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ENTERTAINMENT
INSPECTION TRIPS
POINTS OF INTEREST

1962 Winter General Meeting

Hotels Statler-Hilton and Governor Clinton
and Coliseum

New York, New York

JANUARY 28 THROUGH FEBRUARY 2



AMERICAN INSTITUTE
of
ELECTRICAL ENGINEERS



Welcome:

The warmest of welcomes is extended to members and guests of AIEE at this 1962 AIEE Winter General Meeting.

In addition to the usual full and worthy program of Technical Sessions, the Inspection Trips and Social Events described in this booklet and the activities especially planned for the ladies, there are two special features of unusual interest.

One is the opportunity to visit the new United Engineering Center which is now the headquarters for our Institute. Separate trips have been arranged for the men and the ladies so that each group may see the features of particular interest to them.

The other is the Electrical Engineering Exposition at the Coliseum where the newest products of the exhibitors may be seen and their applications discussed with engineering representatives of the companies.

It has been our privilege to serve you in the planning and preparation for this General Meeting. We urge you to participate fully in all of its activities and we know that your week will be a pleasurable and profitable one.

Yours in the service of AIEE,

R. W. GILLETTE, Chairman
1962 Winter General Meeting Committee

Smoker

Statler-Hilton

6:30 P.M.—Tuesday, January 30

One of the social highlights of the Winter General Meeting, the Smoker will be held in the Ballroom. Here will be found good food, good fellowship, and top entertainment.

Tickets are available at the Smoker Committee desk.

Dinner-Dance

Statler-Hilton

7:15 P.M.—Thursday, February 1

The Dinner-Dance will start in the Terrace Room, at 7:15 p.m.

The President's Reception will be held during the intermission following the dinner.

Ladies' Entertainment

The program of ladies' activities is shown in a separate folder available at Ladies' Headquarters, Washington Room, on Mezzanine of Statler-Hilton.

Exposition

Coliseum

Mon., Tues., Thurs., and Fri.—9:00 A.M. to 5:00 P.M.

Wednesday—Noon to 10:00 P.M.

An innovation this year, the Exposition is an activity which should be visited by all in attendance at the Winter General Meeting. See special transportation map available in Registration area.

Inspection Trips

A program of inspection trips of both technical and general interest has been arranged for those attending the Winter General Meeting. Since the number of persons who may be accommodated on each of these trips is limited, members who are interested are urged to make arrangements and obtain full details at the Inspection Trips desk immediately after registering. Tickets required for all trips.

TUESDAY, JANUARY 30

Radio City Music Hall, New York, N. Y. This ever popular trip has been scheduled again. Spectacular stage shows distinguished by unique lighting effects have made the Radio City Music Hall an outstanding attraction for visitors from all over the world. Members will see the backstage facilities as well as unusual features, such as revolving sectionalized stage, elevating orchestra pit, motorized curtains, and the multitude of electric and mechanical controls which are required for the special stage and lighting effects.

No women or children permitted.

Meet at stage entrance, 51st Street, east of Sixth Avenue, at 9:00 A.M.

International Business Machines Corporation, New York, N. Y. The International Business Machines Corporation will show their Data Processing System on which they will demonstrate a typical business application. Following the demonstration there will be a discussion along with a film-strip on this system.

In addition, there will be a specific demonstration on the RAMAC 305 with a large unique type of storage on magnetic disks.

Meet at 590 Madison Avenue (at 57th Street) at 10:00 A.M.

The James Forrestal Research Center, Princeton, N. J. The Princeton-Pennsylvania proton accelerator or synchrotron rated at 3,000,000 electron-volts presently under construction contains an 80-foot diameter magnet. It will have an energy equal to the Brookhaven cosmotron and one-half that of the bevatron at California. However, it is designed to produce at least fifty times the proton current available from existing accelerators.

The Model "C" stellarator, also near completion, will be America's largest facility for the study of hot ionized gases. It is sponsored by the U. S. Atomic Energy Commission.

