WASC 1852

PERME Rules and Procedures

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MR P. 5 HONEY
PR

PROCUREMENT EXECUTIVE MINISTRY OF DEFENCE

> RULES AND **PROCEDURES**

PROPELLANTS, EXPLOSIVES AND ROCKET MOTOR ESTABLISHMENT WALTHAM ABBEY, ESSEX

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PROCUREMENT EXECUTIVE MINISTRY OF DEFENCE

RULES AND PROCEDURES

PROPELLANTS, EXPLOSIVES AND ROCKET MOTOR ESTABLISHMENT WALTHAM ABBEY, ESSEX

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PROPELLANTS, EXPLOSIVES AND ROCKET MOTOR ESTABLISHMENT WALTHAM ABBEY, ESSEX

IN CASE OF EMERGENCY

DIAL 222

STATE ASSISTANCE REQUIRED AND YOUR LOCATION

PROCUREMENT EXECUTIVE MINISTRY OF DEFENCE

PROPELLANTS, EXPLOSIVES AND ROCKET MOTOR ESTABLISHMENT, WALTHAM ABBEY, ESSEX

PERME (WALTHAM ABBEY) SAFETY POLICY

In keeping with the Ministry of Defence Procurement Executive Safety Policy promulgated in DCI Civilian 391 1980 and with the requirement of Section 2 (3) of the Health and Safety at Work Act 1974:

It is the declared policy of the Management of this Establishment to observe the provisions of the relevant safety and health legislation as far as it is reasonably practicable to do so, irrespective of whether the provisions do or do not in Law apply.

It is also the policy that where particular provisions do not apply to the Crown, health and safety standards shall as far as reasonably practicable at least equal the statutory requirement.

To this end services provided include a fully manned Fire and Ambulance Service, a Surgery and medical staff, a Safety Section and trained First Aid personnel.

The Establishment Safety Officer is responsible to Director PERME for the implementation of all Safety and Explosives legislation, Statutory Instruments, Codes of Practice and Safety Memoranda.

The Establishment's Health and Safety Committee composed of Safety Representatives and Management meets regularly under the chairmanship of the Director to consider matters of health and safety as they affect the work.

HEALTH AND SAFETY AT WORK ETC ACT 1974

Under the H & SAWA additional responsibilities fall upon Management and Staff Side.

These responsibilities as they effect us call upon Management to provide:

Safe facilities, plant equipment and machinery

Safe systems of work

Safe and healthy places of work with safe access and egress

Information on matters of Health and Safety

Training of personnel to carry out their tasks safely.

Under Section 7 of the Act Staff have a duty to take all reasonable care to avoid injury to themselves and to others and to co-operate with Management in meeting Statutory requirements.

As designers, manufacturers and suppliers we must ensure that risks to health and safety are reduced to an absolute minimum and that any products are safe when being properly handled, transported or used.

ADMINISTRATION OF THE RULES

This booklet, divided into:

Section 1 Rules

Section 2 Procedures

is issued to all personnel in the Establishment.

It should be kept in good condition and surrendered on termination of service in the Establishment.

It is important that you should be conversant with the contents and at intervals decided by each Branch Superintendent the essential details will be emphasised.

Special rules and operating procedures will be discussed at Branch Safety Meetings.

Heads of Sections are responsible for the enforcement of the rules within their section.

Any infringement of the rules will render the offender liable to disciplinary action.

Certain subjects in the booklet are expanded in Safety Standing Instructions (SSI) copies of which are issued down to Section level.

Copies of "Emergency Procedure in the Event of Fire or Accident" are also issued down to Section level.

SECTION 1

GENERAL RULES

1 CONDUCT AND DISCIPLINE

1.1 Entering or Leaving the Establishment

No person is to enter or leave the Establishment except by the authorised gates manned by the MDP (Ministry of Defence Police). Passes are to be shown on entry.

1.2 Forbidden Articles

All personnel are borbidden to bring the following items into the Establishment without the written permission of a Superintendent or the Director

Cameras

Firearms

Video or Tape Recorders

Radio Transmitters

Domestic Animals

Radio receivers may not be used without permission of the Superintendent of the area concerned.

