having ascertained that the concentration of the fumigating agent meets the conditions of Articles 14 and 15.

In the case of aeration of transport equipment, care shall be taken to ensure that the concentration of the fumigating agent outside the fumigation area never exceeds the limit value. For this purpose, directly after the opening of 10 or more transport equipment, measurements of the concentration of the fumigating agent shall be carried out, downwind and at the extreme limits of the fumigation area.

These measurements shall be repeated every 10 minutes until it is possible to ensure that during the subsequent aeration of the transport equipment, the limit value will never be exceeded.

Ventilation openings are cleared immediately after the access prohibition has been withdrawn.

§ 2. In the register referred to in Article 11(3), which is present at the place of fumigation, the following data shall be recorded during ventilation:

1. the date and time of the ventilation;

2. the results of the measurements of concentrations of the fumigation agent outside the fumigation area;

3. any actions taken if the limit value is exceeded;

4. the surname and first name of the fumigation director and of the fumigation assistant(s), and the signature of the fumigation director.

**Article 40.** As long as the access ban has not been lifted, transport equipment is not moved.

Section 3. - Specific conditions for fumigation of aircraft.

**Article 41.** Aircraft may be fumigated only in open air, at a minimum distance of 10 metres from each building and provided that they are gas-tight.

The fumigation director checks whether the aircraft is gas-tight, locks the access and marks out the 10-metre security perimeter with beacons. Then the fumigation agent is introduced.

**Article 42.** The warning notices referred to in Article 10 shall be affixed to each side of the aircraft.

**Article 43.** The fumigation director shall vent and lift the access prohibition after finding that the concentration of the fumigating agent meets the conditions of Articles 14 and 15.

For ventilation and lifting of the aircraft access prohibition, special attention is paid to the desorption of residual gases due to the reduced pressure in the cabin at the cruising altitude.

**Article 44.** As long as the access prohibition has not been lifted, aircraft are not moved.

Section 4. - Specific conditions for fumigation of or in ships and boats.

**Article 45.** Fumigation or defumigation of ships and boats may be carried out only at a mooring place indicated by the port authorities.

For fumigations or defumigation on rivers and watercourses outside ports, the place of mooring shall be designated by the competent person.

**Article 46.** All people leave the ship or boat.

All materials that are likely to absorb the gas and then release it, such as the bedding in the crew’s cabins, are unloaded or insulated so that the gas cannot enter it.

The captain or his attendant makes a round to check that all the non-competent persons have disembarked.

The absence of any non-competent person on board shall be confirmed in writing by the captain or his attendant.

**Article 47.** Supervision is organised by the sponsor during fumigation to prevent non-competent persons from boarding.

**Article 48.** The warning notices referred to in Article 10 shall be affixed to each gangplank to the ship or boat.

On board, these signs are affixed to the accesses to the spaces to be fumigated.

Signs shall be affixed every fifty metres along the ship or boat with the instruction “Prohibition to moor”, as well as the warning notices referred to in Article 10.

**Article 49.** At the end of the predefined action time of the fumigation agent, the fumigation director and his fumigation assistant(s) carry out the ventilation.

The director of fumigation shall lift the prohibition on access to fumigated spaces after finding that the concentration of the fumigating agent meets the conditions of Articles 14 and 15.

The lifting of the access prohibition follows measures, taking into account that some residual gases only escape slowly from porous and fine grain materials, especially at low temperatures (less than 10°C).

**Article 50.** The ship or boat may not leave its mooring place until the prohibition on access to fumigated spaces is lifted.

The fumigation director shall provide the captain or his attendant and the sponsor with a document indicating that access to the ship or boat is authorised.

**Article 51.** The provisions of Articles 45 to 50 shall not apply to fumigation and defumigation of seagoing vessels with an IMO registration number ‘in transit’, which must meet the International Maritime Organisation’s ‘Recommendations on the safe use of pesticides in ships’.

Section 5. - Specific conditions for soil disinfection in agriculture.

**Article 52.** By way of derogation from Article 7, two different fumigating agents may be applied to two adjacent plots of land, if the risk analysis shows that this can be done without additional risk.

**Article 53.** The provisions of Articles 9 and 14 shall apply only to fumigated space and, where applicable, to spaces where the gas is likely to spread, provided that the soil is duly covered and the space is gas-tight.

The preparation of the fumigation as well as the installation and removal of the prescribed gas-tight tarpaulin may be carried out by a fumigation assistant holding a phytolicence “Professional Use” or “Professional Use Assistant” under the supervision of the fumigation director.

**Article 54.** By way of derogation from Article 10, warning notices shall be affixed only at accesses to the spaces in which the soil is disinfected.

Section 6. - Specific conditions for tarpaulin fumigations

**Article 55.** The lot of goods is covered with a gas-tight sheet or tarpaulin and is stored on a gas-proof surface that is free of bumps, holes or dangerous inclined planes and is fixed, stable and non-slippery, respecting a safety perimeter of 10 metres around the tarpaulin.