Three motor-generator sets equipped with ninety-ton flywheels will deliver 200-megawatt

pulses of power, two seconds in duration for the use of the magnetic confining coils. Direct-current and radio-frequency heating pulses will be used, the latter at a level of 50 megawatts. The reaction chamber and coils weigh 280,000 pounds and rest on a 365,000-pound stainless steel base designed to withstand pulse forces of 3,000,000 pounds. It is hoped that the information obtained with the "C" stellarator and similar devices will eventually lead to the design of a control thermo-nuclear reactor which will permanently solve the earth's energy supply problem.

Adults only.

No citizens of Iron Curtain nations.

Bus leaves Statler-Hilton at 8:30 A.M., returns at 5:30 P.M.

General Motors, Linden, N. J. Here, at its Linden Plant, General Motors assembles Buick, Oldsmobile and Pontiac automobiles. On a two-shift operation, this plant turns out approximately 154,000 cars per year, employing an average of 4,500 men and women. Payroll, service and material purchase from local suppliers, amount to approximately thirty million dollars a year. An average of 1,200 freight cars of material are received each month.

One of six similar units of GM's Buick-Oldsmobile-Pontiac Assembly Division, this plant officially began production in April 1937. During World War II, it produced fighter airplanes for the U. S. Navy.

The five main structures—manufacturing, administration, personnel and cushion buildings and the power house—enclose almost 1,375,000 square feet of floor space. The plant occupies a site of more than 85 acres on U. S. Highway No. 1.

This is an assembly point—not a fabricating plant. Here, the thousands of parts, metal stampings, and sub-assemblies manufactured in other GM and independent plants are brought together—each at exactly the right time and place on the assembly line—to produce nearly 45 different automobile models. These parts converge on Linden, not to be stockpiled for future use but, in many cases, to be moved directly from freight car to assembly line.

Adults only.

Bus leaves Statler-Hilton at 12:30 P.M., returns at 4:00 P.M.

NBC Color Television Theatre and Studio, New York, N. Y. This is an opportunity to learn of the complexities of color operations. Staff engineers will tell of the over-all features and demonstrate the techniques and equipment unique to color. The

