

# CELANESE CORPORATION

## ADMINISTRATIVE PROCEDURE

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|---------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| RESPONSIBLE ISSUING DEPT.<br><br>CORPORATE SAFETY | SECTION: LOSS PREVENTION<br><br>SUBJECT: PURCHASING SAFETY APPROVED EQUIPMENT | PROCEDURE NO .....8-23<br><br>PAGE ..... 1 of 7<br><br>DATES:<br>ISSUED September 1975<br>EFFECTIVE September 1975 |
| SUPERSEDES PROC. DATED<br>Eng. Std. E13-4.1       |                                                                               |                                                                                                                    |

### 1 SCOPE

This procedure establishes the policy for the safety aspects of purchased products, materials, equipment and chemicals. It assigns the responsibility of the individuals and groups involved in determining appropriate specifications, making the selection and the purchase of such items, and provides guidelines and information to assure that all purchases comply with Corporate Standards, Codes and local, State and Federal laws that are applicable.

### 2 POLICY

- 2.1 It is Corporate policy, direction and practice to purchase the safest possible equipment, products, and material to insure that the fire-accident-injury experience is kept to the absolute minimum.
- 2.2 Wherever possible, products bearing the safety "Approved" label of an appropriate testing laboratory or agency such as Underwriters Laboratory (UL), Factory Mutual (FM), U. S. Bureau of Mines, National Institute for Occupational Safety and Health (NIOSH), American Society of Mechanical Engineers (ASME), American Society for Testing and Materials (ASTM), etc., will be given preference to other products.

### 3 GENERAL

It is not the intent of this procedure to specify fully the safety requirements for any given equipment or material nor to present a formal procedure for investigating the safety aspects of every new product. Experience, training and good judgment will be guiding factors in determining how hazardous a new product or machine may be, how thoroughly alternate products should be considered, and the procedures to follow to assure that the safest possible product is obtained.

The investigation and selection may vary in complexity from the simple selection of an "Approved" label device from a catalog to involved meetings between Engineering, Manufacturing, Technical, Purchasing and Safety for items where the potential for fire, accident or business interruption is high.

### 4 RESPONSIBILITY

- 4.1 It is impractical for the local Safety and Plant Protection Department to review every purchase of a new product, chemical, or piece of equipment, nor is it likely that the Purchasing Department will have sufficient knowledge of the safety considerations to adequately judge each purchase. Hence, primary responsibility must rest with the individual (and his department head) initiating the Purchase Requisition.
- 4.2 The initiating individual should utilize the facilities and know-how available in the Engineering, Maintenance, Manufacturing, Technical, Purchasing, and Safety Departments to assist with safety considerations.

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| SUPERSEDES PROC. DATED<br>Eng. Std. E13-4.1       |                                                                               |                                                                                                                   |

4.3 The local Safety and Plant Protection Department will specify and select all personal protection, fire protection, and plant protection supplies and equipment. This will include but not be limited to such items as eye, face, head, hand, foot, and respiratory protection equipment, fire hose, fire extinguishers, safety cans, plant master locks and keys, and other plant protection requirements.

4.4 It is the responsibility of the Safety and Plant Protection Department Head to see that the codes, standards, and reference sources applicable to his facility are readily available, and that there are individuals familiar with the scope and use of the standards and specifications to whom questions from Purchasing or others can be referred.

#### 5 APPRAISAL OF SAFETY CONSIDERATIONS

5.1 In selecting and specifying a new product, chemical, or piece of equipment, the following questions will assist the initiating individual in appraising the safety considerations:

- A What are the potential hazards of this product, what is their magnitude; how can the hazards be overcome through design and selection?  
Example: Is the proposed new equipment equipped with all necessary guards, safety interlocks and automatic or manual cut-offs or must these be added later at the plant? Is an emergency stop needed and properly located? Are manual switches and control valves located for convenient access by the operator?
- B Is it possible to obtain safety "Approved" label products for this service?
- C Is the product covered by any federal, state or local law, regulation, code, standard or recommendation by a recognized agency?
- D Are tests or trials of the item necessary or desirable?
- E Will the product meet required noise standards or will it cause any occupational health problems?
- F Will the product introduce or cause any environmental pollution or waste disposal problems?

.2 In answering these questions, it will frequently be necessary and desirable for the initiating party to consult with other groups or individuals within the plant or laboratory (Safety, Purchasing, Manufacturing, Engineering, Technical, Maintenance, etc.) on an informal basis.

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- 5.3 The immediate superior of the initiating individual and the person approving the Purchase Requisition must assure themselves that the questions in paragraph 5.1 have been given adequate consideration before forwarding the requisition to the Purchasing Department.
- 5.4 Where the product is covered by or is subject to federal, state, or local law or regulations, the Purchase Order must include a statement that the product as furnished, must comply fully with the applicable safety laws and regulations of the Federal Government and the State and Municipality in which it is to be used.
- 5.5 If the Purchasing Department has some doubt as to the adequacy of safety considerations, the matter should be referred to the local Safety Department for review and recommendations.

