

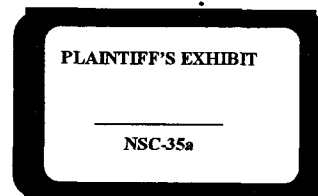
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**34th NATIONAL
SAFETY CONGRESS**

CHICAGO

October 7-11, 1946



VOLUME I

Part 1

**General Subject and
Industrial Sessions**

VOLUME I, Part 2, concludes the Industrial Sessions

**VOLUME II contains the Traffic, Commercial Vehicle, Transit,
School and College, Home, Farm and Women's Activities Sessions.**

National Safety Council, Inc.

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Our record permits us to keep close check on all transformer-bank loads. All bank locations and power circuits are shown on a map at maintenance headquarters to give us a clear picture of the location when trouble arises or when changes are contemplated.

Conclusion

The measure of good maintenance is the length of uninterrupted service of plant equipment. Most production lines are progressive, one machine depending on the adjacent one, one assembly line depending on the one before. However, maintenance men need not, and must not, sacrifice safety methods for experience. Frequently, temporary repairs can be made so that manufacturing processes are not unduly delayed and permanent repairs postponed until a shut-down period. However, extreme caution must be observed to prevent such postponements being overlong and safety sacrificed.

Maintenance personnel should be trained and experienced on all types of electrical equipment. There is possibly a greater degree of efficiency in having each man trained for a specific type of electrical apparatus, such as electronics, cranes, DC generators, air conditioning units, control panel construction and machine controls.

But, in case of an emergency the *specialist* may not be available; there may be two emergencies at one time. It has been our experience that a group of men who can do *all* the different types of work give us a more flexible working force and better job-as-a-whole efficiency.

In addition new men are more easily trained, employees co-operate with each other better, job-jealousy is eliminated, and less production time is lost.

Important Points

1. No person, except an electrician, should open or close a switch.
2. All motor starters should be **MECHANICALLY** blocked out before motor lead wires are disconnected.
3. Under no circumstances allow an electrician to work on high voltage equipment alone.
4. Insist on the use of safety protective equipment regardless of the time element involved.
5. Provide instruction classes for artificial respiration with frequent refresher sessions.
6. Inspect workmen's personal tools frequently and recommend their discard if unsafe for use.
7. Hold briefing session to check new building plans and machine moves for safety hazards. Gas-fired furnaces may be located near combustible or explosive material in the plans—correct them at the source.
8. Insist that areas where repair work is done is cleaned up after completion.
9. Never allow an employee to work a line *hot* unless absolutely necessary, and then only when equipped with the proper safety materials.
10. Ally your department closely with maintenance—you depend on them for hazard correction; they depend on you for advice and instruction.
11. Be on the watch for new and better safety equipment and see that the proper persons are informed.
12. Remember, inspections should be made of all electrical equipment that may in any way become a death-dealing or crippling device.

High Frequency Heating

By A. T. LATTAUZA

Consulting & Application Electronics Eng.
Westinghouse Electric Corp.

When a new tool is introduced to industry the question of safety considerations becomes of primary importance. High frequency heating installations range in power capacity from a few hundred watts to

The high frequency generators take low frequency power from the line, convert it first into DC power and then into high frequency power.

The frequency of the output power of the generator varies between 200 kilocycles

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- *H. B. DUFFUS, Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. 1943-1944.
- *HOYT L. FRACHER, Detroit Steel Products Co., Detroit, Mich. 1930-1931.
- *G. A. KUECHENMEISTER, Dominion Forge & Stamping Co., Walkerville, Ont., Canada. 1925-1926.
- *M. J. MCCARTHY, Fisher Body Detroit Div., General Motors Corp., Detroit, Mich. 1933-1934.
- *ROBERT A. SHAW, Detroit Diesel Engine Div., General Motors Corp., Detroit, Mich. 1920-1921.
- *LT. COMDR. PAUL S. STRECKER, USNR, Boston Navy Yard, Boston, Mass. 1941-1942.
- *R. F. THALNER, Buick Motor Div., General Motors Corp., Flint, Mich. 1924-1925.
- *V. I. TROTTER, Curtiss-Wright Corp., Buffalo, N. Y. 1940-1941.
- *C. E. WOOLIEVER, A. O. Smith Corp., Milwaukee, Wis. 1942-1943.

*Staff Representative—*B. A. GRAINGER, National Safety Council, Inc., Chicago, Ill.

Cement and Quarry Section

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R. A. DITTMAR, Universal Atlas Cement Co., Chrysler Bldg., New York, N. Y.

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Staff Representative—G. G. GRIEVE, National Safety Council, Inc., Chicago, Ill.

