



# ATOMIC ENERGY COURSE FOR MANAGEMENT

A COOPERATIVE EUROPEAN • UNITED STATES PROGRAM

PARIS, FRANCE • JANUARY 13-26, 1957

ADDRESS INQUIRIES TO:

R. MAXIL BALLINGER, DIRECTOR

UNITED STATES: 145 E. 49TH ST., NEW YORK 17, N. Y.  
TELEPHONE: MURRAY HILL 8-9408

EUROPE: BOITE POSTALE 169, PARIS 16, FRANCE

## ANNOUNCEMENT

In response to numerous requests from Europe and elsewhere, we are sponsoring a series of training seminars, "Atomic Energy Courses for Management", to be held in Paris, January 14-26, 1957.

These courses are for non-technically trained executives in industry, business and government. Participants will get a detailed review of atomic energy fundamentals, learn the language of atomics, and get an understanding of the business potentials and industrial applications. Outstanding scientists, nuclear engineers, and business men of Europe and America make up the distinguished faculty listed on the enclosed announcement.

Although the Paris courses are primarily for European participants, a limited number of registrations will be accepted from the United States, Canada, South America, the Orient and elsewhere in the Free World.

In order to absorb the expenses of the courses, such as translation, printing of lecture materials and course notebooks, equipment and meeting room rentals, faculty expenses, etc., a tuition fee of \$325 is being charged for each participant. \$150 is payable as an advance registration fee and the remainder, \$175, is payable at registration in January. Although we regret any inconvenience it may cause, the various currency exchange regulations make it necessary that tuition fees be paid in United States dollars.

The sponsors and organizers of the courses are proud to be able to present these programs and believe that they will significantly further international cooperation in atomic energy. Requests have already been received for registrations in the courses. We therefore, suggest that you register immediately to be sure of places in the courses. Because final arrangements must be completed early in December, unless registrations are received on or before December 3, we cannot guarantee their acceptance.

## ANKUENDIGUNG

In Anbetracht zahlreicher Wuensche, die uns aus Europa und anderen Teilen der Welt zugegangen sind, werden wir eine Reihe von Seminaren unter dem Titel "Kursus ueber Atomenergie fuer Industriefuehrer" abhalten, die zwischen dem 14. und 26. Januar in Paris stattfinden.

Diese Kurse sind vornehmlich fuer solche Leiter von Industrie-, Geschaefts- und Regierungsbetrieben bestimmt, die keine besondere technische Vorbildung geniessen. Den Kursteilnehmern wird eine eingehende Uebersicht ueber die Fundamente der Atomwissenschaft dargeboten; sie werden die Sprache des Atomwesens kennenlernen und einen Eindruck der wirtschaftlichen und industriellen praktischen Anwendungsmoeglichkeiten der Atomenergie gewinnen. Wie aus der beiliegenden Ankuendigung ersichtlich ist, besteht die Fakultaeet aus hervorragenden Wissenschaftlern, Atomingenieuren und Wirtschaftsfuehrern aus Europa und Amerika.

Ogleich die Pariser Lehrgaenge hauptsaechlich fuer europaeische Teilnehmer bestimmt sind, wird auch eine beschraenkte Zahl von Anmeldungen aus den Vereinigten Staaten, Kanada, Sued-Amerika, dem Orient und aus der sonstigen freien Welt entgegengenommen werden.

## S P O N S O R S

AMF ATOMICS INC., SUBSIDIARY OF  
AMERICAN MACHINE & FOUNDRY COMPANY  
INTERNUCLEAR COMPANY

ATOMICS INTERNATIONAL, A DIVISION OF  
NORTH AMERICAN AVIATION, INC.  
THE BABCOCK & WILCOX COMPANY  
REPUBLIC STEEL CORPORATION

INTERNATIONAL GENERAL ELECTRIC COMPANY,  
A DIVISION OF GENERAL ELECTRIC COMPANY  
SYLVANIA ELECTRIC PRODUCTS, INC.



Ankündigung (Fortsetzung)

Um die Kosten des Lehrganges zu bestreiten (wie z.B. Uebersetzungen, Drucklegung des Lehrmaterials, Miete der Räumlichkeiten, Fakultätskosten usw.), wird eine Lehrgebuehr von \$325 von jedem Teilnehmer erhoben. Hiervon sind \$150 im Voraus zahlbar und der Rest ist bei der Registrierung zu entrichten. Obgleich wir die moeglicherweise damit verbundenen Umstaende bedauern, muessen wir jedoch auf die in den bestehenden Waehrungsbeschraenkungen begruendete Notwendigkeit hinweisen, die Gebuehren in U.S. Dollars zu bezahlen.

Die Veranstalter dieser Kurse betrachten es als einen Vorzug, ein Programm dieser Art anbieten zu koennen. Sie sind ueberzeugt, dass sie einen beachtlichen Beitrag zu der internationalen Zusammenarbeit im Atomwessen liefern werden. Da bereits Anmeldungen zu den Kursen eingegangen sind, raten wir, dass Sie Ihre Anmeldung unverzueglich einreichen, um Ihre Teilnahme bei den Kursen sicherzustellen. Da die Vorbereitungen endgueltig Anfang Dezember beendet sein muessen, koennen wir die Annahme von Anmeldungen nicht nach dem 3. Dezember garantieren.

A V I S

En réponse aux nombreuses demandes reçues d'Europe et d'ailleurs, nous sommes occupés à organiser une série de "Cours d'Energie Atomique pour la Direction Industrielle". Ces cours auront lieu à Paris du 14 au 26 janvier 1957.

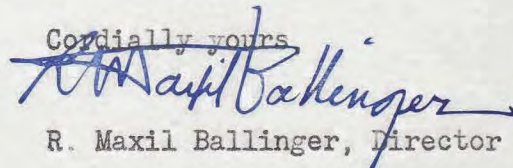
Ces cours sont spécialement conçus pour ceux qui prennent part à la Direction de l'Industrie, du Gouvernement et des affaires en général. Les participants à la Conférence recevront une formation qui couvrira les bases fondamentales de l'énergie atomique; ils apprendront le langage atomique et obtiendront une compréhension des potentiels de l'énergie atomique dans les affaires et de ses applications industrielles. Des hommes de science renommés, des ingénieurs spécialisés en énergie atomique et des hommes d'affaires d'Europe et d'Amérique constituent la liste ci-jointe des personnages distingués qui seront chargés de donner ces cours.

