

HYDROGEN CYANIDE (FUMIGATION)

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Fumigation of Buildings

REGULATIONS, DATED THE 6TH DAY OF NOVEMBER, 1952, MADE BY THE MINISTER OF HOME AFFAIRS UNDER SECTION ONE OF THE HYDROGEN CYANIDE (FUMIGATION) ACT (NORTHERN IRELAND), 1938.

1952. No. 213

I, THE RIGHT HONOURABLE BRIAN MAGINESS, O.C., Minister of Home Affairs for Northern Ireland, in pursuance of Section one of the Hydrogen Cyanide (Fumigation) Act (Northern Ireland), 1938, do hereby make the following Regulations :—

1.—(1) These Regulations may be cited as the Hydrogen Cyanide (Fumigation of Buildings) Regulations (Northern Ireland), 1952, and shall come into operation on the first day of December, 1952.

(2) In these Regulations —

- “ absorbent liquids ” means liquids, not being foodstuffs, of such a kind and so stored as to be liable to absorb the fumigant ;
- “ authorised person ” means any person directly engaged in the supervision or carrying out of the fumigation or who is in possession of a certificate of authority in Form A of the forms set out in the First Schedule to these Regulations permitting him, on behalf of a government department or of a medical officer of health, to attend fumigations ;
- “ building ” means any building, hut, shed or similar structure ;
- “ exposed foodstuffs ” means foodstuffs, whether liquid or not, which are so stored as to be exposed to the fumigant ;
- “ first aid ” means resuscitation of persons suffering from poisoning by the fumigant and self-protection from the fumigant, and includes the use of the apparatus provided in pursuance of Regulation 9 for the administration of oxygen and carbon-dioxide ;
- “ fumigant ” means hydrogen cyanide from whatever source evolved ;
- “ fumigation ” means the fumigation with hydrogen cyanide of a building or part of a building, or anything contained in a building ;
- “ fumigation area ” means the building or part of a building in respect of which the requirements of Regulation 3 as to the giving of notice have been complied with ;

- “harbour authority” means any person or body of persons in whom are vested by or under any Act of Parliament powers and duties of improving, maintaining or managing a harbour or, where as respects any dock within a harbour such powers and duties are separately vested by or under any Act of Parliament in any person or body of persons, that person or body of persons ;
- “health authority” means a health authority constituted under the Public Health and Local Government (Administrative Provisions) Act (Northern Ireland), 1946 ;
- “medical officer of health”, except in Regulation 4, means the medical officer of health of the health authority within whose area it is proposed to carry out the fumigation or, where it is proposed to carry out the fumigation within the area of a port sanitary authority, of that authority ;
- “occupier” means the occupier of the fumigation area, and includes a duly authorised servant or agent of the occupier ;
- “operator” means the person designated in writing by the undertaker to be in charge of the fumigation ;
- “port sanitary authority” means a port sanitary authority constituted under the Public Health (Ireland) Act, 1896 ;
- “risk area” means the fumigation area and any structure or space from which, in the opinion of the operator, persons other than authorised persons should, having regard to the danger to be apprehended from the penetration of the fumigant from the fumigation area, be excluded, and, except where the agreement in writing of the medical officer of health to the contrary as regards any particular room or enclosed space is obtained, includes all rooms and other enclosed spaces with any wall, floor or ceiling contiguous with the fumigation area ;
- “undertaker” means any person who, under contract or otherwise, by himself or by his agent, undertakes the fumigation.

(3) Nothing in these Regulations shall apply to —

- (a) the fumigation of grain by the admixture therewith of calcium cyanide, or
- (b) a fumigation carried out exclusively for horticultural purposes in a case where no part of the building in which the fumigation takes place is used for human habitation.

(4) The Interpretation Act, 1889 (a), shall apply to the interpretation of these Regulations as it applies to the interpretation of an Act of the Parliament of Northern Ireland.

2. In connection with any fumigation the requirements of Regulations 3 to 12 of these Regulations shall be observed.

(a) 52 & 53 Vict. c. 63.