Marine Section

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1946-1947

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CAPTAIN FRANK H. COGAN, The Delaware, Lackawanna and Western R. R. Co., Hoboken, N. J.

ARTHUR M. TOOE, Consulting Engineer, New York, N. Y.

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Assistant General Chairman (Public Relations)—CORNELIUS H. CALLAGHAN, Maritime Association of the Port of New York, New York, N. Y.

Assistant General Chairman (Posters)—HAROLD J. SEGRAVE, Mine Safety Appliances Company, New York, N. Y.

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Editor, Marine News Letter—CAPTAIN HENRY BLACKSTONE, United States P. & L. Agency, Inc., San Francisco, Calif.

Assistant Editor, Marine News Letter—E. F. LANGE, Bethlehem-Alameda Shipyard, Alameda, Calif.

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Director, Gulf Region—JOSEPH F. ZUCCA, Consolidated Steel Corporation, Orange, Texas.

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Metals Section

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1946-1947

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*E. F. BLANK, Jones & Laughlin Steel Corp., Pittsburgh, Pa.
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Executive Committee 1946-1947

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*ANGUS D. CAMPBELL, McIntyre Porcupine Mines, Ltd., Schumacher, Ontario, Canada

*W. H. COMINS, Baroid Sales Div., National Lead Co., Texarkana, Texas

*R. DAWSON HALL, "Coal Age," McGraw-Hill Publishing Co., Inc., New York, N. Y.

H. T. HARPER, Tennessee Copper Co., Copperhill, Tenn.

*W. D. HASELTON, Pickands Mather & Co., Duluth, Minn.

*H. C. HENRIE, Phelps Dodge Corp., Bisbee, Ariz.

*GEORGE MARTINSON, Pickands Mather & Co., Cleveland, Ohio.

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R. H. SEIP, The New Jersey Zinc Co., Franklin, N. J.

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*JOHN TREWEEK, Homestake Mining Co., Lead, S. D.

HOWARD I. YOUNG, American Zinc, Lead & Smelting Co., St. Louis, Mo.

Staff Representative—G. G. GRIEVE, National Safety Council, Inc., Chicago, Ill.

*Past General Chairmen

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1946-1947

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Executive Committee 1946-1947

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*C. F. HORAN, Arrow Mutual Liability Ins. Co., Chestnut Hill, Mass.

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G. R. SPANGENBERG, Rainfair Incorp., Racine, Wisc.

*P. VAN CLEEF, Van Cleef Bros., Chicago, Illinois.

Staff Representative—E. A. VAN ATTA, National Safety Council, Chicago, Illinois.

*Past General Chairman

Safety Exposition Exhibitors

EXHIBITION HALL—STEVENS HOTEL

Alphabetical List of Exhibitors of Industrial Safety Equipment

- Acme Protection Equipment Co., Chicago, Ill.
Gas Masks.
- All American Safety Equipment Co., Chicago, Ill.
Power and Kick Press Guards.
- American Abrasive Metals Co., Irvington, N. J.
Safety Treads, Abrasive Paints.
- American Allsafe Co., Inc., Buffalo, N. Y.
Industrial Safety and Fire Protection Equipment.
- American-LaFrance-Foamite Corp., Elmira, N. Y.
Fire Protection Equipment.
- American Mat Corp., Toledo, O.
Safety Matting.
- American Optical Co., Southbridge, Mass.
Industrial Safety Goggles, Respiratory Devices and Protective Clothing.
- Ampco Metal, Inc., Milwaukee, Wis.
Beryllium-Copper Non-Sparking Safety Tools.
- Ansul Chemical Co., Marinette, Wis.
Fire Protection Equipment.
- Automatic Canteen Co. of America, Chicago, Ill.
Supplementary Automatic Feeding Units.
- Bausch & Lomb Optical Co., Rochester, N. Y.
Safety Lenses and Goggles.
- Bear Manufacturing Co., Rock Island, Ill.
Motor Vehicle Inspection and Correction Equipment; Static and Dynamic Balancing Machines.
- Bradley Washfountain Co., Milwaukee, Wis.
Group Washfountains and Multi-Stall Showers.
- John H. Breck, Inc., Springfield, Mass.
Protective Creams and Hand Cleaners.
- Bruson Products Co., Milwaukee, Wis.
First Aid Cabinets and Industrial Medical Supplies.
- R. H. Burke Co., Chicago, Ill.
Safety Equipment and Products for Construction and Maintenance Work.
- Cardox Corporation, Chicago, Ill.
Fire Extinguishing Systems, Fire Trucks and Mobile Extinguishing Equipment.
- Chicago Eyeshield Co., Chicago, Ill.
Head and Eye Protection Equipment.
- Columbus-McKinnon Chain Corp., Tonawanda, N. Y.
Chains and Chain Hoists.
- C-O-Two Fire Equipment Co., Newark, N. J.
Carbon Dioxide Fire Extinguishers, Hose Units, Manual-Automatic Systems, Smoke Detecting Systems.
- M. E. Cunningham Co., Pittsburgh, Pa.
Safety Marking Tools.

