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(Bulletin TT-2)

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eral agency and the school to determine the extent of any further cost sharing. The current edition of the document includes changes that are "intended to clarify and refine the methods used in identifying, classifying, and distributing indirect costs, and to provide more definite standards concerning the allowability of costs, both direct and indirect, applicable to Government research grants and contracts".

However, the circular, while it is generally adhered to by many federal agencies, has no force of law. Consequently, the Appropriations Committees of both the Senate and House of Representatives have, for a number of years, placed in the appropriations acts of certain agencies, including the National Science Foundation and the Department of Defense, a statutory limitation (currently around 20%) on the amounts of reimbursable indirect costs as a ratio to direct costs. It has been estimated that in 1963 alone, the nation's colleges and universities suffered losses of about \$40 million through their inability to collect the full amount of indirect costs on grants.

An inquiry into indirect costs under federal research grants was held last year by the House Subcommittee on Science, Research, and Development, whose chairman is Emilio Q. Daddario of Connecticut. Following testimony from various representatives of federal agencies, and schools and foundations, the Subcommittee concluded that the imposition of a flat percentage limitation on the reimbursement of indirect costs was inequitable, and in many instances, diminishes other sources of university funds. It therefore recommended that Congress omit such limitations in future appropriations acts. It also urged that the Bureau of the Budget's *Circular A-21* be placed in operation by all federal agencies as soon as feasible for a trial period. "If such a trial period experience," the Subcommittee noted, "with administrative handling of a uniform overhead reimbursement policy proves unworkable or demonstrates statutory need, the Congress [should] enact legislation putting appropriate indirect costs principles into effect for all government agencies". The Subcommittee also recommended that the adminis-

tration develop a single set of uniform administrative and fiscal procedures for all agencies awarding research grants, and that the Bureau of the Budget prepare "for preliminary analysis and review by interested parties, criteria for cost sharing based on the mutual interests of institutional grantees and Federal grantor agencies".

Reactor school closes

After fifteen years of continuous operation, the Oak Ridge School of Reactor Technology is being discontinued by the US Atomic Energy Commission. The school, which was organized early in 1950 at the Oak Ridge National Laboratory by a group including E. P. Wigner and A. M. Weinberg, has over the years provided instruction in nuclear technology to more than a thousand US and foreign students. The AEC gave as its reasons for closing ORSORT (1) the increased capabilities of universities in the US and abroad to provide MS and PhD programs in nuclear engineering, (2) the establishment of a number of ORSORT-type schools by atomic energy agencies in several countries, and (3) increasing difficulties experienced by foreign students in obtaining financial support for training at ORSORT.

