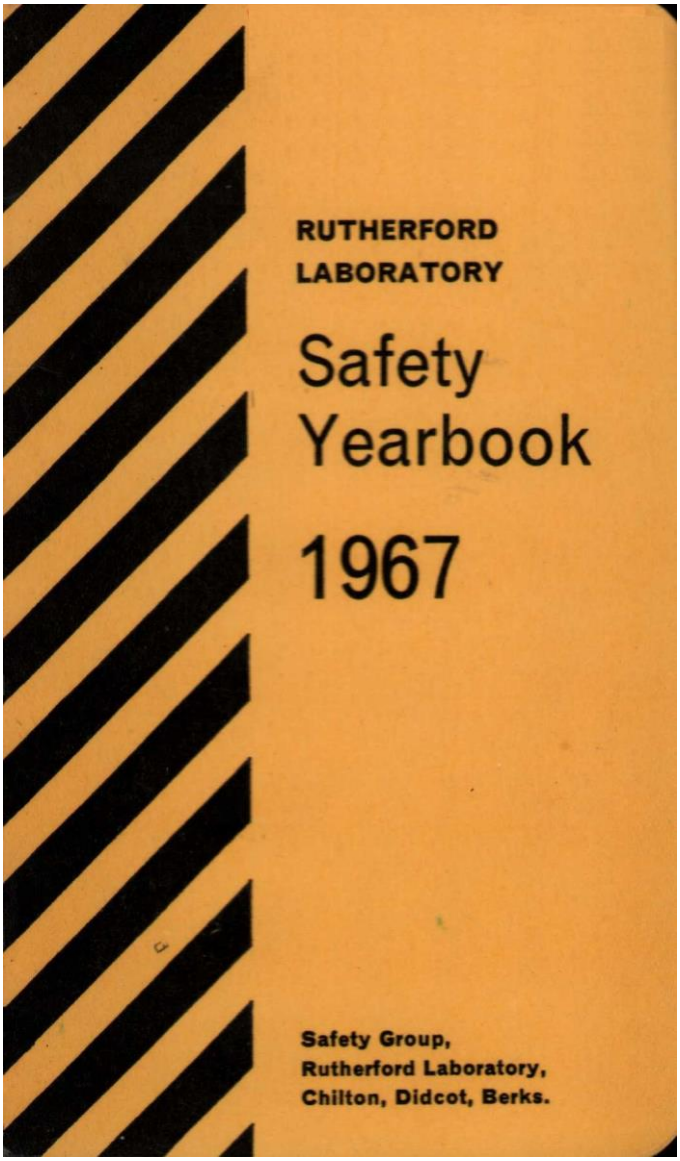
RUTHERFORD
LABORATORY
Safety
Yearbook
1967
Safety Group,
Rutherford Laboratory,
Chilton, Didcot, Berks.

A copy of the following with white lettering on a green background is posted on all doors leading to corridors:

**EMERGENCY INSTRUCTIONS**

**FIRE**

**IF YOU DISCOVER A FIRE**

1. Operate Break-Glass Alarm

OR

2. Telephone 2222, ask for Fire Brigade giving location of Fire. Ring Local Hand Bell.

**IF ALARM BELL RINGS - LEAVE BUILDING**

**MEDICAL SERVICE**

Telephone 2222, ask for Medical Service.
State location and nature of Emergency.

**SITE INCIDENT**

**IF KLAXON SOUNDS INTERMITTENT NOTE**

Enter or remain in a building. Close all doors and windows.

**See inside back cover for Artificial Respiration instructions**

**Science Research Council**

# RUTHERFORD LABORATORY
# SAFETY YEARBOOK

**1967**

CONTENTS



*For advice or if in doubt on any matter of safety contact your Safety Officer telephone 329 or 6216*

## INTRODUCTION

Every individual in the Rutherford Laboratory "is **directly** responsible for the safety of all operations which come within his charge. Everyone therefore has his part in the responsibility for safety in all its many aspects". (Quoted from the Director's policy on safety, see next page.)