Davis Emergency Equipment Co., Inc., Newark, N. J.

Respiratory Protection, Combustible Gas Indicators, General Safety and First-Aid Equipment.

Dilley Manufacturing Co., Cleveland, O.

Magnetic Grip-Shields and Transparent Machine Guarding.

Diversey Corporation, Chicago, Ill.

Oil and Grease Absorbents, Cleaning Compounds, Hand Cleaners.

Dockson Corporation, Detroit, Mich.

Industrial Head and Eye Protection.

C. B. Dolge Co., Westport, Conn.

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Dunn Products, Chicago, Ill.

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Duo-Safety Ladder Corp., Oshkosh, Wis.

Safety and Fire Ladders, Ladder Shoes.

E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

Protective Creams, Neoprene Products, Fire Retardants, Safety Color Code.

E. & J. Manufacturing Co., Philadelphia, Pa.

Resuscitator Inhalator and Aspirator.

Elliott Service Co., New York, N. Y.

Safety and Work Improvement Displays, Supervisory Training, Suggestion Systems.

J. H. Emerson Co., Cambridge, Mass.

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Employers Mutual Liability Insurance Co., Wausau, Wis.

Workmen's Compensation, Public Liability, Automobile, Group Accident, Health and Other Casualty Insurance.

Finnell System, Inc., Elkhart, Ind.

Floor Care Machines and Floor Treatments.

General Detroit Corp., Detroit, Mich.

Fire Protection Equipment.

Gro-Cord Rubber Co., Lima, O.

Non-Slip Soles and Heels.

Hild Floor Machine Co., Chicago, Ill.

Floor Cleaning and Maintenance Equipment.

H-M Folding Stretcher Co., Medford, Ore.

First Aid Stretchers.

Holcomb Safety Garment Co., Chicago, Ill.

Protective Clothing Made of Asbestos, Leather and Fire-Proofed Duck.

Huntington Laboratories, Inc., Huntington, Ind.

Floor Maintenance Materials and Industrial Germicides.

Hynson, Westcott & Dunning, Inc., Baltimore, Md.

Mercurochrome, Thantix, Pharmaceutical Specialties and Sterile Ampule Products.

Industrial Gloves Co., Danville, Ill.

Protective Clothing, Gloves, Mittens, Handguards, Leggings, Flame-Proofed Suits.

Insto-Gas Corp., Detroit, Mich.

Torches and Furnaces.

International Shoe Co., St. Louis, Mo.

Safety Shoes.

Iron Age Div., H. Childs & Co., Inc., Pittsburgh, Pa.

Safety Shoes.

Jackson Products, Detroit, Mich.
Insulated Electrode Holders, Cable Connectors, Face Shields and Goggles.
Junkin Safety Appliance Co., Inc., Louisville, Ky.
Interlocking Barrier Gate and Swinging Die Closure Guards.
Justrite Manufacturing Co., Chicago, Ill.
Safety Cans, Safety Flashlights, Electric Lanterns.

Karel First Aid Supply Co., Chicago, Ill.
Industrial First-Aid Supplies and Equipment.
Keystone View Co., Meadville, Pa.
Industrial Visual Testing Equipment.
Walter Kidde & Co., Inc., Belleville, N. J.
Fire Extinguishing Equipment.
Kimball Safety Products Co., Cleveland, O.
Protective Clothing, Gloves and Goggles.