1.3 Contraband Areas

Contraband items comprise:

Tobacco, pipes, cigarettes, matches, lighters or any means of procuring a light or flame

Alcohol

Medicines or drugs

Battery or mains operated equipment of any type other than approved issue items.

The above items may not be taken into any area defined by a notice as a Contraband area other than by special authority from the Head of Section. Such items must be deposited in the box provided at the main entrance to each area.

Vehicles may not enter a contraband area without permission of the foreman of the section. Any person finding him/herself in possession of contraband in a defined area should immediately report the fact to his/her senior officer or ask the police to collect it - no disciplinary action will be taken for a genuine mistake. All persons are liable to search within a contraband area by the MDP, Safety Officer, a Safety Assistant or the Foreman of the area. Disciplinary action will be taken against offenders.

1.4 Government Property

All employees are held responsible for the safe custody of, and for preventing wasteful or improper use or theft of, Government property in their charge.

All persons are liable to be searched within the Establishment area and must submit themselves or any bag, parcel or vehicle to be searched when entering or leaving the Establishment if so requested by the MDP.

1.5 Smoking

Smoking is forbidden in the open but is permitted in certain buildings authorised by the Director.

1.6 Barrier Boards etc

No person is to pass any board, flag or notice forbidding entry.

1.7 Conduct

All persons are to avoid skylarking or other irresponsible conduct.

1.8 Keys

Keys for buildings will be issued to authorised personnel by the MDP. All keys must be returned, after securing building at the end of the day, to the MDP for secure custody.

1.9 Food

To avoid contamination the consumption of food or beverages in laboratories or process buildings is forbidden.

1.10 Exits of Buildings

All doors and passageways must be kept clear of obstruction. Doors of buildings in use are to be kept unlocked and unbolted unless fitted with a quick release mechanism.

1.11 Security of Buildings

When not in use buildings are to be kept locked with windows securely closed. Any variations from this must be agreed with the MDP.

1.12 Anything Unusual

All personnel are to report to higher authority any unusual or apparently dangerous occurrence they may observe.

1.13 Establishment Cleanliness

Plant, buildings and the Establishment generally are to be maintained in a clean condition and free from accumulations of waste. All forms of waste must be separated and stored in the appropriate bins for collection and disposal. In particular oily rags must be removed immediately.

1.14 Emergencies

For all Emergencies dial 222 - state details and your location as shown on telephone - See "EMERGENCY PROCEDURE IN THE EVENT OF FIRE OR ACCIDENT".

1.15 Accidents

All accidents or injuries are to be reported to the person in charge of the building or the foreman who will forward a Form ROF 47 to the Surgery.

People with personal injuries should in their own interest report to the Surgery for treatment.

All injuries whether treated by a first aid attendant or the Surgery must be recorded in the Section Accident Book BI 510.

If the injury results in or is liable to result in at least 3 days absence then a form 999 must be completed and all accidents resulting in a 3 day injury will be recorded by Admin Branch in the Blue Book F33 and reported to the DHSS on Form BI 76 HSE.

1.16 Accidents resulting in Death or Serious Injury

Any accident resulting in death or serious injury and any incident which, except by sheer chance, could have been more serious must be entered in the Blue Book and reported to HSE by Admin Branch.

SAFETY RULES

2 TRAFFIC RULES

2.1 Traffic Regulations

All drivers must comply with the current Road Traffic Act and associated Highway Code.

2.2 Speed Limit

The speed limit in the Establishment is generally 20 mph except in the Stores area which is 5 mph. Vehicles on Emergency call may exceed the limit with due regard to the safety of others.

2.3 Driving Licence

All drivers must hold a current driving licence for the class of vehicle being driven. Crown vehicles may only be driven by personnel additionally holding a Crown Vehicle Driving Licence.

2.4 Lighting

All vehicles, bicycles etc must comply with normal lighting regulations.

2.5 Loading

Vehicles must be carefully loaded and if by necessity a load overhangs the overhang must be indicated by a white flag. Loads are to be secured and this particularly applies to containers of liquid gases.