Should there be unresolved conflict of opinion concerning the safety aspects of a particular item, the local Safety Department will refer the matter to the Corporate Director, Safety and Plant Protection for his review and recommendation.

## 6 REFERENCE SOURCES

- 6.1 For any given piece of equipment or product, there may be a number of potential safety hazards which might be overlooked by those not experienced in accident and fire prevention work. There are numerous publications and reference sources available on file in or through the local Safety office that provide comprehensive information and guidance. Those involved in the appraisal, selection and purchase of safety approved products are encouraged to use these reference sources.
- 6.2 Following is a listing of reference publications and organizations offering safety oriented codes, standards, specifications and guidelines for good practice: (See paragraph 6.3 for addresses)

### A General (Wide Coverage)

1. Accident Prevention Manual - National Safety Council
2. American National Standards - American National Standards Institute
3. Approved Guide, Equipment and Materials - Factory Mutual Engineering
4. Best's Safety Director - A. M. Best Company
5. Data Sheets - National Safety Council
6. Equipment & Materials Testing & Approval - Underwriters Laboratories
7. Handbook of Industrial Loss Prevention - Factory Mutual Engineering
8. Materials of Construction - American Society for Testing & Materials
9. Occupational Safety and Health Standards, OSHA - U. S. Department of Labor
10. Safety Bulletins - Celanese Corporation

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RESPONSIBLE ISSUING DEPT.

CORPORATE SAFETY

SUPERSEDES PROC. DATED  
Eng. Std. E13-4.1

SECTION: LOSS PREVENTION

SUBJECT: PURCHASING SAFETY APPROVED  
EQUIPMENT

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**B Boilers, Pressure Vessels, Piping, Storage Tanks, Electrical**

1. Boiler and Pressure Vessel Code - American Society Mechanical Engineers
2. Boiler and Pressure Vessel Certification - National Board of Boiler and Pressure Vessel Inspectors
3. National Electrical Code - National Fire Protection Association
4. Piping Systems B31.1-B31.8 - American National Standards Institute
5. Petroleum and Refining Safety - American Petroleum Institute
6. Safety in Petroleum Refining - John G. Simmonds & Co.

**C Chemicals - Radiation - Occupational Health**

1. Chemical Safety Data Sheets - Manufacturing Chemists Association
2. Compressed Gas Storage & Handling - Compressed Gas Association, Inc.
3. Dangerous Properties of Hazardous Materials, Sax - Reinhold Pub. Co.
4. Fundamentals of Industrial Hygiene - National Safety Council
5. Guide for Safety in the Chemical Laboratory - Manufacturing Chemists Asso
6. Handbook of Laboratory Safety - Chemical Rubber Publishing Co.
7. Industrial Hygiene and Toxicology, Patty - Interscience Publishers, Inc.
8. Industrial Hygiene Digest - Industrial Health Foundation, Inc.
9. Industrial Noise Manual - American Industrial Hygiene Assoc.
10. Radiation Protection, 10 CFR Part 20 - Atomic Energy Commission
11. Threshold Limit Values - American Conference of Govt. Industrial Hygienist
12. Toxic Substances List - National Institute for Occupational Safety and Health

**D Fire Prevention and Protection**

1. Fire Protection Handbook - National Fire Protection Assoc. (NFPA)
2. Gas Appliances, Certification - American Gas Association
3. Hazardous Materials, Fire Protection Guide - NFPA
4. National Fire Codes - NFPA

**E Personal Protection Equipment, Clothing, and Appliances**

1. Appliances - U. S. Bureau of Mines
2. Certified Personal Protection Equipment - National Institute for Occupational Safety and Health
3. Standards - American National Standards Association

**.3 Addresses of Reference Sources**

American Conf. of Governmental Industrial Hygiene  
1014 Broadway  
Cincinnati, Ohio 45202

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American Gas Association  
605 Third Avenue  
New York, N. Y. 10016

American Industrial Hygiene Assoc.  
25711 Southfield Road  
Southfield, Michigan 48075

American National Standards Inst.  
1430 Broadway  
New York, N. Y. 10018

American Petroleum Institute  
Safety and Fire Protection Service  
1271 Avenue of the Americas  
New York, N.Y. 10020

American Society of Mechanical Engineers  
347 East 47th Street  
New York, N. Y. 10017

American Soc. for Testing & Materials  
1916 Race Street  
Philadelphia, Pa. 19103

Atomic Energy Commission  
Germantown, Md.  
Washington, D. C. 20545

A. M. Best Company  
Park Avenue  
Morristown, N. J. 07960

Chemical Rubber Publishing Company  
18901 Cranwood Parkway  
Cleveland, Ohio 44128