3.—(1) Before commencing the fumigation the undertaker shall complete and sign three copies of a notice of the fumigation in Form B of the forms set out in the First Schedule to these Regulations and shall send one copy —

- (a) except where the building in which the fumigation is to be carried out is situated within the area of a harbour authority, to the officer in charge of the police station for the police district in which the building is situated, or,
- (b) if the building is situated within the area of a harbour authority, to that authority,

and shall send one copy to the medical officer of health.

(2) Any document required by paragraph (1) of this Regulation to be sent to a person therein specified shall be despatched so as to reach that person not less than forty-eight hours before the commencement of the fumigation unless in any case of special urgency the undertaker has otherwise arranged with that person.

(3) The undertaker shall supply to the medical officer of health any further particulars with regard to the fumigation that he may require.

4.—(1) Where the purpose of the fumigation is or includes the fumigation of foodstuffs, or where it is otherwise intended to leave exposed foodstuffs in the fumigation area, the undertaker shall, before undertaking the fumigation, apply for a certificate (hereinafter called a foodstuffs fumigation certificate) authorising the fumigation or the retention in the fumigation area of such foodstuffs as are specified therein, and the application shall be made —

- (a) in any case where the fumigation is to be carried out solely for the purpose of compliance with any regulations made, or having effect, under Sections one hundred and forty-eight and one hundred and forty-nine of the Public Health (Ireland) Act, 1878, and Section one hundred and forty-three of the Public Health Act, 1936, as extended to Northern Ireland by the Public Health (Northern Ireland) (Extension of Enactments) Order, 1939, (which Sections empower the making of regulations for the treatment of certain diseases and for preventing the spread of such diseases), to the medical officer of health appropriate to the case ;
- (b) in any case where the fumigation is to be carried out solely for the purpose of compliance with a notice served under Section five of the Rats and Mice (Destruction) Act, 1919, (which empowers certain authorities to serve a notice requiring the taking of steps to destroy rats and mice), to the medical officer of health appropriate to the case ;
- (c) in any other case to a person designated for that purpose by the Ministry of Agriculture, Northern Ireland.

(2) On any such application as aforesaid the person to whom the application was made may, subject as provided in paragraph (3) of this Regulation, grant a foodstuffs fumigation certificate authorising the fumigation or the retention in the fumigation area of such foodstuffs as are specified therein on such conditions stated in the certificate as he may think necessary to prevent danger from the contamination of those foodstuffs by exposure to the fumigant, and the undertaker shall take all steps necessary to ensure that the operator shall comply with any conditions stated in the certificate.

(3) Where such an application as aforesaid is made to a person designated for the purpose by the Ministry of Agriculture, and the purposes for which the fumigation is to be carried out include the purpose mentioned in sub-paragraph (a) of paragraph (1) of this Regulation, or the purpose mentioned in sub-paragraph (b) of the said paragraph, or both such purposes, the person to whom the application is made shall, before granting a foodstuffs fumigation certificate, consult the medical officer of health appropriate to the case or, if there are two such medical officers, both of them.

(4) In this Regulation a reference to the medical officer of health appropriate to the case is —

- (a) in relation to the purpose referred to in sub-paragraph (a) of paragraph (1) of this Regulation, a reference to the medical officer of health of the authority by whom the regulations referred to in the said sub-paragraph are enforced and executed in the place where the fumigation is carried out ;
- (b) in relation to the purpose specified in sub-paragraph (b) of the said paragraph, a reference to the medical officer of health of the authority by whom the notice referred to in the said sub-paragraph was served.

5.—(1) The fumigation shall not be carried out except by an adequate fumigation staff, which shall consist of at least two persons.

(2) One member of the fumigating staff shall be designated in writing by the undertaker to be the operator in charge of the fumigation.

(3) The operator shall during the two years immediately preceding the fumigation have been engaged in fumigating with the fumigant on not less than twenty occasions, of which not less than six shall have been concerned with fumigating buildings, and shall be otherwise competent for the purpose.

(4) One member of the fumigating staff, other than the operator, shall during the six months immediately preceding the fumigation have been engaged in fumigating with the fumigant on not less than six occasions, of which not less than two shall have been concerned with fumigating buildings, and shall be otherwise competent for the purpose.