The object of this booklet is to help each person at the Laboratory to fulfil his (or her) responsibility for safety by providing in a convenient form a summary of Laboratory safety instructions, Codes and other relevant information.

This new edition of the yearbook is substantially different from the previous one. Changes include the addition of safety regulations for certain specific areas (e.g. Nimrod), and a simplified presentation of instructions on how to deal with emergencies, such as accidents, fire, or radiation incidents.

The first part of the booklet at least should be read by everyone in the Laboratory (including university visitors), and the remainder by all those concerned with technical matters.

H. H. ATKINSON,
(Chairman, Rutherford Laboratory
Safety Committee)

*January, 1967*

## SAFETY POLICY

Rutherford Laboratory Notice No. 179 including Amendment No. 1 reproduced here outlines the Director's policy for safety at the Laboratory.

### Safety requirements at the Rutherford Laboratory

1. The Science Research Council is responsible under common law, and in certain areas by statute, for providing and maintaining safe working conditions at the Rutherford Laboratory. Responsibility is placed by the Council upon the Director and through him upon Heads of Divisions and those in charge of Groups and Sections.
2. **Every Officer is directly responsible for the safety of all operations which come within his charge and it follows that responsibility is also borne throughout the "normal chain of command". Everyone therefore has his part in the responsibility for safety in all its many aspects.**
3. All users of the Laboratory, whether from the Universities, the A.E.A., or elsewhere are included. Ultimate responsibility for the safety of their work is borne by the Council through the Director, the Division Head and Group Leader directly concerned, and in the case of a visiting team, the Team Leader.
4. The minimum standards required are covered by the following as appropriate :
   (a) The Factories Acts and Statutory Rules and Orders.
   (b) The Offices, Shops and Railway Premises Act.
   (c) Code of Practice for the Protection of Persons Exposed to Ionising Radiations in Research and Teaching.
   (d) Rutherford Laboratory Codes of Practice and Safety Codes.



   (e) British Standards.
   (f) Regulations for the Electrical Equipment of Buildings of the Institution of Electrical Engineers.
   (g) Recommendations of the Fire Protection Association.

   Cases outside the scope of the above must be given the individual attention necessary to ensure comparable standards.
5. The Radiation Protection Group is responsible for all matters concerning ionising radiations and should be consulted for advice.
6. The Safety Committee, The Fire Committee, and the Safety Officer are ready to advise on all safety matters and should be consulted when problems arise.
7. Contractors have obligations under statutory and common law when engaged to carry out work at the Rutherford Laboratory. They are also required to comply with safety rules in force in certain areas and to follow standards comparable to those which apply generally at the Laboratory.

   This Rutherford Laboratory Notice replaces R.L.N. 52.

T. G. PICKAVANCE,
Director

*December, 1966*

## ACCIDENTS OR ILLNESS AT WORK

**Serious Injury or Illness** in which person is so incapacitated he cannot care for himself :

1. Cope with the immediate emergency.
For example, in a case of electric shock break or disconnect the circuit and apply artificial respiration. [*See inside back cover*]

2. Telephone 2222, ask for Medical Service. State location and nature of emergency.

3. Meet Ambulance and guide to scene.

4. Obtain "First Aid". First Aiders are available during working hours in most buildings. Lists giving names and locations are prominently displayed.

5. During Working Hours inform :
   (a) the person's Supervisor.
   (b) the nearest Administration Office.
   (c) in the case of injury, the Safety Officer, telephone 329/6216.

6. During silent hours inform the Gatekeeper, telephone 545.

7. Accidents resulting in serious injury or death are likely to be the subject of special press procedure—all external enquiries should be referred to the Head of Scientific Administration, telephone 438, or in his absence, the Chief Engineer, telephone 507.

**Minor Injury or Illness**

1. Obtain First Aid or Medical Attention as necessary. During normal hours contact nearest Administration Office, and during silent hours, the Duty Sister, telephone 72.2797 to arrange access to Medical Division A.E.R.E.