2.6 Electric Towing Units

All drivers of Electric Towing Units must be trained and approved by an experienced officer. They must wear safety footwear when driving.

2.7 Fork Lift Trucks

Drivers of fork lift trucks must hold a certificate of competence issued by one of the recognised training organisations and submit themselves for an annual medical check.

2.8 Riding on Vehicles

No person is to ride on vehicles or tractors which are not specifically designed with a passenger seat except with the special permission of a responsible officer.

2.9 Seat Belts

Drivers and passengers are advised to wear seat belts where provided.

3 MACHINERY AND TOOLS

3.1 Guarding of Machinery

All moving parts of machinery must be provided with guards which must be fixed in position during use.

Moveable guards such as on presses etc must be fitted with cut off switches or locking devices.

- 3.2 Where essential to inspect, adjust or clean machinery in motion this may only be performed by an authorised "machinery attendant".
- 3.3 Worn tools, mushroom-headed chisels, split handles etc must not be used. The fact that the tools may be personal property does not permit their use if in a dangerous condition.

The foreman in charge of each department or section is responsible for carrying out a monthly inspection and rejecting any tools which appear to be dangerous.

4 SCAFFOLDING, LADDERS AND STEPS

- 4.1 <u>Ladders and Steps</u> are issued by the Rigger who is responsible for testing and maintenance. When held by a section they are to be adequately stored and any defects reported to the Rigger.
- 4.1.1 Ladders when in use are to be footed by a second person or adequately tied to prevent movement.
 - 4.1.2 Ladders for access must extend 3'6" beyond the access point.
 - 4.1.3 It is an offence to knowingly use a defective ladder or steps.
- 4.1.4 Ladders are not to be placed or left in positions giving access to unguarded machinery or electric cables. Such machinery or cables must be isolated before access is permitted.
- 4.1.5 Ladders must not be permitted to come into contact with acids or other materials liable to cause corrosion.
- 4.1.6 Metal ladders or steps must not be used in close proximity to live electrical equipment or cables.
- 4.2 <u>Scaffolding</u> is to be constructed with due regard to the normal accepted safety standards under the direction of the Building Works Foreman.
- 4.2.1 No person is to use a scaffold above 6 feet 6 inches unless fitted with adequate hand rails and toeboards.

5 SAFETY PRECAUTIONS FOR LABORATORIES

- 5.1 Work on different categories or compatibility groups of explosives should be separated into different sections of a laboratory. (See SSI No 16).
- 5.2 All laboratories in which explosives are handled must be licensed. Amounts should be kept to an absolute minimum. No explosives must be left uncovered.
- 5.3 Solvents in greater quantities than hand bottles, and explosives must be removed at the end of the day to stores or magazines as appropriate.
- 5.4 Filter and catchpots in the drains must be cleaned regularly and any waste disposed of according to the laboratory instructions.
- 5.5 Care must be taken not to dispose of poisons, solvents or large amounts of acids or alkalis to the main drainage. Small amounts of acids or alkalis must be washed down with copious amounts of water.
- 5.6 All wastes must be removed at the end of each day. Explosives waste must be separated into the various categories and stored in appropriately labelled buckets in the waste but for collection.

Acids, alkalis, flammable solvents and chlorinated solvents must also be clearly labelled and kept quite separate from each other and explosives. Waste solvent containers must not be fitted with ground glass stoppers.

NOTE: Chlorinated solvents are liable to react with aluminium.

- 5.7 No initiating explosives are to be placed in the waste hut but must be dealt with according to the special instructions for the laboratory.
 - 5.8 Solvents are normally stored in flame resistant cabinets.
- 5.9 Winchesters must be transported in carriers and never carried by the neck.
 - 5.10 Acids bottles in a laboratory should be stood in drip trays.
- 5.11 All gas and electrical equipment should be turned off when not required.
- 5.12 Care should be exercised in the use of glass apparatus and when using a glass system under pressure or vacuum eye protection must be used.
- 5.13 Always store chemicals out of sunlight. Glass bottles form a lens in sunlight and plastic bottles are liable to degrade by autoxidation.
- 5.14 In the interests of safety all new experimental work must be discussed with the Head of Section or Superintendent before commencing. (See SSI No 4).