Quoique ces cours soient destinés en premier lieu aux participants européens, un nombre limité d'inscriptions sera accepté des Etats-Unis, du Canada, de l'Amérique du Sud, de l'Orient et d'autres parties du monde libre.

Afin de couvrir les dépenses des cours, telles que les frais de traduction et d'impression, de préparation des livres de cours, de location et d'équipement des locaux nécessaires, de rémunération à ceux qui donneront les cours, etc., le prix d'inscription a été fixé à 325 dollars américains par participant. De ce montant, 150 dollars sont payables d'avance lors de l'inscription et le solde de 175 dollars lors de la présentation du participant au cours en janvier. Nous regrettons que les divers règlements en vigueur concernant les échanges monétaires nous obligent de demander le paiement du prix d'inscription en dollars américains.

Les garants et organisateurs des cours sont fiers de pouvoir présenter ce programme qui, considèrent-ils, contribuera à promouvoir une coopération internationale plus étroite dans le domaine de l'énergie atomique. Des demandes d'inscription aux cours ont déjà été reçues. Nous vous suggérons de vous y inscrire immédiatement avant que le nombre limité des places ne soit rempli. Il est nécessaire que tous arrangements soient complétés dans les tout premiers jours de décembre, et de ce fait, nous ne pouvons garantir l'inscription de ceux dont la demande n'aurait pas été reçue pour le 3 décembre au plus tard.

Cordially yours



R. Maxil Ballinger, Director

RMB:md  
Enc.





*A Cooperative European—United States Program*



**ATOMIC ENERGY  
COURSE FOR MANAGEMENT**



**COURS D'ÉNERGIE ATOMIQUE  
POUR LA DIRECTION INDUSTRIELLE**



**KURSUS ÜBER  
ATOMENERGIE FÜR INDUSTRIEFÜHRER**

Maison de la Chimie, 28 Rue St. Dominique

*Paris, France — January 13-26, 1957*



*Sponsors:*

AMF ATOMICS, INC., SUBSIDIARY OF  
AMERICAN MACHINE & FOUNDRY COMPANY

ATOMICS INTERNATIONAL, A DIVISION OF  
NORTH AMERICAN AVIATION, INC.

THE BABCOCK & WILCOX COMPANY

INTERNATIONAL GENERAL ELECTRIC COMPANY,  
A DIVISION OF GENERAL ELECTRIC COMPANY

INTERNUCLEAR COMPANY

REPUBLIC STEEL CORPORATION

SYLVANIA ELECTRIC PRODUCTS, INC.







## About the Courses

The European Atomic Energy Courses for Management are designed to acquaint non-technically trained industrialists, business executives, and government officials with the basic fundamentals of atomic energy and to inform them of the industrial potentials and business opportunities of this new development. The Paris courses are a European and United States cooperative program and have been organized to help encourage greater international cooperation in world wide atomic developments.

The courses are an important medium for the exchange of information and experience between industrial leaders and scientists of Europe and the United States. The courses are taught by an outstanding international faculty of business men, engineers, and scientists. Each participant attending the six-day seminars is given a thorough, but non-technical understanding of basic nuclear science and an evaluation of the industrial applications of atomic energy. Each section of the Paris courses is the same and is made up of lectures, discussion groups, and demonstrations. Time has been set aside for informal sessions and small discussion groups so that each participant will have ample opportunity to explore subjects in which he has a special interest.

All lectures at the Paris courses will be simultaneously translated in *English, French, and German* and registration is open to individuals of all nations throughout the Free World.



## Registration and Tuition

Registrations for each of the four sections of the Paris courses will be limited to approximately sixty participants and registrations are being accepted in the order of their receipt. To defray the expenses of the courses, a tuition fee of \$325 is charged for each participant. This fee covers tuition, faculty expenses, the course notebook of lecturer and course materials, equipment and meeting room rentals, translation services, etc. Because a number of different countries are represented at the courses, currency exchange regulations require that tuition fees be paid in United States dollars. An advance registration fee of \$150 for each person registering for the courses should accompany the registration form. More than one person from a company or organization are encouraged to register.



## Early Registration

Considerable interest has already been expressed by industrial leaders and officials of both Europe and the United States in the Paris courses. In order that you or your representative be assured of a place in one of the four sections of the courses it is suggested that you send in your registration as early as possible. Because final arrangements must be completed early in December, unless registrations are received on or before December 3, we cannot guarantee their acceptance.



## Schedule

### FIRST DAY

- Afternoon* Registration  
*Evening* Reception and Dinner

### SECOND DAY

- Morning* Welcome and Introductions  
Fundamentals of Atomic Energy  
*Afternoon* Reactor Design Fundamentals  
Nuclear Ores and Processing  
*Evening* Group Discussions and Film Showing

### THIRD DAY

- Morning* Fuel Elements and Reactor  
Components  
Research and Training Reactors  
*Afternoon* Power Reactor Systems  
Hazards and Safety, Insurance and  
Problems of Reactor Operations  
Engineering and Construction  
Problems of a Nuclear Plant  
*Evening* Group Discussions

### FOURTH DAY

- Morning* Radioisotopes and Radiation Energy  
in Industry  
Use of Radiation for Food  
Preservation  
*Afternoon* Business Potentials in Atomic Energy  
Investment Opportunities in  
Atomic Energy  
*Evening* Cooperative Programs  
The OEEC Program, Euratom, and  
CERN Program

### FIFTH DAY

- Morning* Survey of International Developments  
The United States Bi-Lateral Program  
*Afternoon* Nuclear Power Program of  
Great Britain  
Atomic Energy Program of the  
United States  
The Nuclear Reactor Program of  
France  
*Evening* Atomic Energy Programs of Belgium,  
Western Germany, Italy, Israel,  
The Netherlands, Spain, and Sweden

### SIXTH DAY

- Morning* Company Programs in Atomic Energy  
Company Case Studies  
*Afternoon* The World Market for Nuclear Power  
Economics of Commercial Nuclear  
Power



## Speakers and Lecturers

SECTION I — JANUARY 13 - 18, 1957

SECTION II — JANUARY 14 - 19, 1957

SECTION III — JANUARY 20 - 25, 1957

SECTION IV — JANUARY 21 - 26, 1957

All four sections of the courses will be held at La Maison de la Chimie on Rue St. Dominique, Paris. The following government officials, nuclear scientists, businessmen, and engineers are the speakers and lecturers for the above four sections of the Paris courses. Each of the four sections has the same schedule of lectures, demonstrations, and group discussions on unclassified information.