2. Inform person's Supervisor.

**N.B.** Should the person be detained by Medical Division or sent to hospital, Medical Division will take appropriate measures to inform next-of-kin and also the person's Supervisor.

**Accident Report**

It is the responsibility of the Supervisor of an injured person to complete the Accident Report (form NI57) without delay. Particular attention should be given to the completion of Section F concerning cause and action taken to prevent recurrence.

**Accident Prevention**

If you see any situation which you think might lead to an accident you should immediately report it to your Supervisor and the Safety Officer.

## FIRE

1. **If you discover a fire**

   (a) **Nimrod Area**

   Experimental Halls: Operate Break-Glass Fire Alarm (This is essential, not only to sound alarm and call Fire Brigade, but also to inform the Main Control Room).

   Magnet Hall and Injector: Telephone 2222 (Break-Glass stations are not installed, an automatic detection system sounds the alarm and informs the Main Control Room).
   Confirm details by telephoning Main Control Room, telephone 217.

   **Elsewhere**

   In each case, sound the alarm and notify the Fire Brigade by either :

   (i) Break-Glass Fire Alarm or

   (ii) Local Hand Bell and telephone 2222 giving the location of fire.

   (b) Inform the Building Warden, report if anyone is trapped in the vicinity of the fire and give the Warden any assistance he may need.

   (c) Tackle the fire yourself with the correct extinguisher until help arrives.

2. **If you hear the Fire Alarm** (slow beat gong)

   (a) Leave the building by the **nearest** escape route providing you have no other responsibilities in the event of fire.

   (b) Close all doors and, if possible, windows behind you when you leave.

   (c) Never use a lift as a means of escape.

   (d) If your escape is cut off, enter the nearest room, shut the door and stand by the window. Await the arrival of the Fire Brigade.



   (e) If you suspect there is a fire on the other side of a door, open very slowly, shielding yourself as much as possible.

   (f) If you are caught in a smoke-filled corridor it may still be possible to escape by crawling on hands and knees.

   (g) Having left the building, inform the Building Warden of anyone who you think may still be in the building.

3. Fire alarms are installed in most buildings and fire alarm pillars are situated around the Laboratory. In some temporary buildings there may be a hand bell. You should make a point of knowing the location of your nearest alarm.

4. Local fire instruction notices should be read carefully and the nearest escape route from your building memorised.

5. You can help in Fire Prevention by keeping your office or laboratory tidy and free from accumulations of combustible materials. Detailed advice on the use and storage of flammable and oxidising materials can be obtained from the Safety Officer.

6. Serious fires are likely to be the subject of special press procedure—all external enquiries should be referred to the Head of Scientific Administration, telephone 438 or in his absence, the Chairman of the Fire Committee, telephone 6610.

This information is provided for general guidance in the event of fire. Instructions for Building Wardens and those with responsibilities for plant and equipment are issued separately.

## RADIATION PROTECTION DUTY OFFICER

**During Normal Working Hours** persons requiring Health Physics advice or assistance should, in the first instance, follow the local arrangements which exist for the Nimrod and P.L.A. Divisions; routine enquiries from other Divisions should be direct to Extn. 253. If contact cannot be made by the above method, **urgent** enquiries should be directed to Extn. 6666 which is continuously manned.

**Outside Normal Working Hours** persons requiring **urgent** Health Physics advice or assistance should contact the first available Radiation Protection Officer from preferred calling lists displayed in the Nimrod Main Control Room, P.L.A. Control Room and Building R.1. South Entrance. Alternatively, call the Gatekeeper at the North East Gate, Extn. 545 who will make the contact for you.



## SITE INCIDENT ARRANGEMENTS

The term "Site Incident" refers exclusively to an accidental occurrence at A.E.R.E. Harwell, the effects of which could conceivably extend to the Rutherford Laboratory. In such an event it has been agreed that the Rutherford Laboratory will come under the administrative direction of A.E.R.E. and will be given the same service during an incident as any Division of A.E.R.E.