This perimeter is fully surrounded by a solid fence of at least 2 meters high and must be inaccessible.

**Article 56.** § 1. In the case of tarpaulin fumigation in a room, this room shall be considered as the space to be fumigated referred to in Chapter II.

The adjoining spaces of this room are considered to be the adjoining spaces of the space to be fumigated referred to in Chapter II.

All adjoining spaces are closed by the fumigation director, and may only be entered in case of emergency and with the permission of the fumigation director, provided that the necessary protective measures are taken and under the conditions described in the fumigation plan.

§ 2. Fumigation under outdoor tarpaulin shall be applied only to work equipment, as referred to in Article IV.1-1. of the Well-being at Work Code, where they cannot be placed in a room because of their size and where it is apparent from the risk analysis that this provision is not a risk and all the steps that are carried out during fumigation or defumigation can be fully and safely performed.

CHAPTER IV. — Defumigations.

**Article 57.** The goods and transport equipment in which they are located, which have been fumigated abroad and which have not been defumigated there, shall have an adequate mark in accordance with the international transport legislation in force, which shall remain affixed to the transport equipment until the gas transport equipment has been ventilated, and the goods or materials which have been fumigated have been unloaded.

Handlers/operators/managers of transport equipment without this mark must take into account the possibility that they may still contain dangerous gases.

These are, on the one hand, actively fumigated transport equipment where toxic gases have been introduced and, on the other hand, transport equipment in which toxic gases from the goods are released.

Operators/handlers/managers of such containers/transport equipment suspected of including gases must identify and assess the risks to the safety and health of workers when entering and/or unloading transport equipment.

On this basis, the necessary preventive measures must be taken to control these risks, after consulting the competent prevention department, in accordance with the principles set out in Title 1 on chemical agents of Book VI of the Well-being at Work Code.

**Article 58.** § 1. The carrier, to whom the owners of the goods or the owners of the means of transport have entrusted the transport of their goods and the means of transport, shall designate, before any transport, a director of fumigation at the expense of the owners of goods and the means of transport, in order to defumigate the transport equipment or other means of transport and the goods, if possible before any transport and at least at the latest when the means of transport are opened.

The carrier may agree, prior to any carriage, with the owners of the goods or the owners of the means of transport, that the owners of the goods designate a fumigation director to defumigate the transport equipment, or other means of transport and the goods, if possible before any transport and at least at the latest when the means of transport are opened.

The carrier and the owners of the goods and the owners of the means of transport shall inform each other of the designation of the fumigation and defumigation director and shall communicate with each other, in the most appropriate manner, the contact details of the designated fumigation director and the certificate referred to in Article 17.

§ 2. Any authority competent to open the means of transport for the purpose of checking its contents may designate a fumigation director, in order to defumigate the means of transport and the goods therein, at the expense, as the case may be, of the carrier or owners who have not had the defumigation carried out by a fumigation director.

**Article 59.** § 1. The fumigation director determines the time and location of defumigation and obtains the written approval of the sponsor.

§ 2. The place where defumigation takes place is left during the defumigation phase and access to it is prohibited and closed.

The fumigation director shall install a security perimeter with a fence of at least 2 metres in height at a distance of 10 meters from the means of transport to be defumigated.

**Article 60.** The fumigation director shall affix the warning notices to the transport equipment or other means of transport to be defumigated, in accordance with the provisions of Article 10.

**Article 61.** The fumigation director shall lift the prohibition of access to the container or other means of transport in accordance with the provisions of Articles 14, 15, 16 and 17.

If residual products and/or empty packages of fumigation agents are found in transport equipment whose access prohibition has been lifted, such residual products and/or empty packages shall be disposed of, either by the fumigation director or his assistant, or under his responsibility and by persons trained by him.

**Article 62.** The provisions of Articles 18 to 32 shall apply when defumigating.

CHAPTER V. — Control and penal provisions.

**Article 63.** § 1. Infringements of the provisions of this Decree shall be sought, detected, prosecuted and punished in accordance with the provisions of the Law of 21 December 1998 on product standards for the promotion of sustainable production and consumption patterns and the protection of the environment, health and workers.

§ 2. The officials designated in the Royal Decree of 16 November 2000 appointing officials of the Environmental Affairs Department to carry out inspection tasks shall be designated to monitor compliance and to establish infringements of this Decree.

**Article 64.** § 1. By way of derogation from Article 63, infringements of Articles 3(3), 4, §§ 3 to 6, 18 to 32, 34, 38, 42, 48, 60 and 62, shall be sought, ascertained, prosecuted and punished in accordance with the Social Penal Code.

§ 2. The social inspectors of the Well-being at Work Control Division of the Federal Public Service Employment, Labour and Social Concertation, are appointed to monitor compliance with and detect infringements of the provisions relating to the protection of the well-being of workers at work.

CHAPTER VI. — Repeal and final provisions.

**Article 65.** The Royal Decree of 14 January 1992 regulating fumigations, as amended by the Royal Decrees of 5 September 2001, 22 May 2003 and 3 October 2005, is repealed.