### European

C. J. BAKKER

Directeur Général, Conseil Européen pour la Recherche Nucléaire, Geneva, Switzerland

ERNST D. BERGMANN

Chairman, Atomic Energy Commission, Israel

HARRY BRYNIELSSON

Managing Director, Aktiebolaget Atomenergri (Atomic Energy Company), Sweden

H. B. G. CASIMIR

Director, Philips Research Laboratories, N. V. Philips' Gloeilampenfabrieken, The Netherlands

SIR JOHN COCKCROFT

Director, Atomic Energy Research Establishment, United Kingdom Atomic Energy Authority, Great Britain

L. DE HEEM

Directeur-Général, Centre d'Etudes pour les Applications de l'Energie Nucléaire, Belgium

J. C. DUCKWORTH

Nuclear Power Engineer, Central Electricity Authority, Great Britain

WOLFGANG FINKELNBURG

Forschungslaboratorium, Siemens-Schuckertwerke, A. G., German Federal Republic

P. A. HERRENG

Directeur, Laboratoires, Société Alsacienne de Constructions Mécaniques, France

### American

LYLE BORST

Chairman, Physics Department, New York University

THE HONORABLE LEROY COLLINS

Governor of the State of Florida

W. KENNETH DAVIS

Director, Division of Reactor Development, U. S. Atomic Energy Commission

MARVIN FOX

Chairman, Reactor Department, Brookhaven National Laboratory

EVERETT L. HOLLIS

Contract and Atomic Energy Counsel, General Electric Company

JOHN W. LANDIS

Assistant Manager, Atomic Energy Division, The Babcock & Wilcox Company

JAMES A. LANE

Director, Reactor Experimental Engineering Division, Oak Ridge National Laboratory

ROBERT LEBARON

Consultant and former Chairman, Military Liaison Committee to the U. S. Atomic Energy Committee

KARL M. MAYER

Stanford Research Institute

*Speakers and Lecturers—(continued)*





# Speakers and Lecturers

## European

### EMMANUEL MAYOLLE

Vice President, Conseil National du Patronat Français, France

### JOSÉ M. OTERO

El Vicepresidente de la Junta de Energia Nuclear, Spain

### GUNNAR RANDERS

Director, Joint Dutch-Norwegian Establishment for Atomic Energy Research, Norway and Special Advisor to the United Nations Secretary General for Atomic Energy

### HENRY SELIGMAN

Division Head, Isotope Division, Atomic Energy Research Establishment, United Kingdom Atomic Energy Authority, Great Britain

### FRANZ JOSEF STRAUSS

Minister for Atomic Affairs, German Federal Republic

### PIERRE URI

Directeur, Division Economie, Haute Autorité, Communauté Européenne du Charbon et de l'Acier, Luxembourg

### GIORGIO VALERIO

Un Consigliere Delagato, Societa Edison, Italy

## Canadian

### J. L. GRAY

Vice President, Administration and Operations, Atomic Energy of Canada Limited, Canada

## American

### ROBERT MCKINNEY

Editor and Publisher, *The New Mexican*, Santa Fe, New Mexico. Formerly Chairman, Panel on the Impact of the Peaceful Uses of Atomic Energy to the Congressional Joint Committee

### WILLIAM E. PARKINS

Chief of Engineering, Atomics, International, A Division of North American Aviation, Inc.

### ROBERT P. PETERSEN

Director of Nuclear Research, Republic Steel Corporation

### A. V. PETERSON

Vice President, AMF Atomics Inc., Subsidiary of American Machine & Foundry Company

### PHILIP N. POWERS

President, Internuclear Company

### B. R. PRENTICE

Manager, Nuclear Systems Design Study, Atomic Power Equipment Department, General Electric Company

### STANLEY B. ROBOFF

Manager of Industrial Coordination, Atomic Energy Division, Sylvania Electric Products, Inc.

### CLARK C. VOGEL

Assistant Director for Plans, Division of International Affairs, U. S. Atomic Energy Commission

### J. CARLTON WARD, JR.

President, Vitro Corporation of America

## Organizers of the Courses

As a service to the industrial and business leaders of the Free World, the Paris courses are presented by Internuclear Company and the other sponsors. The courses were organized by Philip N. Powers, President of Internuclear Company, and R. Maxil Ballinger, Consultant in Atomic Energy, New York City.

## Information About Courses

Inquiries and registrations should be addressed to:  
R. Maxil Ballinger, *Director*  
Atomic Energy Course for Management  
*United States*: 145 E. 49th St., New York 17, N. Y.  
Telephone: MUrray Hill 8-9408  
*Europe*: Boite Postale 169, Paris 16, France



**REGISTRATION FORM**

**ATOMIC ENERGY COURSE FOR MANAGEMENT**

**Paris, France — Jan. 13-26, 1957**

Return to:

R. Maxil Ballinger, *Director*  
Atomic Energy Course for Management  
*United States:* 145 E. 49th Street, New York 17, N. Y.  
Phone: MUrray Hill 8-9408  
*Europe:* Boite Postale 169, Paris 16, France

Please register the following individuals:

*For Section I—January 13 to 18*

Name and Title \_\_\_\_\_ Citizenship \_\_\_\_\_  
Company or Affiliation \_\_\_\_\_  
Address \_\_\_\_\_

*For Section II—January 14 to 19*

Name and Title \_\_\_\_\_ Citizenship \_\_\_\_\_  
Company or Affiliation \_\_\_\_\_  
Address \_\_\_\_\_

*For Section III—January 20 to 25*

Name and Title \_\_\_\_\_ Citizenship \_\_\_\_\_  
Company or Affiliation \_\_\_\_\_  
Address \_\_\_\_\_

*For Section IV—January 21 to 26*

Name and Title \_\_\_\_\_ Citizenship \_\_\_\_\_  
Company or Affiliation \_\_\_\_\_  
Address \_\_\_\_\_

The above registration is authorized by

Name and Title \_\_\_\_\_  
Company or Affiliation \_\_\_\_\_  
Address \_\_\_\_\_

Enclosed is check or bank draft payable to the order of "Philip N. Powers—Atomic Energy Course" for \$\_\_\_\_\_, to cover the \$150 per person advance registration fee. I understand that the balance of the course tuition fee, \$175, (full tuition fee for the six-day course is \$325) will be paid at the time of registration at the course in January, 1957. Because a number of different countries are represented at the courses, currency exchange regulations require that tuition fees be paid in United States dollars. The advance registration fee cannot be refunded if notice of cancellation is received later than December 15, 1956.