**On hearing an interrupted note on the "klaxons" :**

**If outside:** enter nearest building.

**In inside:** remain in building and shut all doors and windows.

Remain in the building until the "all clear" sounds (a continuous note on the "klaxons") or until instructed to leave by a Building Warden or other authorised person.

Co-operate with and carry out all requests of Building Wardens and other authorised persons, e.g. A.E.R.E. Site Incident Officers, Firemen, or Police.

**Practice Alarms**

Practice alarms and exercises are arranged at intervals decided by A.E.R.E. Instructions are issued as appropriate.

## CODES OF PRACTICE

Codes of Practice are instructions issued with the authority of the Director and apply to the whole of the Laboratory.

The list below indicates current Codes of Practice and their current issue.

RLCP1 "Control of Lifting Equipment". Issue 2 March 1966.
Specifies procedure for registration marking testing periodic inspection and control of all lifting equipment.

RLCP2 "Portable Electrical Equipment". Issue 1 March, 1962.
Specifies registration and testing of portable electrical equipment. (Out of print, in course of revision).

RLCP3 "Prevention of Electrical Accidents". Issue 3 January, 1967. Electrical safety regulations (Pocket version available).

RLCP4 "Radiation Protection Regulations". Issue 1 in course of printing. Specifies procedures and requirements.

RLCP6 "Marking and Registration of Liquid Gas Dewars". Issue 2 August, 1965.
Specifies identification and suitability.

RLCP7 "Safety in the use of Scaffolding and Staging". Issue 2 August, 1965.
Instructions for erection, registration and use.

RLCP9 "Precautions to avoid ignition of flammable gases by static electricity". Issue 1 March, 1964.
Regulations for flammable gas areas.



RLCP10 "Pressurised Equipment". Issue 1 May, 1965.
Details procedure for design, construction, testing and registration of Pressurised Equipment.

RLCP11 "Gas Systems". Issue 1 November, 1966.
Control of maintenance, modification and repairs to gas systems operating in the pressure range 150 p.s.i. to 3,000 p.s.i.

RLCP12 "The Use and Custody of Poisons". Issue 1 January, 1965.
Specifies ordering, issue and custody of poisons.

## DUTIES OF BUILDING WARDENS

**Fire**

1. Ensure that the Fire Brigade has been summoned and local alarm sounded, and arrange for Fire Brigade to be directed to the fire. Where "break-glass" or "automatic detection" has been actuated confirm fire call by telephoning 2222.
2. Direct personnel to nearest safe exits.
3. Take action in accordance with instructions for specific plant, e.g. power ventilators.
4. Ensure all firebreak doors are closed.
5. Ascertain as far as possible that appropriate section of building has been evacuated and report to Officer-in-Charge of Fire Brigade on arrival, informing him of anyone who you think may still be in the building.
6. If radioactive substances are involved advise the Officer-in-Charge of the Fire Brigade and call out the Radiation Protection Duty Officer, telephone 6666.
7. Give details to the Chairman of the Fire Committee (Mr. J. C. Louth, Building R.2. telephone 6610).

**Site Incident**

Summon assistance of persons nearby to ensure that :

1. All windows and skylights are closed and that exterior doors are closed but not locked.
2. Exterior doors are manned so that :
   (a) Occupants do not leave the building.
   (b) The identity is noted of all persons who arrive in the building five minutes or longer after the alert has sounded. (Retain this information until called for).



3. Action is taken in accordance with local instructions concerning power ventilators etc.
4. A pre-arranged telephone is manned to receive further instructions.

**NOTE**

Building Wardens are responsible for appointing a deputy during their absence.