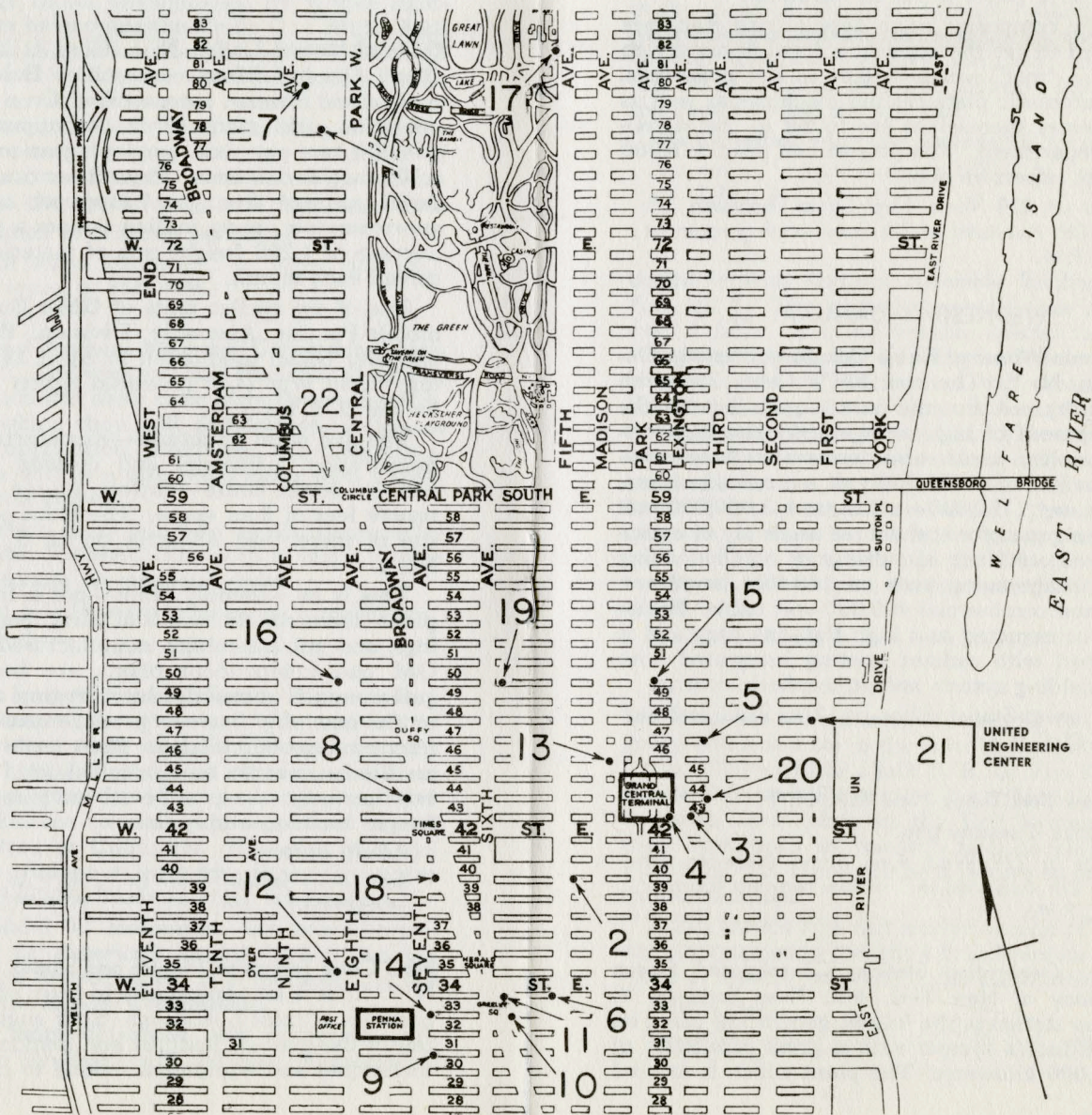
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RIVER

HUDSON



control equipment and auxiliary lighting will be accessible for examination. A color camera and viewer will be in operation so visitors can see how they would look if participating in a program.

Meet at Ziegfeld Theatre, 6th Avenue at 55th Street, at 2:00 P.M.

The New York Times, New York, N. Y. A visit to the midtown Manhattan home of what is probably the most widely read newspaper in the world, will include a view of various devices in the communications room that make it possible to have news transmitted from all over the world. Visitors will see how the news is edited as well as the mechanical operations that are required before the finished paper is put on the street.

In the composing room, type-setting machines are used to get the copy in a form necessary to create a "mat" which is sent to the pressroom. The automatic plate casting machines as well as the presses themselves are found in the stereo-type department. The presses can print 375,000 48-page papers an hour.

Meet at 229 West 43rd Street (between 7th and 8th Avenues) in 7th floor waiting room at 1:00 P.M.

WEDNESDAY, JANUARY 31

Anaconda Wire and Cable Company, Hastings-On-Hudson, N. Y. The new EHV Cable Research laboratory contains the finest equipment for the development of high-voltage and extra-high-voltage cables, joints, and terminals. Major apparatus includes 750,000-volt a-c cascade transformer set; 150,000-watt-second 3,000,000-volt impulse generator and unique assembly of equipment to conduct simultaneous cyclic-loading over-voltage aging tests on 150-foot lengths of full sized commercial 400,000-volt cable. Building is constructed as a high Faraday cage and is equipped with radiant heating integrated with the shielding system and atmospheric control.

Bus leaves Statler-Hilton at 12:30 P.M., returns at 5:00 P.M.

The New York Times, New York, N. Y.

Repeat of Tuesday trip.

Meet at 229 West 43rd Street (between 7th and 8th Avenues) in 7th floor waiting room at 1:00 P.M.