**Early Registration**

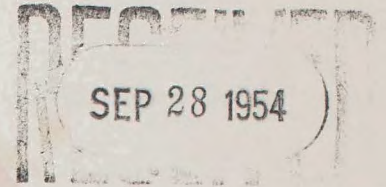
In order to be sure of a place in one of the four sections of the Paris courses, it is suggested that you send your registration in immediately. Each section will be limited to about 60 participants and registrations are being accepted on a first come-first served basis. Because final arrangements must be completed early in December, unless registrations are received on or before December 3, we cannot guarantee their acceptance.



REVISED

*Agenda...*

SPECIAL MEETING OF THE CONFERENCE BOARD



# *Atomic Energy in Industry*

3rd ANNUAL CONFERENCE

*"Peaceful Uses of Atomic Energy"*

## Round Table Conferences:

- Atomic Power Costs
- Amendments to Atomic Energy Act
- Utilizing Solar Energy
- Raw Materials Supply
- Public Safety in Reactor Operations
- Commercial Power Reactor Designs
- Radioisotopes in Medicine and Agriculture
- Economics of Locating Reactors
- Economic Impact and Market Potentials
- Radioisotope Clinics: I and II
- Company Planning and Organization
- Low-Power and Package Reactor Uses

INTERNATIONAL DEVELOPMENTS IN ATOMIC ENERGY: I, II, III

OCTOBER 13-14-15, 1954

HOTEL COMMODORE, NEW YORK



## About This Conference...

PROGRESS toward the development of commercially feasible atomic power has exceeded all expectations. New applications of atomic by-products are revolutionizing industrial measurement and control techniques and are effecting substantial cost savings and product improvements. The new Atomic Energy Bill, just passed by Congress, will attract many more companies to this burgeoning field and greatly stimulate activity in it.

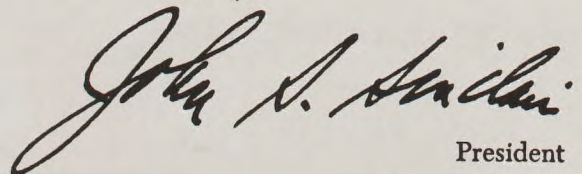
Three years ago, THE CONFERENCE BOARD held its first full-scale conference on Atomic Energy in Industry to explore "the current and potential applications of atomic energy in industry and to consider the broad economic, social and political implications of the development of atomic power." It brought together for the first time leaders of industry, science and government to discuss and consider the promises and problems of this great new energy source and of its attendant by-products. That conference and the one held last year have been acclaimed as "the outstanding medium for the exchange of ideas and information on the nonmilitary phases of atomic energy."

This year's conference, details of which are given in this agenda, will carry on in this tradition and will not only review the status and outlook in the United States and the impact on our economy, but will explore foreign progress and examine the prospects of world-wide cooperation for the development of peaceful uses of atomic energy. In keeping with the spirit of President Eisenhower's policy of international cooperation, leading foreign scientists and the heads of the atomic energy programs of several foreign countries will address this conference. Niels Bohr, eminent Danish physicist, will be one of these.

Also, in recognition of the rapid progress being made toward the commercial use of solar energy and the impact this may have on atomic energy and the older energy sources, a special feature of this conference will be a panel session on solar energy.

Interest in these annual conferences has always been high and registrations have exceeded the capacity of our accommodations. May I suggest, therefore, that you make reservations immediately for yourself, your business associates, and your guests so that you will not be disappointed should it be necessary for us to limit attendance.

Sincerely,

  
President



**1st DAY... WEDNESDAY, OCTOBER 13, 1954**

**9:00 a.m.**  
to  
**11:45 a.m.**

West Ballroom  
(3rd floor)

## ***The Current Outlook for Atomic Power Costs***

**Chairman:** LAWRENCE R. HAFSTAD, Director of Reactor Development, U.S. Atomic Energy Commission

**Speakers: A Realistic Evaluation of Nuclear Power Reactors**

W. KENNETH DAVIS, Assistant Director of Reactor Development, U.S. Atomic Energy Commission

**Competitive Nuclear Power—Now**

F. C. GRONEMEYER, Principal Development Engineer—Atomic Energy, Process Engineering and Development Division, The Fluor Corporation

**Cost Factors in Nuclear Power Plants**

JAMES A. LANE, Director, Reactor Experimental Engineering Division, Oak Ridge National Laboratory

**An Engineering Appraisal of Atomic Power Costs**

S. UNTERMYER, Atomic Power Study, Atomic Products Division, General Electric Company

**9:00 a.m.**  
to  
**11:45 a.m.**

Parlors B & C  
(3rd floor)

## ***Significance of the Patents and Licensing Amendments to the Atomic Energy Act***

**Chairman:** E. BLYTHE STASON, Dean, Law School, University of Michigan

**Speakers: Some Aspects of Research and Development Licenses**

WILLIAM MITCHELL, General Counsel, U. S. Atomic Energy Commission

**Revisions of the Patent Provisions—Good or Bad?**

CASPER W. OOMS, Attorney at Law, Chicago, Illinois (Former U.S. Commissioner of Patents) and Member of Patent Advisory Panel, U. S. Atomic Energy Commission

PAUL W. McQUILLEN, Chairman, Legal Committee, Dow Chemical—Detroit Edison and Associates Atomic Power Development Project, and member of the firm of Sullivan & Cromwell

(Additional speaker to be announced)