## SAFETY REGULATIONS FOR SPECIFIC AREAS

### Nimrod

OSP1 Injector Electrical Safety.
OSP2 Injector Vacuum System.
OSP3 Radiation Safety.
OSP4 Beams into Magnet Room.
OSP5 Injector and Octants 1 and 8.
OSP6 Beams in the Inflector.
OSP7 Limitation of Access.
OSP8 Work on or near Nimrod Vacuum System.
OSP9 Precautions in Magnet and Injector Rooms.
OSP10 Radiation Protection.
NSI11 Work Inside Nimrod Vacuum System.
NSI12 Induced Activity and handling of equipment.
NSI13 Fire Instructions in Nimrod Area.
NSI14 Safety Arrangements in Nimrod Area.

Copies of the above are obtainable from Nimrod Records Office, Building R.2.

### Nuclear Chemistry Wing

Safety Regulations for Nuclear Chemistry Wing—(Pocketbook).

### Proton Linear Accelerator

P.L.A. Handbook.
P.L.A.-N.P.1. Liquid Hydrogen Safety.
P.L.A.-S.C.1. Electrical Safety.

Copies of the above are obtainable from the P.L.A. Divisional Administration Office.

## RADIATION PROTECTION

The following is a summary of Rutherford Laboratory Notice No. 167

The Rutherford Laboratory is subject to the "Code of Practice for the Protection of Persons exposed to Ionizing Radiations in Research and Teaching", prepared by the Ministry of Labour and published by H.M.S.O., reference copies of which may be found in the Library. This Code is implemented at the Rutherford Laboratory as follows :

1 **Administration**
The Director of the Rutherford Laboratory is the Controlling Authority as defined in the Code and has appointed the Radiation Protection Group to carry out the duties specified in the Code.
Medical Supervision is provided by the Chief Medical Officer at A.E.R.E.
The Radiation Protection Group organisation is detailed in Radiation Protection Notice No. 10.

2 **Controlled Areas**
Radiation Controlled Areas are defined in Radiation Protection Notice No. 11. All persons required to work in these areas whether employed by the Rutherford Laboratory, a University, or a Contractor, have either to be classed as Radiation Workers or to be engaged on an approved scheme of work. Details of these arrangements are given in Radiation Protection Notice No. 12.

3 **Personal Monitoring**
All film badges are issued by Radiation Protection Group and instructions on their use are given in Radiation Protection Notice No. 13. Records are kept by Radiation Protection Group and are available for inspection or transmission to those concerned.



4 **Monitoring Instruments**
Radiation Protection Group hold instruments used for assessing doses to persons working at the Rutherford Laboratory and are responsible for calibrating and maintaining them and for keeping records of their performance.

5 **Installations emitting Radiation**
Radiation Protection Group should be consulted on the specification, shielding and interlocking of apparatus emitting radiation.

6 **Radioactive Substances**
Rules concerning the use of radioactive substances at the Rutherford Laboratory are detailed in Radiation Protection Notice No. 14.

7 **Responsibility of Individuals**
The Code of Practice contains the following paragraph (2.4.1):

**"It must be impressed on every individual working with ionizing radiations or radioactive substances that he has a duty to protect both himself and others from any hazards arising from his work and that he must not expose himself or others to ionizing radiation to a greater extent than is reasonably necessary for the purposes of his work."**

All Radiation Protection Notices are circulated by Radiation Protection Group with the same distribution as Rutherford Laboratory Notices.

## SAFETY CODES

Some Safety Codes include mandatory paragraphs concerning procedure but in general they are advisory in nature. If difficulty is experienced in complying with any recommendation the advice of the Safety Officer should be sought.

The following list indicates current Safety Codes and their current issue.

RLSC1 "Safety in the use of gaseous hydrogen". Issue 1 August, 1961.
(Out of print—in course of revision)

RLSC2 "Apparatus involving explosive gases—a guide to design and operating conditions". Issue 1 February, 1963.
(In course of revision—further copies of Issue 1 available on request)

RLSC3 "Fire Committee Recommendations for Buildings". Issue 2 August, 1965.
Recommends structural measures to obtain high standard of fire prevention and means of escape.

RLSC4 "Secondary Cells". Issue 2 August, 1965.
Indicates proper storage, charging and operating procedures.