(5) Each member of the fumigating staff shall be adequately trained in the use of the respirator or other apparatus which, in pursuance

of sub-paragraph (a) of paragraph (1) of Regulation 9 of these Regulations, he is wearing or carrying.

(6) Each member of the fumigating staff shall be adequately trained in first aid and be fully conversant with the contents of the two notices (being notices setting out respectively the symptoms of hydrogen cyanide poisoning with preliminary action to be taken and appropriate first-aid treatment for that poisoning) which, under Regulation 9 of these Regulations and paragraphs 2 and 4 of the Second Schedule thereto, are required to be displayed.

6.—(1) In any case where the fumigant is in liquid form the undertaker shall take all reasonable steps to secure that the fumigant is contained in containers constructed either in accordance with the British Standard Specification Number 401 or in accordance with a specification approved by the Minister of Home Affairs for the purpose of this Regulation, and that the fumigant shall, before liberation thereof commences, be not less than ninety-five per cent. by weight of the total contents of the container.

(2) In any case where the fumigant is in absorbed form the undertaker shall take all reasonable steps to secure that the fumigant is contained in containers impervious to the fumigant, clearly marked with the weight of fumigant contained therein, and that the total water content, excluding water of crystallisation, of the absorbed fumigant and the absorbent in each container, before the liberation of the fumigant commences, shall not exceed five per cent. by weight of the absorbed fumigant present in the container.

(3) In any case —

- (a) the undertaker shall take all reasonable steps to secure that any fumigant to be used in the fumigation shall be suitably stabilised ;
- (b) the fumigant shall not be brought into the fumigation area except in such a container as is referred to in paragraph (1) or paragraph (2) of this Regulation and shall, except so far as is necessary for the purpose of liberation, be contained therein throughout the fumigation ; and
- (c) every container when not in use shall be kept securely closed to avoid risk of leakage.

7.—(1) Before the fumigant is liberated the operator shall ensure that —

- (a) all persons other than authorised persons have left the risk area ;
- (b) all absorbent liquids and all exposed foodstuffs, except foodstuffs in respect of which the undertaker has obtained a foodstuffs fumigation certificate in accordance with Regulation 4 of these Regulations, have been removed from the fumigation area ;

- (c) all boiler fires in the fumigation area have been drawn and extinguished, and all other fires and naked lights in that area have been extinguished ;
- (d) all electric generators in the fumigation area have been shut down and all electrical supply to that area has been discontinued and arrangements have been made to secure that it shall not be resumed, except on the instructions of the operator, until the certificate of clearance has been delivered to the occupier as required by Regulation 11 of these Regulations ;
- (e) every door and other means of access to the risk area has been securely fastened and possession has been taken of all keys thereof and arrangements have been made to keep every such door and means of access under effective supervision until the certificate of clearance has been delivered as aforesaid ;
- (f) notices containing in block letters not less than four inches in height the words " DANGER, POISON GAS : KEEP AWAY " have been placed where they may be readily seen by any person approaching the risk area, which notices shall be illuminated during the hours of darkness ; and
- (g) all practicable steps have been taken to seal all openings, cracks and crevices so as to prevent effectively the escape of the fumigant from the fumigation area.

(2) When the operator has carried out an exhaustive search of the risk area and has satisfied himself that the requirements set out in sub-paragraphs (a), (b), (c), (d), (e), (f) and (g) of paragraph (1) of this Regulation have been complied with he shall complete and sign two copies of a safety statement in Form C of the forms set out in the First Schedule to these Regulations and shall, before the fumigant is liberated, deliver one copy of the statement, or cause it to be delivered, to the occupier.

8.—(1) If as part of the process of applying the fumigant it is necessary to transfer it in liquid form from one container to another, this operation shall be carried out only within the risk area and after all the requirements set out in sub-paragraphs (a), (b), (c), (d), (e), (f) and (g) of paragraph (1) of Regulation 7 of these Regulations have been complied with, and the transference shall not be effected except through suitable piping connecting the two containers.

(2) The fumigant shall not be applied in such a manner as to be absorbed in liquid form by floors, walls, ceilings, household effects or commodities of any kind.