*Meinke*

***Luncheon  
Session***

**October 13**

**12:15 to 2:15 p.m.**

**GRAND BALLROOM**

### **INTERNATIONAL DEVELOPMENTS IN ATOMIC ENERGY: I**

**Introduction:** GORDON DEAN, Lehman Brothers, New York, Former Chairman, U.S. Atomic Energy Commission

**Speaker:** NIELS BOHR, Director, Institute for Theoretical Physics, Copenhagen, Denmark



**1st DAY... WEDNESDAY, OCTOBER 13, 1954**

**2:45 p.m.  
to  
5:30 p.m.**

West Ballroom  
(3rd floor)

## *Commercial Utilization of Solar Energy*

**Chairman:** HOWARD A. TANNER, Director of Research, Charles F. Kettering Foundation

**Speakers:** Sun Power from Reflectors

✓ CHARLES G. ABBOT, Smithsonian Institution

**The Prospects for Solar Energy Utilization**

HOYT C. HOTTEL, Professor of Fuel Engineering, Department of Chemical Engineering, Massachusetts Institute of Technology

G. L. PEARSON, Member, Technical Staff, Bell Telephone Laboratories, Inc.

MARIA TELKES, Project Director, Research Division, College of Engineering, New York University.

EUGENE RABINOWITCH, Professor of Chemistry, University of Illinois, and Editor, Bulletin of the Atomic Scientists

**2:45 p.m.  
to  
5:30 p.m.**

Parlors B & C  
(3rd floor)

## *The Raw Materials Supply Picture*

Although the energy-unit content of atomic fuels is staggering, great quantities of good grade ore are needed to produce very small quantities of it. This raises the question: Can the known resources of fissionable materials support a world-wide atomic power program? Also, what is the supply picture for the rarer elements needed for reactor construction? The following panel will review the domestic and foreign raw materials supply picture:

**Chairman:** CLYDE WILLIAMS, President and Director, Battelle Memorial Institute, and Member of Committee on Raw Materials, U. S. Atomic Energy Commission

**Speakers:** R. J. HENRY, Vice-President, Mining and Exploration, Eldorado Mining and Refining Limited, Canada

R. L. FAULKNER, In Charge of Foreign Procurement, Division of Raw Materials, U.S. Atomic Energy Commission

J. K. GUSTAFSON, Consulting Geologist, The M. A. Hanna Company, and Member of Advisory Committee on Raw Materials, U. S. Atomic Energy Commission

CARROLL L. WILSON, Vice-President and General Manager, Metals & Controls Corporation

## *Evening Session*

**October 13**

**7:45 to 9:30 p.m.**

**GRAND BALLROOM**

### **INTERNATIONAL DEVELOPMENTS IN ATOMIC ENERGY: II**

**Introduction:** (To be announced)

*Rabi Bill Libby*

**Speakers:** **Problems in Developing Atomic Energy in Brazil**

ADMIRAL ALVARO ALBERTO, President, Conselho Nacional de Pesquisas, Rio de Janeiro, Brazil

**Atomic Energy in France**

FRANCIS PERRIN, Le Haut Commissaire, Commissariat a l'Energie Atomique, France

**Developments of Atomic Energy in Italy**

GIORGIO VALERIO, Amministratore Delegato, Societa Elettrica Edison, Italy



## *Public Safety and Reactor Operations*

**9:30 a.m.**  
to  
**12:30 p.m.**

Grand Ballroom  
(3rd floor)

*Chairman:* FRANCIS K. McCUNE, General Manager, Atomic Products Division, General Electric Company

*Speakers:* A. E. GORMAN, Sanitary Engineer, Division of Engineering, U.S. Atomic Energy Commission

### **Canadian Experience with a Major Reactor Breakdown**

J. L. GRAY, Vice-President, Administration and Operations, Atomic Energy of Canada Limited

### **Reactor Design and Location versus Reliability and Public Safety**

C. ROGERS McCULLOUGH, Assistant Director, General Development Department, Monsanto Chemical Company, and Chairman, Advisory Committee on Reactor Safeguards, U.S. Atomic Energy Commission

### **The Relationship of Insurance to Safety of Reactor Operations**

REUEL C. STRATTON, Assistant Superintendent, Engineering and Loss Control Division, The Travelers Insurance Company, and Member of Advisory Committee on Reactor Safeguards, U. S. Atomic Energy Commission

**9:30 a.m.**  
to  
**12:30 p.m.**

West Ballroom  
(3rd floor)

## *Reactor Designs for Commercial Power*

The industrial groups that are studying reactor designs for commercial power do not agree on any one reactor type as the best for producing electricity from the atom. In fact, each group is developing a different type. Their preferences seem to be as follows: Dow Chemical-Detroit Edison, the fast breeder; Commonwealth Edison, a boiling version of the pressurized water reactor; North American Aviation, the sodium graphite type; Westinghouse, the pressurized water reactor; General Electric, the Hanford dual purpose type; and Pioneer Service-Foster Wheeler, the homogeneous reactor. At this session the reasons for these preferences will be discussed and the panel will point out the advantages and disadvantages of each.

*Chairman:* WALTER G. WHITMAN, Head, Department of Chemical Engineering, Massachusetts Institute of Technology, and Member of the General Advisory Committee to the U.S. Atomic Energy Commission

*Speakers:* C. R. BARTHELEMY, Chief Mechanical Engineer, Pioneer Service and Engineering Company

ALTON P. DONNELL, Project Manager, The Dow Chemical-Detroit Edison and Associates Atomic Power Development Project

CHAUNCEY STARR, Manager, Nuclear Engineering & Manufacturing, North American Aviation, Inc.