RLSC5 "Safety in the use of High Voltage Experimental Apparatus". Issue 2 August, 1965.
See also RLCP3.

RLSC7 "The repair of Drums or Tanks—Explosion and Fire risks". Issue 2 August, 1965.
Recommendations for safe working.

RLSC8 "Instruction in the use of Self-Contained Compressed Air Breathing Apparatus". Issue 2 August, 1965.



RLSC9 "Ladders, Steps and Trestles". Issue 2 October, 1965.
Indicates preferred specification, scheme for registration and inspection, and safety hints.

RLSC10 "Safety in the use of Cryogenic Liquids". Issue 1 December, 1965.
General recommendations concerning liquid oxygen, air, hydrogen (including deuterium) helium, nitrogen and argon.

## SAFETY NEWS

The purpose of "Safety News" sheets is education by publicity. They deal with general and topical safety matters and are distributed to all laboratories, workshops and offices and are displayed on notice boards. Further copies are available from Safety Group on request.

The following have been published.

| | | |
|---|---|---|
| No. 1 | Compressed Air | September, 1964 |
| No. 2 | Pressure Gauges | October, 1964 |
| No. 3 | Explosive Boiling of Liquified Gases | November, 1964 |
| No. 4 | Carbon Tetrachloride | November, 1964 |
| No. 5 | Liquid Petroleum Gas Blow Lamps | December, 1964 |
| No. 6 | Signal Lights and Electrical Controls | February, 1965 |
| No. 7 | Pipework and Pipefittings subjected to pressure | June, 1965 |
| No. 8 | P.T.F.E. | October, 1965 |
| No. 9 | Solvents | January, 1966 |
| No. 10 | Glove Boxes | March, 1966 |
| No. 11 | Mercury | April, 1966 |
| No. 12 | Aerosols | April, 1966 |
| No. 13 | Colour Coding of Covers of Flexible Cables | April, 1966 |
| No. 14 | Electric Shock from Ionization Gauge Control Unit | May, 1966 |
| No. 15 | Electrical Equipment in Flammable Gas Areas | May, 1966 |



| | | |
|---|---|---|
| No. 16 | Compressed Air Accident at Culham Laboratory in January 1966 | August, 1966 |
| No. 17 | Chemical Hazards—Danger from preparing Bromine/Alcohol Mixture | September, 1966 |
| No. 18 | Hazards from Silver Solder containing Cadmium | October, 1966 |

## RUTHERFORD LABORATORY NOTICES CONCERNING SAFETY

The R.L.N.'s listed below dealing with matters not detailed in the Safety Yearbook have been widely circulated and copies are available in Administration Offices :

RLN59 Flammable Gases.
Summarises hazards and asks staff to review safe use.

RLN60 Standard Alarms.
Details Site Incident, Fire, and Immediate Evacuation alarms used both at the Rutherford Laboratory and A.E.R.E.

RLN88 Use of Liquified Petroleum Gas Cylinders.
Details procedure for use and safety precautions.

RLN92 Safety Colours and Signs.
Standardised signs to be used at the Rutherford Laboratory.

RLN97 Plant and Apparatus left working unattended.
Indicates procedure and safety requirements.

RLN102 Nuclear and Radio-Chemistry Laboratory.
Details Administration and Regulations for entry.

RLN117 Gas Cylinders and Pressure Gauges.
Information on introduction of higher pressure cylinders and need to change pressure gauges and regulators.

RLN124 Investigations into fires.
Deals with removal of rubbish, storage of solvents and warns against initiation of repairs and restoration before investigation into cause completed.



RLN141 Testing of Electricians Gloves.
Procedure to ensure safety.

RLN149 Rutherford Laboratory Fire Committee.
Terms of Reference, Membership and Meetings.

RLN168 Health and Safety Organisation.
Review by Chief Engineer.

RLN188 Test Soundings of Site Incident Klaxons.
Timings of reliability and recognition tests.