9.—(1) During the whole of the period commencing immediately before the fumigant is liberated and terminating when the certificate of clearance has been delivered to the occupier as required by Regulation 11 of these Regulations —

- (a) each authorised person while in any part of the risk area shall wear or carry ready for immediate use a respirator or other apparatus for affording protection to the wearer against the fumigant and shall carry or have in his possession ready for immediate use an efficient electric torch ;
- (b) the operator shall secure that there shall be immediately to hand and ready for use oxygen and carbon-dioxide with an efficient apparatus for their administration, two life lines and a box or case, which box or case shall conform with the requirements of the Second Schedule to these Regulations as to construction, marking, contents and the display of notices ; and
- (c) each authorised person who in pursuance of this paragraph has with him a respirator shall keep immediately to hand and ready for use a spare respirator canister which has not previously been used in a fumigation.

(2) In order to comply with paragraph (1) of this Regulation a respirator or other apparatus shall be efficient for the purpose of affording protection to the wearer against the fumigant and shall be a respirator or other apparatus which is constantly maintained in good condition.

10.—(1) The operator shall take steps to ensure that during the period commencing immediately before the fumigant is liberated and terminating when the certificate of clearance has been delivered to the occupier as required by Regulation 11 of these Regulations —

- (a) at least one member of the fumigating staff shall remain in attendance in the risk area ;
- (b) a member so remaining has possession of all keys of which possession was taken under sub-paragraph (e) of paragraph (1) of Regulation 7 of these Regulations ;
- (c) a member so remaining shall, so far as in the circumstances is reasonably practicable, at all times be able easily and rapidly to communicate with the operator ;
- (d) the risk area and any enclosed space in the adjoining area are kept under observation and all necessary steps are taken to safeguard any persons in the adjoining area from the fumigant ;
- (e) no person other than an authorised person shall be permitted to enter the risk area :

Provided that if a fire breaks out in the risk area, such other persons as it may be expedient to permit to enter that area for the purpose of extinguishing the fire may, if they are equipped with respirators or other apparatus for affording protection to the wearer against the fumigant, be permitted to enter that area for the said purpose.

Before any such person as is referred to in the proviso to this paragraph is permitted to enter the risk area he shall be warned that a building in that area is being fumigated with hydrogen cyanide.

(2) If a fire breaks out in the risk area during the period referred to in paragraph (1) of this Regulation, any member of the fumigating staff who calls for the assistance of a fire brigade shall, at the time of calling, state that the fire is in, or, as the case may be, in close proximity to, a building which is being fumigated with hydrogen cyanide.

(3) All members of the fumigating staff shall comply with all instructions given by the operator for the purpose of compliance with paragraph (1) of this Regulation.

11.—(1) After the fumigation has been completed the operator shall satisfy himself that the following requirements have been complied with, that is to say :—

- (a) all apparatus, containers and such residues of the materials used for generating the fumigant as may constitute a danger have been removed from the fumigation area and safely disposed of ;
- (b) all liquids, foodstuffs and articles, except articles to which sub-paragraph (e) of this paragraph applies, which, notwithstanding any steps taken to comply with sub-paragraph (b) of paragraph (1) of Regulation 7 and paragraph (2) of Regulation 8 of these Regulations, may constitute a danger through having become contaminated by the fumigant have been removed from the fumigation area and safely disposed of ;
- (c) the fumigation area has been ventilated in such manner and for such period, which period shall, in the case of a dwelling house, be not less than twenty-four hours, as shall be effective to secure dispersal of the fumigant ;
- (d) it has been established by tests including the test set out in the Third Schedule to these Regulations that in no part of the risk area does the concentration of the fumigant exceed one part by volume in one hundred thousand parts of air ; and
- (e) all bedding, blankets, pillows, clothing, cushions or upholstered articles likely to have absorbed the fumigant have been aired in such manner and for such a period as to ensure that they are free from residues which may subsequently produce dangerous concentrations of the fumigant.