CLARKE WILLIAMS, Chairman, Nuclear Engineering Department, Brookhaven National Laboratory



**9:30 a.m.**  
to  
**12:30 p.m.**

## *Use of Radioisotopes in Medicine and Agriculture*

South Room  
(Lobby floor)

**Chairman:** JOHN C. BUGHER, Director, Division of Biology and Medicine, U.S. Atomic Energy Commission

**Speakers: The Uses of Radioisotopes in Medical Research and Treatment**

ROBERT J. HASTERLIK, Associate Director, Argonne Cancer Research Hospital, University of Chicago

**Radioisotopes in Pharmaceutical Research and Development**

JACQUES KELLY, Director, Division of Analytical and Physical Chemistry, The Squibb Institute for Medical Research

**Preservation of Food through Radiation**

BRUCE MORGAN, Chief, Radiation & Sterilization Project, Quartermaster Corps, Food & Container Institute for the Armed Forces

**Contribution of Atomic Energy to Agriculture**

RALPH SINGLETON, Senior Geneticist, Brookhaven National Laboratory

**2:30 p.m.**  
to  
**5:30 p.m.**

## *Economic Factors in Locating Reactors*

West Ballroom  
(3rd floor)

Even at present costs, it is believed that there are places where atomic reactors would be an economically sound source of electricity. As production costs are lowered, economic considerations will control the placement of power reactors. This panel will discuss these economic considerations and show how they may influence the placement of reactors in various parts of this country and throughout the world.

**Chairman:** J. W. McAFEE, President, Union Electric Company of Missouri

**Speakers:** KARL COHEN, Vice-President, Walter Kidde Nuclear Laboratories, Inc.

TITUS G. LeCLAIR, Assistant to Vice-President, Commonwealth Edison Company

FRANCIS T. MILES, Senior Chemist, Nuclear Engineering Department, Brookhaven National Laboratory

B. R. PRENTICE, Manager, Atomic Power Study, Atomic Products Division, General Electric Company

**2:30 p.m.**  
to  
**5:30 p.m.**

## *Market Potentials in Atomic Energy and Related Industries*

East Ballroom  
(3rd floor)

**Chairman:** GEN. LESLIE R. GROVES, Vice-President, Remington-Rand Inc.

**Speakers:** ROBERT L. BUTENHOFF, Chief, Radiation Instruments Branch, Division of Biology and Medicine, U.S. Atomic Energy Commission

**Investment Potentials in Atomic Energy**

NEWTON I. STEERS, JR., President and Director, Atomic Development Securities Company

**The Nature of the Product Market in the Nuclear Power Field**

FREDERICK H. WARREN, Assistant to the Executive Vice-President — Atomic Energy, General Dynamics Corporation

**The Probable Impact of Atomic Energy on the Petroleum Industry**

ROBERT E. WILSON, Chairman of the Board, Standard Oil Company (Indiana)

**Panel Member:** SAM H. SCHURR, Resources for the Future, Inc.



**2nd DAY... THURSDAY, OCTOBER 14, 1954**

## *Radioisotope Clinic I: Uses in Process Industries*

**2:30 p.m.  
to**

**5:30 p.m.**

Grand Ballroom  
(3rd floor)

Radioisotopes are proving invaluable to industry for controlling processes, for measuring quickly and accurately, for radiography, and for research. Lower costs and better products are the result. This outstanding panel will answer questions from the audience. This will afford you with an opportunity to find out how radioisotopes can be used profitably in your company and to get the help of experts in solving problems you may have encountered in their use. This session will deal with the use of radioisotopes in process industries.

*Chairman:* PAUL C. AEBERSOLD, Director, Isotopes Division, U.S. Atomic Energy Commission

*Panel* W. P. CONNER, Manager, Physics Division, Hercules Experiment Station, Hercules Powder Company, and Member of Advisory Committee on Reactor Safeguards, U. S. Atomic Energy Commission

J. B. CRONYN, Director of Production, John Labatt Limited, Canada

P. E. GNAEDINGER, Director of Quality Control, Dominion Rubber Company Limited, Canada

FRANK L. JACKSON, Research Division, The Procter & Gamble Company

ROBERT C. PLUMB, Physical Chemistry Division, Aluminum Company of America

C. A. SANKEY, Research Director, The Ontario Paper Co., Limited, Canada

HAROLD SUTER, Director, Application Research, Wyandotte Chemicals Corporation

C. W. TITTLE, Gulf Research & Development Company

## *Dinner Session*

**Thursday, October 14, 1954**

Beginning with Reception in the  
GRAND BALLROOM

**at 6:00 p.m.**

(Informal)

*Chairman:* LANGBOURNE M. WILLIAMS, Vice-Chairman,  
The Conference Board; President, Freeport  
Sulphur Company

(Speaker to be announced)



**9:00 a.m.**  
to  
**12 Noon**

Grand Ballroom  
(3rd floor)

## *Company Planning and Organization*

(Case Studies)

What are the problems encountered when a company enters the atomic energy field? At this session, devoted to company case studies, the panel will review the problems of getting nuclear know-how and building a company organization for atomic activities. The following companies, representative of several industry groups interested in various phases of atomic energy developments, will outline their company's long-range objectives in this field and what they are doing to achieve those goals.

*Chairman:* JOHN B. MERRILL, Vice-President, Sylvania Electric Products, Inc.

*Speakers:* MARTIN FRISCH, Vice-President, Equipment Division, Foster Wheeler Corporation

ARTHUR V. PETERSON, Assistant for Atomic Energy for Vice-President of Engineering,  
American Machine & Foundry Company

HAROLD A. SMITH, The Hydro-Electric Power Commission of Ontario, Canada

J. CARLTON WARD, Jr., President, Vitro Manufacturing Company

*Panel Member:* JOHN CARTINHOOR, Head, Nuclear Energy Organization, Foster Wheeler Corporation

**9:00 a.m.**  
to  
**12 Noon**

West Ballroom  
(3rd floor)

## *Uses for Low-Power and Package Reactors*

The low-power and package reactor field is of special interest to a large number of companies manufacturing power equipment and related products. The uses of low-power research reactors in industry and by universities in their training and research programs seem to offer a considerable market potential for firms interested in this phase of atomic energy work. This market potential is broadened by the possible military uses of package reactors in mobile power units. And an even larger market may exist in foreign areas. This session will discuss some of the uses for low-power and package reactors.