- 5.15 Work on explosives or hazardous materials should be performed in an armoured cupboard which will be marked with its maximum capacity.
- 5.16 Ovens for heating flammable materials must be carefully selected (See SSI No 13).

6 RADIOACTIVE MATERIALS AND X-RAYS

- 6.1 The use of radioactive materials and X-rays is strictly controlled and demands special discipline.
- 6.2 All personnel involved are subject to regular medical surveillance and film badge monitoring by the Royal Naval Radiation Protection Service.

 Advice is available from the Safety Officer.
- 6.3 No radioactive source may be brought into the Establishment without prior consultation with the Safety Officer and his approval.

7 SAFETY APPLIANCES

7.1 Fire Fighting Equipment

In conjunction with FBO who has responsibility for the Establishment fire fighting equipment, the person in charge of each building must ensure that hoses, buckets and extinguishers are in the correct position and that such equipment is used for fire fighting purposes only.

7.2 First Aid Equipment

First Aid boxes and eye wash materials are provided at strategic points throughout the Establishment and normally in the charge of a qualified first aider.

7.3 Breathing Apparatus

Self contained compressed air breathing sets are placed in areas where there is a possibility of contamination of the air by toxic fumes.

7.4 Life Belts

Life belts are provided on river banks.

7.5 Harness

Harness and test equipment to be used when entering confined spaces, sewer pits, boilers etc are available from the Fire Brigade.

7.6 Test Equipment

Test equipment of various types for monitoring sound levels, ionising radiation, asbestos fibres, flammable gas etc is available through the Safety Section.

7.7 Oxygen Resuscitation Equipment

This equipment is available from the Surgery and is also carried in the ambulance. It can be supplied for special hazards with the permission of the Medical Officer.

7.8 Bath or Showers and Eye Wash Bottles

These are placed for emergency washing, in places of high risk of chemical splashing.

8 PERSONAL SAFETY EQUIPMENT

8.1 Hard Top Hats

Are issued for building work, climbing amongst machines etc.

8.2 Safety Spectacles - Goggles etc (See SSI No 9)

Are issued as appropriate and as scheduled in the Protection of Eyes Regulations 1974. Full eye protection is required for pouring bulk solvents, acids or liquified gases. Prescription Safety Spectacles are supplied for personnel working in explosives laboratories, machine shops and other areas with a possible eye hazard.

8.3 Face Visors

Must be used where there is a flame or flash hazard.

8.4 Dust Masks or Respirators

Are issued as appropriate to personnel working in dusty conditions, eq handling lead and copper salts, asbestos etc.

8.5 Clothing

Protective clothing of various types is issued as appropriate to the work in hand. Flame resistant clothing is issued for use in explosive manufacture and processing.

8.6 Footwear

The general issue of outdoor footwear to process workers is the safety type with steel toe caps and should be worn at all times other than in an explosive building. Steel toe cap boots are also issued to other personnel, eg transport personnel handling gas cylinders, sheet metal storemen etc. Electricians are issued with non-conducting footwear. For "clean footwear" see para 10.4.

9 CYLINDERS AND CONTAINERS OF COMPRESSED OR LIQUIFIED GASES

- 9.1 Cylinders or containers must be handled carefully and must not be dropped or bumped.
- 9.2 Valves must be kept clean and valve outlets "snifted" before attaching any fitting to ensure freedom from loose dirt.
 - 9.3 Cylinders must be strapped in position or in a stand when in use.
- 9.4 Cylinders or containers must not be placed near heat or combustible materials.
- 9.5 Oil or grease must never be used on gauges, valves or pipe lines, serious explosions can occur particularly with oxygen.
- 9.6 Only gauges appropriate to the gas involved and to the gas suppliers recommended pressure may be used.
 - 9.7 Gauges must be restricted to one type of gas and not interchanged.
- 9.8 Suspected leaks in a system may be traced by the application of soap solution. Naked flames must never be used.
 - 9.9 Cylinders and containers should be stored in the shade.
- 9.10 Empty cylinders or others no longer required must be returned to Stores.
 - 9.11 Partially used cylinders must be appropriately labelled.