Astoria Generating Station, Consolidated Edison Company of New York, Inc., New York, N. Y. Astoria station is the largest generating plant on Con Edison's system with a gross capability of 1,185,000 kilowatts. The plant which is located

on the East River in Queens to the north of the Triboro Bridge will become the largest steam driven plant in the world in the spring of 1962 when a fifth unit will go into operation bringing its gross capability to 1,585,000 kilowatts.

Astoria is equipped to burn coal, oil, or natural gas. Of particular interest are the damper and nozzle arrangements to compensate for the station's relatively short stacks (because of nearby LaGuardia Airport), the 3-section DeLong prefabricated coal dock, and the most modern of air pollution control equipment.

The electric station is part of a 312-acre complex of utility facilities which includes a major distribution point for natural gas from the Gulf Coast used by Con Edison and other gas utilities in the metropolitan area, extensive standby and peak-load gas manufacturing facilities, the North Queens bulk-power electric switching station, a fuel oil tank farm, and Con Edison's 2,000,000-ton capacity coal storage yard.

No Cameras. Men and Teenage Boys only.

Bus leaves Statler-Hilton at 9:00 A.M., returns at 12:30 P.M.

United Nations General Assembly Building, New York, N. Y. The guided tour will take slightly over 1 hour, covering various special facilities and functions of this building and descriptions of special details. Includes a trip through the Visitors' Galley of the General Assembly Hall, if the Assembly is in session. (Present U.N. schedule lists committee sessions only, and admission tickets at no charge will be available for optional group attendance about 2 p.m.). Arrangements may be made for group luncheon (not included in tickets) in the Delegates Dining Room. The lunch is recommended but optional.

Bus leaves Statler-Hilton at 9:30 A.M.

Bell Telephone Laboratories, Murray Hill, N. J. The group will assemble in the Arnold Auditorium at 2 p.m. There will be a talk by K. G. Van Wymen, Public Relations Supervisor, describing the Laboratories, their place in the Bell System, and their operations in research and development. Following this, there will be a lecture on satellite communications.

Small groups will visit a cross section of different laboratories to present a broad picture of the scope of science covered by the Laboratories.

Adults only.

Bus leaves Statler-Hilton at 12:45 P.M., returns at 5:15 P.M.

United Engineering Center, New York, N. Y. The headquarters of the AIEE, sixteen other engineering organizations, the Engineering Societies Library, several meeting rooms and an exhibition hall (not yet equipped) are located in the new United Engineering Center on United Nations Plaza at 47th Street.

The electric service for the entire building is supplied from the utility network at 255/460 volts through a main switchboard of coordinated-fuse circuit breakers having a minimum interrupting capacity of 100,000 amperes, three phase. Distribution of electric energy through the building is accomplished by conduit and wire horizontally in basement areas to the principal distribution centers and by vertical buses in the office tower and to the motor control centers on the 19th and 20th floors. The bus risers consist of two 2,000 ampere low-impedance risers used to feed lighting and power on each floor through dry-type transformers and three-phase, 4-wire panelboards. Bus risers, transformers and panelboards are located in electric closets on each floor. Bus plugs are equipped with current-limiting fuses to provide selective short-circuit protection. A double underfloor duct system is provided in all office spaces to permit maximum flexibility in initial as well as future office arrangements. The power section of the underfloor duct is fed by the 120/208 volt panelboard in the electric closets.

In addition to the electric facilities, the tour will include the cooling, heating, and elevator controls and the two and a half floors occupied by the AIEE staff.

Bus leaves Statler-Hilton at 9:30 A.M. and 1:00 P.M.

A special separate tour has been arranged for the ladies.

THURSDAY, FEBRUARY 1

The Holophane Light and Vision Institute, New York, N. Y. This lighting "clinic" is a permanently established center for the demonstration of fundamental principles of seeing and lighting, both for individuals and groups. At formal lectures about 40 people can be accommodated comfortably. It is also in constant use as a laboratory where original research is carried on.