*Chairman:* LELAND J. HAWORTH, Director, Brookhaven National Laboratory

*Speakers:* CLIFFORD K. BECK, Head, Physics Department, North Carolina State College of  
Agriculture and Engineering of the University of North Carolina

CHRIS J. BROUS, Assistant Manager, Nuclear Engineering Section, American Machine  
& Foundry Company

L. A. HYLAND, Vice-President—Engineering, Bendix Aviation Corporation

JAMES B. LAMPERT, Colonel, Corps of Engineers, U.S. Army; Chief, Army Reactors  
Branch, Division of Reactor Development, U.S. Atomic Energy Commission



9:00 a.m.  
to  
12 Noon

East Ballroom  
(3rd floor)

## *Radioisotope Clinic II: Uses in Nonprocess Industries*

Radioisotopes are proving invaluable to industry for controlling processes, for measuring quickly and accurately, for radiography, and for research. Lower costs and better products are the result. This panel of outstanding experts will answer questions from the audience. This will afford you with an opportunity to find out how radioisotopes can be used profitably in your company and to get the help of experts in solving problems you may have encountered in their use. This session will deal with the use of radioisotopes in nonprocess industries.

*Chairman:* R. F. ERRINGTON, Manager, Commercial Products Division, Atomic Energy of Canada Limited

*Panel Members:* WILLIAM T. BERTIER, Chief Engineer, Revere Copper and Brass Incorporated

G. D. CALKINS, Chief, Radioisotope and Radiation Research, Battelle Memorial Institute

A. F. COTA, Supervisor of Non-Destructive Testing, A. O. Smith Corporation

DAVIS R. DEWEY, II, Vice-President, High Voltage Engineering Corporation

C. H. FELLOWS, Director, Engineering Laboratory and Research Department, The Detroit Edison Company

J. A. KEARNEY, Chief Metallurgist, Spaulding Works, Crucible Steel Company of America

R. C. NEWTON, Research and Development Center, Armstrong Cork Company

C. R. LEWIS, Staff Research Engineer, Chrysler Corporation

C. W. WALLHAUSEN, Vice-President, United States Radium Corporation

## *Luncheon and Closing Session*

12:30 a.m. to 2:30 p.m.

GRAND BALLROOM

## **INTERNATIONAL DEVELOPMENTS IN ATOMIC ENERGY: III**

*Chairman:* JOHN S. SINCLAIR, President, The Conference Board

*Speakers:* WILLIAM BENNETT, President, Atomic Energy of Canada Limited

PIERRE RYCKMANS, President, Centre d'Etudes pour les Applications de l'Energie Nucleaire, Brussels, Belgium



# About The Conference Board...

**The National Industrial Conference Board**, founded in 1916, is an independent and nonprofit institution for business and industrial fact finding through scientific research. In terms of everyday usefulness, the Board is a source of facts and figures bearing on all aspects of economic life and business operation.

By charter, the organization is specifically prohibited from attempting to influence legislation of any kind.

The Board conducts unbiased research in the fields of economics, business management and human relations. Facts, experiences and opinions relating to these fields are collected and appraised. The results of these inquiries are then issued as published reports, press releases, conferences and correspondence.

## CONFERENCES

During each year, The Conference Board brings together business, labor and industrial executives in periodic conferences in order to provide them the opportunity to participate in discussions led by speakers of national and international prominence.

In smaller, technical sessions, experts appraise timely subjects as a prelude to a period of questions and general discussion.

## RESEARCH

The Board is continuously examining various aspects of the nation's economy, business practices, human relations, and other practical problems which must be met intelligently by having the facts at hand.

The Board's research program is carried on by its four major divisions:

DIVISION OF BUSINESS ECONOMICS

DIVISION OF PERSONNEL ADMINISTRATION

DIVISION OF BUSINESS PRACTICES

STATISTICAL DIVISION

Studies, surveys and analyses are issued in the following publications and series:

STUDIES IN PERSONNEL POLICY

STUDIES IN BUSINESS ECONOMICS

STUDIES IN BUSINESS POLICY

THE MANAGEMENT RECORD

STUDIES IN LABOR STATISTICS

THE BUSINESS RECORD

Other surveys and statistical series that the Board maintains include: Consumer Price Index in major cities, Clerical Salaries and Occupational Wage Data in a cross section of U.S. industrial cities, and Executive Compensation Data.

## EDUCATION

Studies prepared by The Conference Board often serve as textbook material and collateral reading in leading colleges and universities. The Board, as a public service to educators, has made its weekly "Road Maps of Industry" charts available without charge upon request to teachers at the secondary school level, staff members of teachers colleges and administrators at these levels.

## WHO SUPPORTS THE BOARD

The work of The Conference Board is made possible through the support of more than 3,000 Subscribing Associates. These include:

BUSINESS ORGANIZATIONS

LABOR UNIONS

TRADE ASSOCIATIONS

LIBRARIES

GOVERNMENT BUREAUS

INDIVIDUALS

COLLEGES AND UNIVERSITIES



To: Director, Conference Division  
 National Industrial Conference Board  
 247 Park Avenue, New York 17, N. Y.

**RESERVATION FORM**

Please make the following reservations for the Atomic Energy Conference:

**Wednesday, October 13**

- A. 9:00 A.M. to 11:45 A.M. . . . The Current Outlook for Atomic Power Costs
- B. 9:00 A.M. to 11:45 A.M. . . . Significance of the Patents and Licensing Amendments to the Atomic Energy Act
- C. 12:15 P.M. to 2:15 P.M. . . . Luncheon: International Developments in Atomic Energy: I
- D. 2:45 P.M. to 5:30 P.M. . . . Commercial Utilization of Solar Energy
- E. 2:45 P.M. to 5:30 P.M. . . . The Raw Materials Supply Picture
- \*\*Ex. 7:45 P.M. to 9:30 P.M. . . . Evening Session: International Developments in Atomic Energy: II

**Thursday, October 14**

- F. 9:30 A.M. to 12:30 P.M. . . . Public Safety and Reactor Operations
- G. 9:30 A.M. to 12:30 P.M. . . . Reactor Designs for Commercial Power
- H. 9:30 A.M. to 12:30 P.M. . . . Use of Radioisotopes in Medicine and Agriculture
- I. 2:30 P.M. to 5:30 P.M. . . . Economic Factors in Locating Reactors
- J. 2:30 P.M. to 5:30 P.M. . . . Market Potentials in Atomic Energy and Related Industries
- K. 2:30 P.M. to 5:30 P.M. . . . Radioisotope Clinic I: Uses in Process Industries
- L. 6:00 P.M. to 9:30 P.M. . . . Dinner Meeting

**Friday, October 15**

- M. 9:00 A.M. to 12:00 Noon . . . Company Planning and Organization (Case Studies)
- N. 9:00 A.M. to 12:00 Noon . . . Uses for Low-Power and Package Reactors
- O. 9:00 A.M. to 12:00 Noon . . . Radioisotope Clinic II: Uses in Nonprocess Industries
- P. 12:30 P.M. to 2:30 P.M. . . . Luncheon and Closing Session: International Developments in Atomic Energy: III

\*\*An earlier Reservation Form, included in our Previews mailing of August 20, did not carry the added session on Wednesday evening October 13, in the Grand Ballroom. As a result, the Full Conference price has been increased to \$58.