10 DANGER BUILDING RULES

- 10.1 <u>Danger Building Clothing</u> is issued to all Process Workers involved with the manufacture of explosives.
- 10.2 The only personal possessions permitted when wearing such clothing is money, locker key and a handkerchief carried in the bag provided. Plain rings which are too tight to be removed and spectacles if required are also permitted.

10.3 Opening Danger Buildings

Before commencing work in any danger building all doors are to be unlocked and unbolted. Keys, locking bars, and bolts are to be hung in the positions provided. Doors once unlocked should be either closed to or fastened back. Danger buildings must be locked if left unattended.

10.4 Footwear

All persons when crossing the barrier into the "clean area" of a danger building must put on some form of clean footwear.

- 10.4.1 Regular workers Replace outdoor footwear with the special shoes or half wellingtons issued on a personal basis.
- 10.4.2 Casual visitors may put on cotton overshoes or goloshes over their own outdoor footwear.
- 10.4.3 Certain special buildings are subject to an experiment where a person may enter in outdoor footwear which is free of blakies or metal tips which is rendered free of grit on the soles by walking over a sticky mat.
- 10.4.4 Casual visitors should prior to entry to the building clean trouser turn-ups and footwear of any dirt.

10.5 Danger Building Limits

All danger buildings are licensed by the Chief Safety Officer upon application by the Safety Officer. The limits are posted in each explosives building. The senior employee in the building is reponsible that the quantity and type of explosive, and the number of workers permitted by the licence are not exceeded.

10.6 Operating Instructions

All operations in danger buildings, firing pits etc are to be performed in accordance with the Special Rules and Operating Instructions applicable to the process.

Undue force with tools must be avoided and any difficulty encountered referred to the scientist in charge.

No experiments or deviations from the normal process are permitted without the authority of the Branch Superintendent.

10.7 Handling of Explosives and Explosives Receptacles

- 10.7.1 Explosives must be handled carefully and not exposed to sunlight.
- 10.7.2 Explosive containers, boxes and bags must be clean and examined inside before use, for freedom from foreign matter.
- 10.7.3 All explosives and filled stores are to be kept covered except when being worked upon.
- 10.7.4 Containers of explosives must not be roughly handled or dropped. They are to be lifted clear from place to place and not dragged or slid along.
- 10.7.5 Bags containing explosives must be securely tied and lids of boxes securely fixed before conveyance.

10.8 Cleanliness

All explosive buildings must be kept clean and free from grit, leaves, and unnecessary accumulations of materials.

10.9 Spillage of Explosives

The clearance of a spillage of explosives must be supervised by the Scientist in Charge, and no attempt should be made to move any spilt truck or box etc except under such supervision.

10.10 Steam Pipes

Explosives are not permitted within 2 feet, and timber and other flammable substances within 6 inches of steam pipes, boilers and ovens except under controlled conditions in well tried processes. (See SSI No 17 - Pipeline Identification Colours).

10.11 Aluminium Paint

Is not used in Explosive Buildings other than on timber.

10.12 Fires (See Para 14.4)

No fires, naked lights etc are permitted in or near an explosives building. This includes electric drills, petrol or diesel driven vehicles etc.

10.13 Thunderstorms

On the approach of a thunderstorm it is normal for the person in charge to call a halt to the processing of explosives, in accordance with any special rules for the building. The buildings should be locked and vacated.

10.14 Antistatic

Certain buildings containing explosives sensitive to an electric discharge are subject to stringent regulations regarding earthing, flooring, footwear, electric supply etc and due regard must be taken of these special precautions.

SECTION 2

OPERATIONAL RULES AND PROCEDURES

11 AUTHORISATION OF BUILDINGS AND PLANT FOR EXPLOSIVE USE

- 11.1 All buildings and plant for use in connection with explosives must be approved by the Safety Officer.
- 11.2 All changes of use or the introduction of a new process must similarly be approved by the Safety Officer.