(2) Upon being satisfied as aforesaid, and that in all respects the risk area, and any such materials and articles as are described in sub-paragraph (e) of paragraph (1) of this Regulation, are free from danger arising from the use of the fumigant, the operator shall complete and sign three copies of a certificate of clearance in Form D of the forms set out in the First Schedule to these Regulations and deliver them, or cause them to be delivered, to the occupier, who shall at the foot of

each write the date and time when it was delivered to him and append his signature and keep one copy, and the operator shall then deliver one copy, or cause it to be delivered, to the person or authority to whom the notice of the fumigation was delivered in accordance with sub-paragraph (a) or sub-paragraph (b) of paragraph (1) of Regulation 3 of these Regulations.

12.—(1) Every undertaker shall keep in his office a register in which reports in Form E of the forms set out in the First Schedule to these Regulations may be entered in accordance with paragraph (2) of this Regulation.

(2) After the fumigation —

(a) the operator shall enter and sign two copies of a report thereof in Form E of the forms set out in the First Schedule to these Regulations in the register kept by the undertaker in accordance with this Regulation ;

(b) the undertaker shall countersign each copy of the report and shall, within thirty-one days of the delivery of the certificate of clearance to the occupier under Regulation 11 of these Regulations, send one copy to the Minister of Home Affairs.

(3) Every register kept under this Regulation shall be preserved in good condition in the office of the undertaker until one year has elapsed since the date of the last report entered therein.

(4) One copy of the notice of the fumigation, of the safety statement and of the certificate of clearance, and any foodstuffs fumigation certificate, given under these Regulations, and any document containing the agreement of the medical officer of health regarding the extent of the risk area as defined in paragraph (2) of Regulation 1 of these Regulations, shall be preserved in good condition by the undertaker until one year has elapsed from the date of the fumigation.

(5) Any register kept under this Regulation and any document preserved under paragraph (4) thereof shall at all reasonable times be open to inspection by any person authorised in that behalf by the Minister of Home Affairs.

13. Where any building or part of a building has been specially constructed or adapted for the fumigation of any articles and has been constructed, and is operated, in a manner approved by the Minister of Home Affairs, any fumigation carried out in that building or that part of a building shall be exempted from such provisions of these Regulations as the Minister of Home Affairs may from time to time determine or, if the Minister of Home Affairs so determines, from all the provisions of these Regulations.

Dated this 6th day of November, 1952.

Brian Maginess,

Minister of Home Affairs,

FIRST SCHEDULE

FORM A

Regulation 1 (2)

HYDROGEN CYANIDE (FUMIGATION OF BUILDINGS) REGULATIONS
(NORTHERN IRELAND), 1952

CERTIFICATE OF AUTHORITY

(Name)
is hereby authorised and appointed to attend the fumigation of buildings under the
above-named Regulations.

Signature

Description.....

Date.....

FORM B

Regulation 3 (1)

HYDROGEN CYANIDE (FUMIGATION OF BUILDINGS) REGULATIONS
(NORTHERN IRELAND), 1952

- * To the officer in charge of police station at.....
- * To the harbour authority (address)
- * To the medical officer of health (address).....
- * Copy for record

NOTICE OF FUMIGATION

We hereby give notice in accordance with Regulation 3 (1) of the Hydrogen Cyanide
(Fumigation of Buildings) Regulations (Northern Ireland), 1952, that we have been :

instructed by (occupier or authority)
to fumigate (address or description of premises)

against (nature of infestation)

and that we propose to begin the fumigation at (time).....
on (date).....

We have instructed (name of operator).....
being an operator qualified under Regulation 5 (3) to be in charge of the fumigation.

Signature of undertaker.....

Address of place of business.....

Telephone number

Date..... Time.....

* Delete where inapplicable.

FORM C

Regulation 7 (2)

HYDROGEN CYANIDE (FUMIGATION OF BUILDINGS) REGULATIONS
(NORTHERN IRELAND), 1952

* To the occupier

* Copy for record

Fumigation of (address or description of premises)

SAFETY STATEMENT

To be completed and signed in duplicate by the operator before the liberation of the fumigant.