**Article 66.** This Decree shall enter into force on 1 April 2023.

**Article 67.** The Minister for employment, the Minister for public health and the Minister for Environment, are responsible, each with regard to him, for the execution of this decree.

Done in Brussels on

By the King:

Deputy Prime Minister and Minister of Economy and Labour,

Pierre-Yves DERMAGNE

Deputy Prime Minister and Minister of Social Affairs and Public Health,

Frank VANDENBROUCKE

The Minister for Climate, Environment, Sustainable Development and the Green Deal,

Zakia KHATTABI

Annex 1

**Operating and equipment requirements for a fumigation area**

Operation

For each fumigation area, at least one “fumigation area coordinator” shall be designated to coordinate the safety of operation in the fumigation area. The fumigation area coordinator has received appropriate training to perform this function.

The content of the training is easily understandable for fumigation area coordinators and provides them with the necessary knowledge and skills in the field of prevention and safety, in particular as regards:

* the properties of fumigation agents applied and the risks to safety and health in the event of exposure to these fumigation agents, the exposure limit values and any other legal provisions;
* the measures which are applicable in and around the fumigation area in emergency situations and in the event of serious and immediate danger;
* the knowledge of this AR.

The fumigation area coordinator shall, at least once a year, carry out a thorough examination of the fumigation area and participate in the annual exercise of emergency procedures in the fumigation area for which he has been appointed.

Equipment

The fumigation area consists of a surface where fumigated transport equipment can be installed and a safety area surrounding it. The fumigation area must be fully surrounded by a solid fence of a minimum height of 2 metres and must be inaccessible in the absence of activities. In the enclosure of the fence, it is impossible for the gas to accumulate, and the gas must be able to pass through the fence. The fence may not present an obstacle for the removal of gas during ventilation.

The maximum permitted area where fumigated transport equipment can be installed is permanently marked. This entire surface is free of bumps, holes or dangerous inclined planes and is fixed, stable and non-slippery.

The distance between the marking around the maximum permitted area where fumigated intermodal transport equipment can be installed and the fixed fence is at least 10 metres. This is the safe area.

Workers’ premises are located at least 20 metres from the fumigated transport equipment.

At the entrance to the fumigation area and on each side of the fumigation area, signs shall be affixed with the contact details of the fumigation area coordinator(s), so that they can be contacted in case of emergency. These coordinators can be reached 24 hours a day, 7 days a week.

Warning notices are affixed every 50 metres to the fence surrounding the fumigation area. These warning notices have dimensions of at least 0.5 m by 0.5 m and display a triangle with a black border on a yellow background, with the skull and crossbones symbol. This illustration has a dimension of at least 20 cm. The following additional information is also mentioned on these warning notices: the text “TOXIC GAS — ACCESS PROHIBITED — RISK OF DEATH”, to be mentioned, in characters of at least 6 cm, in the language(s) of the language region where the fumigation area is located, and in English.

A windsock that meets the standards of the International Civil Aviation Organisation must be present and well visible from the fumigation area.

Access to fumigation area

Access to the fumigation area is locked when fumigating or defumigating of transport equipment. Only the fumigation director(s) and the fumigation assistant(s) have access to the fumigation area to perform essential activities when fumigation or defumigation of transport equipment.

When the fumigation director and the fumigation assistant work in the fumigation area, the necessary steps shall be taken to prevent other persons entering the fumigation area.

At the end of any activity in the fumigation area, the fumigation area is immediately locked.

ANNEX 2

**Specific conditions for the drafting of a fumigation plan,**

**referred to in Article 1(16)**

A fumigation plan shall be drawn up in writing for each fumigation and shall be adapted to each modification of the fumigation agent used, the space to be fumigated, the goods to be fumigated or any other relevant parameter.

The fumigation plan shall contain at least the following:

* The place of execution and the contact details of the sponsor
* The name and contact details of the fumigation director, and, if applicable, also the contact details of his employer
* Detailed schedule for execution:
  + Start preparation
  + Start fumigation
  + Start defumigation/ventilation
  + Lifting of the planned access prohibition
* Reason for treatment, target organism and justification for the need for fumigation
* Fumigation agent to be applied and concentration and volume:
  + Conditions (temperature, deadline, etc.)
* Safety and Environment
  + Risk analysis and resulting prevention measures
  + Working procedures that apply
  + A detailed overview of the acts to be implemented by phase
    - Inspection and preparation of the space to be fumigated, including sealing control
    - Introduction of the fumigation agent
    - Monitoring during fumigation
    - Ventilation/defumigation of the fumigated space
    - Lifting the introduction of access to the fumigated place
  + Measurement strategy and records of fumigation agent concentrations
  + The warning notices used and the places where they are affixed
  + Personal protective equipment and phases during which wearing them is required
  + Conditions for access to adjoining spaces and spaces where the fumigation agent could enter
  + Measures taken as part of first aid at the fumigation site
  + The internal emergency plan that is applicable at the fumigation site
* Notifications to the authorities and the Goods captain’s department