12 EXPLOSIVES LIMITS. USE LIMITS

- 12.1 The details of the licence must be exhibited in every Explosive Building.
- 12.1.1 The Explosives Limits. Give details of weight limit, the classification and compatibility group. (See SSI No 16)
- 12.1.2 The Man Limit. This gives the maximum and the normal number working in the building.

The man limit does not include visitors and members of supervisory staff although the person in charge can limit the number of visitors if there is a danger of obstruction or overcrowding.

- 12.2 Process buildings should have a copy of the process working instructions posted up inside.
- 12.3 Use List. A copy of a list of all normal tools held in the process building should be posted and tools checked daily against such list.
- 12.4 All magazines and explosive store houses must have a stock list (see Appendix B) posted and additions of removals from stock noted so that the list will always show the content of the building.

The Safety Section use these stock lists to assess the monthly stock position.

13 FIRING POINTS (See SSI No 7 and No 8)

All firings for a day must be reported to a Safety Assistant before 9.00 am in order that a list can be submitted to the Director daily.

- 14 <u>CLEARANCE PROCEDURE FOR EXPLOSIVES BUILDINGS AND PLANT</u> (Form S230A See Appendix A)
- 14.1.1 Before any repairs (other than a minor repair provided for in Section 2 Para 14) to building or plant is commenced, that plant or part of a building must be cleared of explosives, acids, solvents, etc.
- 14.1.2 A Form S230A must be submitted by a responsible person (foreman or scientist) stating that the building and/or plant is free from explosives.
- 14.1.3 A Safety Assistant will check and if satisfied approve the work to proceed with any reservations such as isolation of electrical or gas supplies.
- 14.1.4 When the work is complete the Trades Foreman will sign the form to say that the work is complete and conforms to the standard required and any relevant statutory requirements.
- 14.1.5 The Section Staff will clean the area and plant and if satisfied that all is clean and tools removed the Safety Assistant will approve recommencement of normal work.
- 14.1.6 The Scientist in Charge gives the final approval for normal work to proceed.
- 14.2 No undue force must be used in dismantling plant, tight nuts and bolts may be treated with easing oil.
- (<u>NOTE</u>: Except on plant which has been in contact with a perchlorate or chlorate.)

In some areas the working instructions may recommend phosphor bronze tools to be used.

- 14.3 During the dismantling of Explosive plant a process worker must stand by to deal with any explosive which is revealed.
- 14.4 No naked flame welding equipment or portable electrical equipment eg drills, is permitted inside or outside the building without approval of a Safety Assistant. Application for a flame paper is made on Form SS3 (See Appendix E).
- 14.5 Precautions must be taken to preserve the floors of buildings under repair and it is recommended that dust sheets are used to prevent dust and grit being trodden in.

- 14.6 Solvents for cleaning should be avoided if possible owing to possible toxicity/flammability. If solvents are to be used in cleaning the building must be well ventilated and spillage must be avoided.
- 14.7 Where plant is cleaned by solvent before welding then the plant must be finally steamed to remove the solvent and the information supplied on the fire paper.
- 14.8 Rags contaminated with solvent or oil must be removed from the building as soon as practicable and stored outside to await disposal.
- 14.9 Plant before transfer to a repair shop must be thoroughly cleaned and certified as such by the Scientist in Charge. If there is any doubt it will be submitted to the Safety Section for decontamination together with completed form SS1 (See Appendix C) giving details of possible contamination and treatment so far given. A certificate of decontamination Form SS2 will be issued by the Safety Section (See Appendix D).
- 14.10 No plant will be stored for possible future use until it is certified clean and will be marked in white or red paint to show up distinctively:

One dot for rough cleaning

Two dots for thorough washing-clean

Three dots for flame or fire treatment - free from explosives

- 14.11 Pipework must not be sawn but roller cutters used, and before complete penetration is reached the pipe is to be broken.
- 14.12 Contaminated lead is not to be re-used but passed to the Burning Ground for decontamination by burning.