Walter G. Legge Co., Inc., New York, N. Y.
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Lehigh Safety Shoe Co., Inc., Allentown, Pa.
Safety Shoes and Rubber Boots.
Lien Chemical Co., Chicago, Ill.
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Lightfoot Schultz Co., New York, N. Y.
Powdered Hand Soaps, Skin Cleaners and Conditioners.
Lonn Manufacturing Co., Inc., Indianapolis, Ind.
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Macwhyte Company, Kenosha, Wis.
Wire Rope and Wire Rope Slings.
Marsh & McLennan, Inc., Chicago, Ill.
Insurance Brokers and Agents.
Martindale Electric Co., Cleveland, O.
Dust Respirators, Voltage Testers and Insulation Meters.
Thom McAn Safety Shoe Co., New York, N. Y.
Safety Shoes.
B. F. McDonald Co., Los Angeles, Calif.
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Medical Supply Co., Chicago, Ill.
First Aid Kits and Supplies.
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Flooring Materials, Treads and Standing Mats.
Metropolitan Life Insurance Co., New York, N. Y.
Life, Health, Accident, Annuities and Group Insurance.
Milburn Company, Detroit, Mich.
Protective Creams and Plastic Safety Clothing.
Mine Safety Appliances Co., Pittsburgh, Pa.
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Minnesota Mining & Mfg. Co., St. Paul, Minn.
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National Industrial Launderers and Cleaners Assoc., Youngstown, O.
Coverall and Wiping Cloth Laundry Service for Industrial Plants.
National Safety Council, Inc., Chicago, Ill.

National Society for the Prevention of Blindness, New York, N. Y.

Conservation and Utilization of Eyes in Industry.

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Oil and Grease Absorbent.

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Protectoseal Co., Chicago, Ill.

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Pulmosan Safety Equipment Corp., Brooklyn, N. Y.

Industrial Safety Equipment.

Pyrene Manufacturing Co., Newark, N. J.

Fire Extinguishers, Compounds and Systems.

Reece Wooden Sole Shoe Co., Columbus, Neb.

Wooden Sole Safety Boots, Shoes and Sandals.

Rose Manufacturing Co., Denver, Colo.

Industrial Safety Equipment.

Safety Clothing & Equipment Co., Cleveland, O.

Industrial Clothing, Gloves and Equipment.

Safety Engineering, New York, N. Y.

Publishers, Safety Engineering Magazine.

Safety First Shoe Co., Holliston, Mass.

Safety Shoes.

Safway Steel Products, Inc., Milwaukee, Wis.

Tubular Steel Scaffolding, Suspended Scaffolding, Grandstands, Bleachers.

W. H. Salisbury & Co., Chicago, Ill.

Linemen's Rubber Protective Equipment.

A. Schrader's Son, Brooklyn, N. Y.

Pneumatic Safety Control Devices.

Scott Aviation Corp., Lancaster, N. Y.

Self-Contained Breathing Apparatus.

Sellstrom Manufacturing Co., Chicago, Ill.

Face and Eye Protective Equipment.

Spencer Turbine Co., Hartford, Conn.

Industrial Vacuum Cleaners and Dust Collecting Equipment.

Standard Safety Equipment Co., Chicago, Ill.

Personal Safety Protective Equipment.

Steel Scaffolding Co., Inc., Brooklyn, N. Y.

Sectional Steel Scaffolding.

Stepan Chemical Co., Chicago, Ill.

Skin Cleansers.

Stonehouse Signs, Inc., Denver, Colo.

Accident Prevention Signs.

Sugar Beet Products Co., Saginaw, Mich.

Skin Cleansers and Cleaners.

Surty Manufacturing Co., Chicago, Ill.

Safety Appliances for Machines and Underfoot Hazards.

S. G. Taylor Chain Co., Hammond, Ind.

Iron and Steel Welded Chains.

G. H. Tennant Co., Minneapolis, Minn.

Floor Cleaning Machines, Floor Seal and Floor Wax.

The Toidey Company, Fort Wayne, Ind.

Safety Aids for Babies.

Trimont Manufacturing Co., Roxbury (Boston) Mass.

Forged Steel Safety Tools.

United States Safety Service Co., Kansas City, Mo.

Industrial Safety Equipment.

Wahlert Products Corp., Brooklyn, N. Y.

Industrial Safety and Fire Equipment.

Watchemoket Optical Co., Inc., Providence, R. I.

Industrial Eye Protection.

Waverly Petroleum Products Co., Philadelphia, Pa.

Oil Absorption Materials.

Weaver Manufacturing Co., Springfield, Ill.

"Safety Lane" Automatic Service Equipment.

Welsh Manufacturing Co., Providence, R. I.

Industrial Eye Protection Products.

West Disinfecting Co., Long Island City, N. Y.

Personal Protection Safeguards and Plant Sanitation Products.

P. H. Wheeler Manufacturing Co., Chicago, Ill.

Industrial Protective Apparel.

Wiesman Manufacturing Co., Dayton, O.

Power Press Guards, Guide Pin Cover.

The Wilkins Company, Cortland, N. Y.

Lens Cleaner and Dispenser Cabinets.

Williams Jewelry & Manufacturing Co., Chicago, Ill.

Safety Awards, Badges and Trophies.

Willson Products, Inc., Reading, Pa.

Personal Protective Equipment, Instruments.