Name and Company	Full Conference Check Specific Sessions	Please Check for Attendance																
		A	B	C	D	E	Ex.	F	G	H	I	J	K	L	M	N	O	P

Note: Charges for round-table sessions will be \$4 per person, and for Luncheon and Dinner \$6 and \$12 respectively. Special Full Conference Price will be \$58. (This includes two luncheons, dinner and any six round-table sessions, as well as complete transcript of the meeting.)

Please check for Round-table, Luncheon and Dinner charges:

Bill me for myself and guests

Name and Title.....  
 (Please print)

Bill Company

Company.....

Address.....

**Important**—Charges for all of the sessions outlined will be billed after the conference is over. We shall issue tickets for all of the sessions. Please fill in names carefully and **do not send any money.**

Luncheon and Dinner place assignments will be made in the order of receipt of acceptance, at specified tables. For group reservations of two or more it will be impossible to arrange seating at the same table unless the names of executives are submitted at the time the reservation is made. Tables are set for ten persons each.

**It will be necessary to bill in full for all luncheon and dinner reservations unless canceled by 5:00 P.M. on Monday, October 11th. Phone: Conference Division: Plaza 9-0900.**

**ORDER FORM FOR TRANSCRIPT OF CONFERENCE**

A complete transcript of all sessions of the three-day conference will be available at \$15.00 each. If you are attending the full conference you will automatically receive a copy of the transcript at no additional cost. If you are not attending the full conference or wish additional copies of the transcript, please fill out the following:

Name..... Title.....

Company.....

Street.....

City..... State.....

Please send me..... copies of the transcript and bill my company.....; bill me personally.....



# OFFICERS OF THE NATIONAL INDUSTRIAL CONFERENCE BOARD

## *Chairman*

**COLA G. PARKER**  
Chairman, Kimberly-Clark Corporation  
Neenah, Wisconsin

## *President*

**JOHN S. SINCLAIR**  
247 Park Avenue  
New York, N. Y.

## *Chancellor*

**VIRGIL JORDAN**  
247 Park Avenue  
New York, N. Y.

## *Vice-Chairmen*

**R. G. FOLLIS**  
Chairman, Standard Oil Company of California  
San Francisco, California

**BREHON SOMERVELL**  
Chairman and President,  
Koppers Company, Inc.  
Pittsburgh, Pa.

**LANGBOURNE M. WILLIAMS**  
President, Freeport Sulphur Company  
New York, N. Y.

**JAMES D. WISE**  
President,  
Bigelow-Sanford Carpet Company, Inc.  
New York, N. Y.

## *Vice-President*

**CLYDE L. ROGERS**  
247 Park Avenue  
New York, N. Y.

## *Treasurer*

**JAMES L. MADDEN**  
Second Vice-President—Coordination  
Metropolitan Life Insurance Company  
New York, N. Y.

## *Secretary*

**HERBERT S. BRIGGS**  
247 Park Avenue  
New York, N. Y.

## TRUSTEES OF THE CONFERENCE BOARD

### *Chairman*

**LANGBOURNE M. WILLIAMS**  
President, Freeport Sulphur Company

**NEAL DOW BECKER**  
Chairman, Intertype Corporation

**WM. W. BODINE**  
Chairman, The Penn Mutual Life Insurance Company

**WILLIS H. BOOTH**  
Director, Commercial Solvents Corporation

**C. L. CAMPBELL**  
Chairman, Finance Committee, The Connecticut Light & Power Co.

**LOUIS S. CATES**  
Chairman, Phelps Dodge Corporation

**STEWART P. COLEMAN**  
Director, Standard Oil Company (New Jersey)

**S. BAYARD COLGATE**  
Honorary Chairman, Colgate-Palmolive Company

**J. F. DRAKE**  
Chairman, Executive Committee, Gulf Oil Corporation

**R. G. FOLLIS**  
Chairman, Standard Oil Company of California

**ROLLAND J. HAMILTON**  
Director, American Radiator & Standard Sanitary Corporation

**H. J. HEINZ, II**  
President, H. J. Heinz Company

**AUSTIN S. IGLEHEART**  
Chairman, General Foods Corporation

**VIRGIL JORDAN**  
Chancellor, National Industrial Conference Board, Inc.

**FRED I. KENT**  
Chairman, Council of New York University

**NEIL McELROY**  
President, The Procter & Gamble Company

**JAMES L. MADDEN**

Second Vice-President—Coordination, Metropolitan Life Insurance Company

**EUGENE MEYER**  
Chairman, The Washington Post Company

**W. C. MULLENDORE**  
Chairman, Southern California Edison Company

**JOHN M. OLIN**  
President, Olin Industries, Inc.

**COLA G. PARKER**  
Chairman, Kimberly-Clark Corporation

**EDGAR MONSANTO QUEENY**  
Chairman, Monsanto Chemical Company

**A. W. ROBERTSON**  
Chairman, Finance Committee, Westinghouse Electric Corporation

**MURRAY SHIELDS**  
Vice-President and Economist, Bank of the Manhattan Company

**JOHN S. SINCLAIR**  
President, National Industrial Conference Board, Inc.

**BREHON SOMERVELL**  
Chairman, and President, Koppers Company, Inc.

**CHARLES J. STILWELL**  
President, The Warner & Swasey Company

**RALPH H. TAPSCOTT**  
Trustee, Consolidated Edison Company of New York, Inc.

**CHARLES M. WHITE**  
President, Republic Steel Corporation

**I. W. WILSON**  
President, Aluminum Company of America

**NORMAN W. WILSON**  
Chairman, Hammermill Paper Company

**JAMES D. WISE**  
President, Bigelow-Sanford Carpet Company, Inc.