15 EMERGENCY OR MINOR REPAIRS TO EXPLOSIVES PLANT OR BUILDINGS

15.1 Where minor repairs or adjustments are necessary to enable normal work on or manufacture of explosives to proceed this may be performed under the personal supervision of the Scientist in Charge or a responsible person appointed by him/her.

All explosives must be covered and the tradesmen involved must not work in intimate contact with any explosives.

This relaxation does not apply to the use of naked flames or electric drills etc, for which a fire paper would still be required.

16 REPAIR OF PLANT, TANKS, PITS ETC, WHERE DANGEROUS FUMES MAY BE PRESENT

16.1 Entry to tanks, pits etc is subject to special precautions of safety harness, availability of breathing apparatus etc, as written in Chemical Work Regulations Section 7.

17 WASTE AND SALVAGE

17.1 Waste and surplus explosives, are collected on a routine basis (See SSI No 15) and are disposed of by the Safety Section.

Waste explosives must be segregated into types and the containers labelled and stored according to the Section Working Instructions.

Special disposals may be made by arrangement with the Safety Section.

<u>NOTE</u>: Initiators and pyrotechnic disposals and large amounts of surplus explosives are always made by special arrangement.

- 17.2 All explosives contaminated waste is to be disposed of on the Burning Ground. Details must be supplied on Form SS1 (See Appendid C). Timber, leather, cloth, paper, solvents etc are burnt iron, brass, copper etc are decontaminated by fire and put to salvage lead is melted down and recycled.
- 17.3 Flammable solvents and chlorinated solvents must be clearly labelled and stored separately from each other for disposal on the Burning Ground. Waste solvent containers must not be fitted with ground glass stoppers.
- NOTE: Chlorinated solvents are liable to react with aluminium.
- 17.4 Uncontaminated waste, unsuitable for salvage, is collected outside buildings in dustbins which are emptied by local arrangement into one of the skips placed at several points of the Establishment.
- 17.5 Uncontaminated metal is disposed of at the appropriate scrap metal collection point.
- 17.6 Mercury batteries are handed to the Safety Section for return to a manufacturer.
- 17.7 Security classified paper waste must <u>not</u> on any account be placed in a skip; it is collected and disposed of regularly by the Labour Pool.
- 17.8 Aerosol cans must not be placed in waste to be burned within the Establishment they must be sent separately to the Burning Ground for disposal.
- 17.9 Solvent, acid and oil drums are cleaned on the Burning Ground before disposal.
- 17.10 Large quantities of oil, acid etc are subject to special disposal arrangements by contract.

18 TRANSPORT OF EXPLOSIVES (See SSI No 14)

18.1 The transport of explosives is governed by:

Road Statutory Instrument No 888 of 1977
Rail Statutory Instrument No 889 of 1977
Sea Statutory Instrument No 890 of 1977
Air Although generally forbidden is governed by

Air Although generally forbidden is governed by

IATA requlations

Post Completely forbidden

- 18.2 Explosives for transport must be correctly packed and boxes labelled with the classification and address. The explosives must have a Safety Certificate and in the event of transport other than to a Government Establishment or under control also have an ESTC classification.
- 18.3 All requests for the movement of explosives must be submitted on Form SAS 45 (See Appendix F) through the Establishment Safety Officer who will approve the movement after assuring himself of the classification.
- 18.4 Drivers must be conversant with "Instructions to Drivers" ESTC 220, Leaflet 20.

19 WORKING OUTSIDE NORMAL HOURS (See SSI No 6)

19.1 Outside normal working hours, permission to work must be obtained from the PS. If a person is working on explosives or dangerous processes then a second person must be available in the vicinity to render assistance if necessary. In any event the MDP must be informed and Safety Officer who will decide upon necessary cover by the Emergency Services.