(If the answer is in the affirmative, write " Yes ")

| | |
|--|--|
| 1. Have all persons other than authorised persons left the risk area ? | |
| 2. (a) If a foodstuffs fumigation certificate has been obtained state the nature of the foodstuffs specified therein. (b) Have all other exposed foodstuffs been removed from the fumigation area ? (c) Have all absorbent liquids been removed from the fumigation area ? | |
| 3. Have all boiler fires in the fumigation area been drawn and extinguished, and all other fires and naked lights in that area extinguished ? | |
| 4. Have all electric generators in the fumigation area been shut down and arrangements made for all electrical supply to that area to be discontinued during the fumigation as required by Regulation 7 (1) (d) ? | |
| 5. Are all doors and other means of access to the risk area securely fastened and has possession been taken of all keys, and have arrangements been made for keeping the doors and other means of access under effective supervision as required by Regulation 7 (1) (e) ? | |
| 6. Have warning notices as required by Regulation 7 (1) (f) been placed in position ? | |
| 7. Have all practicable steps been taken to seal all openings, cracks and crevices so as to prevent effectively the escape of the fumigant from the fumigation area ? | |
| 8. Has exhaustive search been carried out to ensure that the above particulars are correct ? | |

Signature of operator.....

Date Time

* Delete where inapplicable.

NOTE : " Exposed foodstuffs " means foodstuffs, whether liquid or not, which are so stored as to be exposed to the fumigant.

" Absorbent liquids " means liquids, not being foodstuffs, of such a kind and so stored as to be liable to absorb the fumigant.

HYDROGEN CYANIDE (FUMIGATION OF BUILDINGS) REGULATIONS
(NORTHERN IRELAND), 1952

- * To the occupier
- * To the officer in charge of police station at.....
- * To the harbour authority (address)
- * Copy for record

CERTIFICATE OF CLEARANCE

I (name) being the operator in charge of the fumigation of (address or description of premises)

hereby declare that I am satisfied that the requirements specified in Regulation 11 (1) have been complied with and that the risk area and any such materials and articles as are described in Regulation 11 (1) (e) are free from danger arising from the use of the fumigant.

Signature of operator.....

Date Time

* Delete where inapplicable.

The above certificate of clearance was handed to me at (time) on (date)

Signature of occupier

HYDROGEN CYANIDE (FUMIGATION)

FORM E

Regulation 12 (1) and (2)

 HYDROGEN CYANIDE (FUMIGATION OF BUILDINGS) REGULATIONS
 (NORTHERN IRELAND), 1952

REPORT OF FUMIGATION †

One copy to be sent within 31 days of the delivery of the relevant certificate of clearance.

* To the SECRETARY,
 Ministry of Home Affairs,
 Stormont,
 Belfast.

* Copy for record

| | | | |
|---|---------------------------|-----------------------------------|---|
| 1. Address or description of premises fumigated | | | |
| 2. Reasons for fumigation | | | |
| 3. (a) Date and time of the liberation of the fumigant (b) Period (or periods) of exposure to the fumigant (c) Period of ventilation of the premises (d) Date and time of delivery of certificate of clearance to the occupier | | | |
| | | | |
| | | | |
| | | | |
| 4. Names of members of fumigating staff operator other members | | | |
| 5. Particulars of spaces fumigated and dosage ‡ | Nature of space fumigated | Cubic capacity of space (cu. ft.) | Rate of dosage at oz. per 1,000 cu. ft. |
| | | | |
| 6. Type of fumigant, whether (a) liquid (b) absorbed. (Giving the trade name in either case). | | | |
| 7. Method of application—e.g., spraying | | | |
| 8. Weather conditions during fumigation—e.g., temperature, moisture, wind, etc. | | | |
| 9. If any untoward incident occurred, give details. ‡ | | | |

I declare to the best of my knowledge and belief that the above is a true report.

Signature of operator.....

Date.....

Signature of undertaker

Date.....

Address of place of business.....

† It should be understood that this Report is additional to the notice which must be sent to the Minister of Home Affairs under Section 2 of the Hydrogen Cyanide (Fumigation) Act (Northern Ireland), 1938. This Section provides as follows:—

- (1) Whenever any accident which occasions loss of human life or personal injury occurs as the result of the fumigation of any premises, or article, the person by whom, or by whose agent, the fumigation was carried out shall forthwith send or cause to be sent to the Minister of Home Affairs notice of the accident and of the loss of human life or personal injury.
- (2) Every such person as aforesaid who fails to comply with the provisions of this section shall be liable on summary conviction to a fine not exceeding five pounds.