The demonstrations show how the eye sees, how lighting levels are determined, how colors for working spaces should be chosen, how light is controlled by optical constructions—reflectors, refractors. Visitors will be able to see the effect of shadow, diffusion, and contrast on various visual tasks, the effect of intensity on speed of seeing, and many other interesting and useful

effects that they will be able to apply to their own lighting problems.

Refreshments will be served at the conclusion of the visit.

Meet at 342 Madison Avenue (at 43rd Street) at 1:30 P.M.

Brookhaven National Laboratory, Upton, New York. The facilities of this location are operated by Associated Universities, Inc., under contract with the Atomic Energy Commission, and constitute the Northeastern Center for nuclear research and development in the fields of physics, chemistry, biology, medicine and engineering. Among the important facilities which our members will see are the research reactor, "hot" chemistry laboratory and particle accelerators. A complete tour has been arranged and competent guides, engineers and scientists will be on hand to explain fully the extensive facilities and exhibits which have been erected at this vast site.

No citizens of Iron Curtain nations.

Bus leaves Statler-Hilton at 8:00 A.M., returns at 5:30 P.M.

International Business Machines Corporation, New York, N. Y.

Repeat of Tuesday trip.

Meet at 590 Madison Avenue (at 57th Street) at 2:00 P.M.

The New York Stock Exchange. With its vast trading floor, is located in a building on the corner of Broad and Wall Streets just a short subway ride downtown from the Hotel Statler.

This Exchange is the nation's largest securities market. Six hundred and seventy-seven member brokerage firms daily buy and sell for thousands of people the stocks and bonds of America's leading corporations.

A guided tour is planned that will allow you to see first hand, and have clearly explained, how transactions are made and will include a visit to the gallery overlooking the bustling trading floor while in action. This tour is a definite "must" in New York City.

Bus leaves Statler-Hilton at 9:30 A.M.

Steamship Leonardo Da Vinci. The Leonardo Da Vinci, flagship of the Italian Line, made her first transatlantic voyage to New York in July 1960. She is 761 feet in length, 92 feet in breadth, displaces 33,500 tons and has an average speed of 23 knots. The ship uses radar, stabilizers and has a water distilling plant capable of producing 184,000 gallons daily. She accommodates 1300

passengers in three classes, has five tiled swimming pools and is air conditioned throughout. The inspection trip will include visits to the passenger spaces, swimming pools, salons, and public rooms. A small group will be shown through the engineering spaces of the ship.

Meet at ship at 2:00 P.M.

Astoria Generating Station, Consolidated Edison Company of New York, Inc., New York, N. Y.

Repeat of Wednesday trip.

Bus leaves Statler-Hilton at 9:00 A.M., returns at 12:30 P.M.

APPRECIATION

The Winter General Meeting offers not only an impressive program of technical sessions but also many other non-technical highlights which will help to make your visit a memorable one. Financial support of these activities by the companies listed below is gratefully acknowledged.

ANACONDA WIRE AND CABLE COMPANY

BURNDY CORPORATION

"ELECTRICAL WORLD"

FEDERAL PACIFIC ELECTRIC COMPANY

G AND W ELECTRIC SPECIALTY COMPANY

GENERAL CABLE CORPORATION

GENERAL ELECTRIC COMPANY

I-T-E CIRCUIT BREAKER COMPANY

L. V. JOCHUM, INCORPORATED

THE KERITE COMPANY

MOLONEY ELECTRIC COMPANY

THE OKONITE COMPANY—SUBSIDIARY OF
KENNECOTT COPPER CORPORATION

PENNSYLVANIA TRANSFORMER DIVISION—
MCGRAW-EDISON COMPANY

PHELPS DODGE COPPER PRODUCTS CORPORATION

RAYTHEON COMPANY—

SEMICONDUCTOR DIVISION

ROME CABLE DIVISION OF ALCOA

SOUTHERN STATES INCORPORATED

TRIANGLE CONDUIT AND CABLE COMPANY

WATERBURY COMPANY INCORPORATED—
CABLE SERVICE DIVISION

WESTINGHOUSE ELECTRIC CORPORATION