20 SOLVENTS

- 20.1 The use of solvents will be governed by local Working Instructions. Bulk storage of flammable solvent must conform to the requirements of the Petroleum Regulations. Hence the provided storage buildings must be used.
- 20.2 Drums must be opened in the open air or in a well ventilated building. When pouring flammable solvent from a drum the drum must be earthed with the detachable earthing tape. See Rule 14.7 (Contaminated Rags) and 17.9 (Disposal of Empty Drums).
- 20.3 The choice of solvents used should be made as far as possible using the least toxic and least flammable suitable for the requirement.
 - 20.4 Goggles must be worn for pouring from bulk containers.

21 PORTABLE ELECTRICAL EQUIPMENT

- 21.1 No portable electrical equipment drills, hammers, grinding wheels etc will be put into use until inspected by the Electrical and/or Engineering Sections. The equipment must then be submitted to the Electrical Section for inspection every three months or earlier if a fault is suspected.
- 21.2 As far as is practicable all electrical equipment for use in the open will be low voltage operating from an isolation centre tap transformer.

22 ABRASIVE WHEELS

22.1 The use, marking, guarding and mounting of wheels is governed by the Abrasive Wheels Regulations 1970. Wheels may only be mounted by authorised trained personnel.

23 ASBESTOS

23.1 The use of asbestos and asbestos containing materials is now discouraged but where its use is essential the handling, disposal, dust extraction and personal protection are all governed by the Asbestos Regulations 1969.

S.230A

DANGER BUILDING CLEARANCE CERTIFICATE

Building	Section
Nature of Work BWD	
Electrical	
Machinery	
Plumbers	
The above work is authorised, subject noted overleaf.	to clearance and to any precautions
• • • • • • • • • • • • • • • • • • • •	Scientist-in-Charge
Safety Visitor All explosives or dangerous chemisolated.	icals have/have not been removed and plant
•••••• 19 •••	Branch Foreman/Scientist-in-Charge
Foreman (Trades Section) Safe for work to proceed except a	as noted overleaf.
•••••• 19	Safety Visitor
Scientist-in-Charge Work completed.	
•••••••••••••••••••••••••••••••••••••••	Foreman (Trades Section)
Scientist-in-Charge Plant, machinery and building tho	roughly cleaned and ready for operation.
•••••• 19	Safety Visitor
Building and plant ready for operation	
••••••• 19	Scientist in Change

MAGAZINE STOCK SHEET

BUILDI	NG Ne	DATE:19			
DATE	STOCKS IN	STOCKS OUT	BALANCE	INITIALS	
			v ²		
554					

REQUEST FOR DECONTAMINATION OR DISPOSAL OF EQUIPMENT AND STORES

To Safety Section

Please decontaminate
WA No
It has been contaminated with
been given to the item
After decontamination please return to dispose to scrap
Signed
Section
Date
Please complete the above as appropriate and delete where necessary.

Form SS1

CERTIFICATE OF DECONTAMINATION OR DISPOSAL	
Certificate No	
To	
The following item has been decontaminated disposed of	0 0 0 0 0 0 0 0 0 0 0 0 0 0
6 0 6 0 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Signed	
Data	

Form SS2

ESO			
Permission for t	he use of the following	g is requested:	
Fire/Equipment: Date: Time: Place: Purpose:	To To		
		Signed:	
		Section:	
To:		Date:	
The above request is Special instructions	approved.		
		Signed: Safety Sec	tion
TOP DOS 240 000 DOS TOP DOS DOS DOS DOS DOS		Date:	
			918 MINE 618 pt.s 600 6
FIRE PERMIT			
SERVICES/ELECTRICAL/	BWD		
Permission is gra	nted for the use of th	e following:	
Fire/Equipment:			
Date: Time: Place: Purpose:	To To		
Special instructions:	·		
		Signed Safety Secti	.on
no era era vad nag era saa too era saa gaa en		Date:	
TTDO		ra lora ena est det lena ena gua anta anta plas cuar que anta esta gu	does only and and acr
FBO Please supply a li Section:	ght to:		
Place:			
Date: Time:	To To		
To be extinguished by			
		Signed:	
		Date:	• • • • • • • •
SS3 (Revised August 19	3 77)		

REQUEST FOR USE OF A FIRE, INTERNAL COMBUSTION ENGINE OR ELECTRICAL EQUIPMENT