* Delete where inapplicable.

‡ Where all information cannot be contained within the space provided, it should be continued on a separate sheet.

SECOND SCHEDULE

Regulation 9 (1) (b)

FIRST AID AND MEDICAL TREATMENT

1. The box or case shall be provided with a lid and shall contain two compartments or containers, each with a lid capable of being raised independently without removal from the box or case:

2. The lid of the box or case shall be plainly marked on the outside with a red cross on a white ground and there shall be displayed on the inside of the lid in such a manner as to be clearly legible when the lid is raised a notice in the following form, that is to say :—

HYDROGEN CYANIDE POISONING

Hydrogen Cyanide is extremely poisonous, and poisoning may result from breathing the gas or from absorption through the skin.

Warning signs. (1) Irritation of throat
 (2) Dizziness, nausea, general weakness and headache
 (3) Palpitation
 (4) Feeling of suffocation
 (5) Pallor, deep breathing, sudden unconsciousness, followed by stoppage of breathing.

A person showing symptoms of poisoning must be IMMEDIATELY REMOVED to a pure atmosphere; he must be laid down, with his head to windward, and first aid must be given without delay.

SPEED IS ESSENTIAL. A DOCTOR MUST BE SUMMONED AT ONCE.

3. The words "FIRST AID" and the words "MEDICAL TREATMENT (for doctor's use only)" shall be plainly visible on the outside of the lid of, respectively, the first and the second inner compartment or container.

4. The compartment or container marked "FIRST AID" shall contain at least 12 capsules of amyl nitrite each containing 3 minims., and there shall be displayed on the inside of the lid of that compartment or container in such a manner as to be clearly legible when the lid is raised a notice in the following form, that is to say :—

FIRST AID

SPEED IS ESSENTIAL. A DOCTOR MUST BE SUMMONED AT ONCE.

If the patient is conscious

- (1) Break a capsule of amyl nitrite (if possible in a handkerchief or small piece of thin cloth) and allow the patient to inhale the vapour,
- (2) Remove or cut away any splashed clothing.

If the patient is unconscious

- (1) Break a capsule of amyl nitrite (if possible in a handkerchief or small piece of thin cloth) and allow the patient to inhale the vapour,
- (2) Start artificial respiration (Schafer's method),
- (3) Remove or cut away any splashed clothing.

KEEP THE PATIENT WARM. NEVER WALK HIM ABOUT.

5. The compartment or container marked "MEDICAL TREATMENT (for doctor's use only)" shall contain not less than :—

- 6 ampoules of Nikethamide B.P.,
- 6 ampoules of sodium nitrite each containing 0.3 gramme and 6 ampoules 10 millilitres sterile distilled water,
- 6 ampoules of sodium thiosulphate each containing 25 grammes in 50 millilitres sterile distilled water,
- 2 record syringes in good condition of 10 millilitres capacity,

2 record syringes in good condition of 50 millilitres capacity or, if record syringes of that capacity are not available, of at least 20 but not more than 50 millilitres capacity,

2 intravenous needles in good condition,

and there shall be displayed on the inside of the lid of that compartment or container in such a manner as to be clearly legible when the lid is raised a notice in the following form, that is to say :—

MEDICAL TREATMENT

(To be carried out only by a doctor)

(1) Continue inhalations of amyl nitrite for 15—30 seconds at a time, at short intervals, over a period of 3—5 minutes.

(2) Inject intravenously sodium nitrite 0.3 gramme in 10 millilitres sterile water at the rate of 2.5 to 5 millilitres per minute. THIS RATE MUST NOT BE EXCEEDED.

(3) Immediately following this, and through the same needle, inject intravenously sodium thiosulphate 25 grammes in 50 millilitres sterile water at the SAME RATE. TAKE CARE TO AVOID EXTRAVASATION.

(4) An intramuscular or intravenous injection of 2 to 5 millilitres Nikethamide may be given.

(5) Keep the patient under observation for 24—48 hours.

(6) If there is any return of symptoms the above treatment should be repeated immediately.