RLN204 Medical Examination of Radiation Workers.
Details arrangements.

RLN205 Safety in the use of Flammable Gases.
Appointments within Safety Group to give advice and surveillance.

## SAFETY GROUP SERVICES

The Safety Group has a number of executive responsibilities and these are in connection with the registration, testing and inspection of lifting equipment, pressure vessels, safety equipment and certain high voltage electrical apparatus.

A wide selection of safety equipment is available as follows :

Self-contained and Air-line Breathing Apparatus.
Dust masks.
Respirators.
Hearing Protectors.
Goggles, Safety Spectacles and Faceshields.
Safety Belts, Harness and Lines.
Helmets and Bump Caps.
Conducting Shoes and Footstraps for flammable gas areas.
Earthing Sticks.
High Voltage Warning Signs.

To meet requirements during silent hours cabinets of safety equipment are provided in the Safety Group entrance corridor Building R.13. Borrowers are requested to enter details of equipment borrowed in the book provided.

Safety Footwear is available for private purchase by members of the staff and visitors. Footwear is displayed in Building R.13 and is on sale daily between the hours of 10.30 and 11.30 a.m.

Training in Artificial Respiration and in Manual Lifting and Handling is available for staff and visitors. Training in the use of Compressed Air Breathing Apparatus is available for specially nominated personnel.

A comprehensive advisory service is available covering all safety matters. Safety Group Staff located in



Building R.13 will be pleased to discuss any safety problem, names and telephone numbers are as follows :

*K. C. Myers*
Safety Officer — Extn. 329
*A. J. Holt*
Deputy Safety Officer — Extn. 6216

**Safety Inspectors**

*B. E. Fish*
Flammable Gases, Bubble Chambers, Targets and Counters — Extn. 6323
*E. E. T. Jones*
Mechanical Safety, Lifting Equipment, Pressure Vessels and Safety Equipment — Extn. 6249
*T. W. O'Donnell*
Lifting Tackle Inspections, Training in Manual Lifting and Handling — Extn. 6249
*C. W. Roberts*
Electrical Safety, High Voltage Inspections — Extn. 6323

**General Safety Services**

*E. Eaton*
Safety Equipment Issue and Maintenance, Breathing Apparatus and Artificial Respiration Training, Safety Tours, Safety Footwear — Extn. 314
*P. E. Shefford*
Safety Records — Extn. 314

## ARTIFICIAL RESPIRATION

### Mouth-to-Mouth Method

Clear his mouth and throat.
Tilt his head back as far as possible and raise his jaw.
Pinch his nostrils.
Take a deep breath.
Cover his mouth with yours and blow, watching his chest rise (Blow forcefully into adults and gently into children).
Move your face away for him to breathe out watching his chest fall.
Repeat your first five to ten breaths at a rapid rate.
Thereafter take one breath every three to five seconds.
Keep his head back as far as possible all the time.

1. ON BACK: TILT HEAD BACK AS FAR AS POSSIBLE: RAISE THE JAW.

2. PINCH VICTIM'S NOSE: KEEP HEAD BACK: BLOW UNTIL CHEST RISES.

*Pocket versions of the above and similar posters are available upon request from Safety Group, Building R.13, telephone 314/6323.*

# CALENDAR 1967

| | JAN. | | | | | | FEB. | | | | | | MAR. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1 | 8 | 15 | 22 | 29 | ... | 5 | 12 | 19 | 26 | | | 5 | 12 | 19 | 26 | | |
| M | 2 | 9 | 16 | 23 | 30 | ... | 6 | 13 | 20 | 27 | | | 6 | 13 | 20 | 27 | | |
| Tu | 3 | 10 | 17 | 24 | 31 | ... | 7 | 14 | 21 | 28 | | | 7 | 14 | 21 | 28 | | |
| W | 4 | 11 | 18 | 25 | ... | 1 | 8 | 15 | 22 | ... | 1 | | 8 | 15 | 22 | 29 | | |
| Th | 5 | 12 | 19 | 26 | ... | 2 | 9 | 16 | 23 | ... | 2 | | 9 | 16 | 23 | 30 | | |
| F | 6 | 13 | 20 | 27 | ... | 3 | 10 | 17 | 24 | ... | 3 | | 10 | 17 | 24 | 31 | | |
| S | 7 | 14 | 21 | 28 | ... | 4 | 11 | 18 | 25 | ... | 4 | | 11 | 18 | 25 | ... | | |