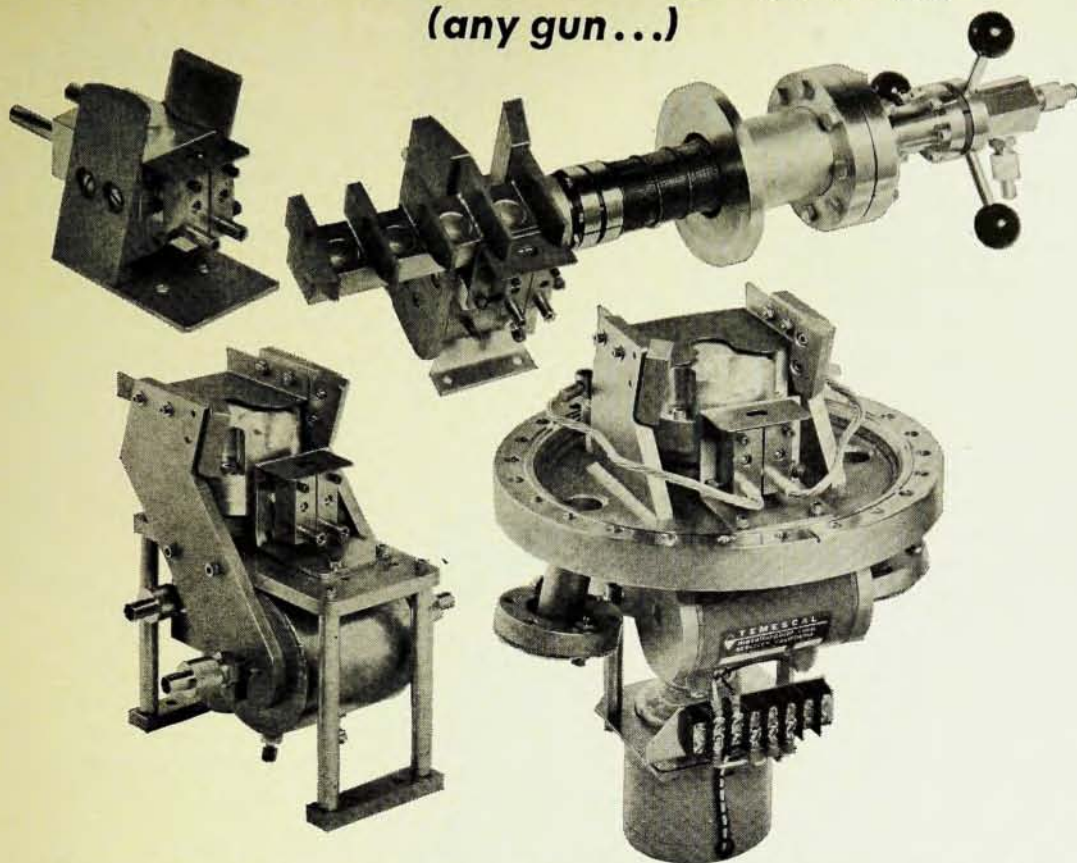
Summer schools

Boston College will again conduct its annual two-week intensive course in modern industrial spectrography from July 19 to July 30. The course is designed particularly for physicists and chemists from industry who are desirous of learning the techniques of emission spectroscopy for use in analytical work. Further details concerning the course can be obtained from Rev. James J. Devlin, S. J., Director, Department of Physics, Boston College, Chestnut Hill, Mass., 02167.

The Materials Research Laboratory of Pennsylvania State University is sponsoring a two-week course (June 14-26) on modern methods for preparation and characterization of materials. Emphasis will be on high-band-gap materials such as oxides, sulfides, and

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halides. Topics to be covered include crystal chemistry, phase equilibria, theory and technique of crystal growing, materials characterization by x-ray, electron microscope, microprobe, and spectroscopic techniques, modern methods of elemental analysis, characterization of point line, and surface defects. The course will be taught by the faculty of the Materials Research Laboratory and by visiting lecturers. For more information, contact the Conference Center, Pennsylvania State University, University Park, Pa.

A summer workshop in thermodynamics, involving lectures, discussions, and problem-solving sessions will be held July 19-30 at the Massachusetts Institute of Technology. The course will concentrate on the fundamental concepts of work, the laws of thermodynamics, temperature, heat, energy, entropy, availability, closed and open systems, and equilibrium. These will be applied first to nonfluctuating systems and then generalized to fluctuating systems through the description of a system in terms of an ensemble. The general thermodynamics of an ensemble will be derived and applied to the determination of equations of state and fluctuation theory for simple models.

Directors of the summer workshop will be Professor Joseph H. Keenan and Dr. George N. Hatsopoulos. Additional information can be obtained from Summer Sessions Office, MIT, Building E19-356, Cambridge, Mass. 02139.

An advanced study institute on radiation trapped in the earth's magnetic field will take place from August 16 to September 3 in Bergen, Norway. Experimental results for electrons and protons in both the inner and outer belt will be presented in terms of flux, pitch angle, and energy. The various sources and loss mechanisms of these radiations will be discussed. Discussion of the artificial trapped radiation from the US and Soviet high-altitude nuclear tests will also be presented. Theoretical models and observational data for synchrotron radiation will also be included. The institute will conclude