THIRD SCHEDULE

Regulation 11 (1) (d)

TEST

1. Stock solutions required for use in the test

(a) The stock solutions shall be prepared as follows, that is to say :—

- (i) solution A shall be prepared by dissolving 0.3 gramme of cupric acetate in one hundred millilitres of distilled water ;
- (ii) solution B shall be prepared by mixing together in a small glass or porcelain mortar 0.6 millilitre of glacial acetic acid and 0.45 gramme of benzidine ; the resultant plastic mass shall be ground with successive small quantities of distilled water, the aqueous suspension resulting from each grinding being poured off and filtered, and the process continued until the volume of the clear filtrate just exceeds fifty millilitres ; fifty millilitres of the clear filtrate shall be diluted to one hundred millilitres with distilled water.

(b) In regard to the stock solutions the following requirements shall be observed, that is to say :—

- (i) the solutions shall be prepared from chemicals of a high degree of purity as supplied for analytical work ;
- (ii) the solutions shall be kept in glass-stoppered glass bottles and stored in the dark ;
- (iii) each bottle shall be labelled with a label showing the date on which the solution was prepared ;
- (iv) no solution shall be used more than thirty-one days after preparation.

2. Materials required for use in the test

(a) Test solution. The test solution shall be prepared by mixing together equal portions of stock solution A and stock solution B, and the following requirements shall be observed, that is to say :—

- (i) the test solution shall be kept in a glass-stoppered glass bottle, the stopper being well fitting ;
- (ii) the bottle shall be kept closed except when a test strip is being dipped therein during a test ;
- (iii) no test solution shall be used more than twenty-four hours after preparation.

- (b) Test strips.
- (i) a test strip shall be made of Whatman No. 1 filter paper or exactly similar white absorbent paper in strips approximately 6 in. by $\frac{3}{4}$ in. in size ;
 - (ii) there shall be printed on one half of one side of each test strip a blue colour of approximately the same colour and density as that produced on the plain part of a test strip in a test, performed with the materials and in the manner described by this Schedule, in air in which there is a concentration of one part by volume of hydrogen cyanide in one hundred thousand parts of air.*
- (c) A means for timing accurately a period of ten seconds.
3. The test
- (a) In making the test the following requirements shall be complied with, that is to say :—
 - (i) the plain part of a test strip complying with the requirements of sub-paragraph (b) of paragraph 2 of this Schedule shall be dipped into a test solution complying with the requirements of sub-paragraph (a) of that paragraph and withdrawn from the solution in the air to be tested ;
 - (ii) the excess solution shall be shaken off the test strip ;
 - (iii) the test strip shall be waved gently in the air which is being tested ;
 - (iv) exactly ten seconds after the test strip has been withdrawn from the test solution the density of the colour produced on the plain part of the test strip shall be compared with that on the printed part.
 - (b) If the colour produced on the plain part of the test strip in the test described in sub-paragraph (i) of this paragraph is more dense than that on the printed part of that strip, the concentration of hydrogen cyanide in the air tested exceeds one part in one hundred thousand.

*NOTE :— Test strips complying with the requirements of this Schedule can be obtained from chemical suppliers.

Fumigation of Ships

REGULATIONS DATED THE 6TH DAY OF NOVEMBER, 1952, MADE BY THE
MINISTER OF HOME AFFAIRS UNDER SECTION ONE OF THE HYDROGEN
CYANIDE (FUMIGATION) ACT (NORTHERN IRELAND), 1938.

1952. No. 212

I, THE RIGHT HONOURABLE BRIAN MAGINESS, Q.C., Minister of Home Affairs for Northern Ireland, in pursuance of Section one of the Hydrogen Cyanide (Fumigation) Act (Northern Ireland), 1938, do hereby make the following Regulations —

1.—(1) These Regulations may be cited as the Hydrogen Cyanide (Fumigation of Ships) Regulations (Northern Ireland), 1952, and shall come into operation on the first day of December, 1952.

(2) In these Regulations :—

“ absorbent liquids ” means liquids, not being foodstuffs, of such a kind and so stored as to be liable to absorb the fumigant ;

“ authorised person ” means any person directly engaged in the supervision or carrying out of the fumigation or who is in