Factory Mutual Engineering Corp.  
1151 Boston-Providence Turnpike  
Norwood, Mass. 02062

Industrial Health Foundation, Inc.  
5231 Center Avenue  
Pittsburg, Pa. 15232

Interscience Publishers, Inc.  
605 Third Avenue  
New York, N. Y. 10016

Manufacturing Chemists Association  
1825 Connecticut Avenue N. W.  
Washington, D. C. 20009

National Board of Boiler & Pressure  
Vessel Inspectors  
1115 North Ohio Street  
Columbus, Ohio 43201

National Fire Protection Association  
470 Atlantic Avenue  
Boston, Mass. 02110

National Institute Occupational  
Safety & Health  
Morgantown, West Virginia 26505

National Safety Council  
625 N. Michigan Avenue  
Chicago, Illinois 60611

Reinhold Publishing Company  
450 West 33rd Street  
New York, N. Y. 10001

John G. Simmonds & Co., Inc.  
111 John Street  
New York, N. Y.

Underwriter's Laboratories  
207 East Ohio Street  
Chicago, Illinois 60611

U. S. Dept. of Health, Education  
and Welfare  
National Institute for Occupational  
Safety and Health  
Rockville, Maryland 20852

U. S. Dept. of Labor  
14th St. & Constitution Ave. N. W.  
Washington, D. C. 20210

Standards may be ordered from:  
Occupational Safety & Health  
Regional Office or  
Government Printing Office  
Washington, D. C. 20402

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**7 CHECK LIST AREAS AND EQUIPMENT (PARTIAL LISTING)**

The following check list represents categories and specific equipment which are well covered by "Approved" label products or "Specification" products, or are areas of particular concern in our plant safety program.

Articles for purchase appearing on this list should be checked carefully for safety considerations against the applicable codes, specifications, and "Approved" label equipment references given in paragraph 6.3.

**ATMOSPHERE CONTROL**

Air Pollution  
Air Heating Systems  
Dust and Fumes  
Air Conditioning  
Atmosphere Analysis  
Radiation Protection -  
AEC Requirements

**CHEMICAL AND SOLVENT SAFETY**

Compatability and Reactivity  
Corrosiveness  
Fire Explosion  
Labeling of Containers and  
Piping Systems  
Proper Storage  
Toxicity and Health Hazards

**ELECTRICAL EQUIPMENT**

Appliances  
Generation and Distribution  
Illumination-Emergency Lighting  
Power and Control  
Power Tools

**FIRE PROTECTION**

Fire Alarm Systems  
Fire Control Equipment  
Fire Extinguishers  
Fire Extinguishing Systems  
Fire Fighting Equipment  
Fire Pumps  
Rescue Equipment  
Fire Prevention Equipment

**GUARDING**

Machinery  
Conveyors  
Floor Openings and Holes  
Walking and Working Surfaces

**HANDLING EQUIPMENT**

Chains - Cable Slings - Crane Hooks  
Chemical Handling  
Conveyor Systems  
Drum Storage  
Elevators  
Gas Cylinders - Accessories  
General Materials Handling Equipment  
Hose - Connections  
Industrial Trucks and Accessories  
Personal Protection Equipment  
Rail and Truck Dock Boards  
Safety Cans - Safety Equipment  
Tank Car-Truck, Loading - Unloading

**LADDERS AND SCAFFOLDING**

Ladders and Accessories  
Maintenance Platforms  
Scaffolding and Accessories

**MEDICAL AND HEALTH MAINTENANCE**

First Aid and Emergency Products  
In-Plant Hospital Equipment  
Skin Cleaning and Protection  
Wash Room Equipment and Sanitation

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**NOISE CONTROL**

Audiometric Testing  
Hearing Protection Equipment  
Noise Analysis Equipment  
Noise Reduction Equipment

**PERSONAL PROTECTIVE EQUIPMENT**

Arm and Hand  
Body and Leg  
Eye and Face  
Foot  
Head  
Respiratory

**PLANT MAINTENANCE**

Floor Maintenance Materials  
Floor and Stair Treads  
Machinery Maintenance Equipment  
Non-Sparking Tools  
Waste Disposal Equipment

**PROCESS EQUIPMENT**

ASME Code Requirements - Pressure Vessel  
Controls and Accessories  
Pressure Relief - Control - Venting

**TRANSPORTATION SAFETY**

Vehicle Maintenance Equipment  
Vehicle Safety Equipment

**UTILITIES**

ASME Code Requirements  
Boilers and Accessories  
Burners  
Fuel and Combustion Controls

**WORKING TOOLS**

Hand Tools and Accessories  
Portable Power Tools  
Welding Equipment and Supplies