| | APRIL | | | | | | MAY | | | | | | JUNE | | | | | |
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| M | 3 | 10 | 17 | 24 | ... | 1 | 8 | 15 | 22 | 29 | | | 5 | 12 | 19 | 26 | | |
| Tu | 4 | 11 | 18 | 25 | ... | 2 | 9 | 16 | 23 | 30 | | | 6 | 13 | 20 | 27 | | |
| W | 5 | 12 | 19 | 26 | ... | 3 | 10 | 17 | 24 | 31 | | | 7 | 14 | 21 | 28 | | |
| Th | 6 | 13 | 20 | 27 | ... | 4 | 11 | 18 | 25 | ... | 1 | | 8 | 15 | 22 | 29 | | |
| F | 7 | 14 | 21 | 28 | ... | 5 | 12 | 19 | 26 | ... | 2 | | 9 | 16 | 23 | 30 | | |
| S | 1 | 8 | 15 | 22 | 29 | ... | 6 | 13 | 20 | 27 | ... | 3 | 10 | 17 | 24 | ... | | |

| | JULY | | | | | | AUG. | | | | | | SEPT. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 2 | 9 | 16 | 23 | 30 | | 6 | 13 | 20 | 27 | | | 3 | 10 | 17 | 24 | ... | |
| M | 3 | 10 | 17 | 24 | 31 | | 7 | 14 | 21 | 28 | | | 4 | 11 | 18 | 25 | ... | |
| Tu | 4 | 11 | 18 | 25 | ... | 1 | 8 | 15 | 22 | 29 | | | 5 | 12 | 19 | 26 | ... | |
| W | 5 | 12 | 19 | 26 | ... | 2 | 9 | 16 | 23 | 30 | | | 6 | 13 | 20 | 27 | ... | |
| Th | 6 | 13 | 20 | 27 | ... | 3 | 10 | 17 | 24 | 31 | | | 7 | 14 | 21 | 28 | ... | |
| F | 7 | 14 | 21 | 28 | ... | 4 | 11 | 18 | 25 | ... | 1 | | 8 | 15 | 22 | 29 | ... | |
| S | 1 | 8 | 15 | 22 | 29 | ... | 5 | 12 | 19 | 26 | ... | 2 | 9 | 16 | 23 | 30 | ... | |

| | OCT. | | | | | | NOV. | | | | | | DEC. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | 1 | 8 | 15 | 22 | 29 | | 5 | 12 | 19 | 26 | | | 3 | 10 | 17 | 24 | 31 | |
| M | 2 | 9 | 16 | 23 | 30 | | 6 | 13 | 20 | 27 | | | 4 | 11 | 18 | 25 | ... | |
| Tu | 3 | 10 | 17 | 24 | 31 | | 7 | 14 | 21 | 28 | | | 5 | 12 | 19 | 26 | ... | |
| W | 4 | 11 | 18 | 25 | ... | 1 | 8 | 15 | 22 | 29 | | | 6 | 13 | 20 | 27 | ... | |
| Th | 5 | 12 | 19 | 26 | ... | 2 | 9 | 16 | 23 | 30 | | | 7 | 14 | 21 | 28 | ... | |
| F | 6 | 13 | 20 | 27 | ... | 3 | 10 | 17 | 24 | ... | 1 | 8 | 15 | 22 | 29 | ... | | |
| S | 7 | 14 | 21 | 28 | ... | 4 | 11 | 18 | 25 | ... | 2 | 9 | 16 | 23 | 30 | ... | | |