

Cyclotron Is Put Into Action

The cyclotron at Texas A&M was "turned on" for the first time this week, culminating more than five years of planning and construction.

With half a million watts of energy being poured into the 300-ton magnet and more than a score of power units, a glowing purple "platter" of nuclear particles ap-

peared in the center of the machine.

The inch-thick platter was purposely held to a diameter of about 20 inches for the first test.

The platter, or beam, consisted of alpha particles, which are the cores of helium atoms after the electrons have been stripped away.

Appearance of the beam at about 4:40 p.m. Tuesday brought jubilation and cheers as dozens of workers in A&M's Cyclotron Institute looked on. Many had worked both night and day for the moment.

W. A. McFarlin, associate director of the Cyclotron Institute, said, "We're extremely happy about getting the beam," and added that after further testing, the beam would be enlarged and extracted from the machine for scientific experimentation.

The cyclotron, building and support equipment cost more than \$6 million. The device is designed to enable scientists to learn more about the cores of atoms.

The machine is patterned after a cyclotron at the Lawrence Radiation Laboratory at the University of California, but has a number of design improvements.

A&M scientists have numerous experiments planned once the machine is fully operational and out of the test phase some time this fall.

Gary DeHaven, operations crew chief for the cyclotron, said it was unusual to be able to achieve a beam of such intensity so readily. "It usually takes weeks and weeks on a new machine to get one which might be only a thousandth as strong," he said.

It was estimated that the alpha particles were being accelerated to an energy of more than three million electron volts at around five millionths of an ampere.

As in all extremely large and complicated pieces of scientific equipment, there were numerous

problems which had to be solved before operation was possible. Invisibly tiny leaks in the vacuum system had to be plugged and the "dee" which accelerates the particles had to be tuned and allowed to rid itself of unwanted gases in its copper to solve problems of discharging.

The cyclotron is of the variable energy type, meaning it can accelerate nuclear particles to various energies. When fully operational, it will be able to accelerate protons up to around 60 million electron volts.

New insights into the nature of matter through experimentation with nuclear particles might well result from its operation.

With achievement of the first beam in the cyclotron, scientists at the institute plan to keep increasing energy until the machine is at design standard.

Electric Courses Conducted At A&M

Two short courses are under way in the Electric Power Institute of Texas A&M's Electrical Engineering Department.

Sixteen men are enrolled in a two-week school in "Semi-conductors in Protective Relaying Circuits," headed by principal instructor W. L. Beasley. The course ends Aug. 18.

A one-week "Theory and Application of Symmetrical Components" course, directed by Lewis H. Haupt, ends Friday. Seventeen men are registered.

Firemen Close Annual School

Presentation of certificates to 84 Spanish-speaking firemen last week closed out the 38th Firemen's Training School at Texas A&M.

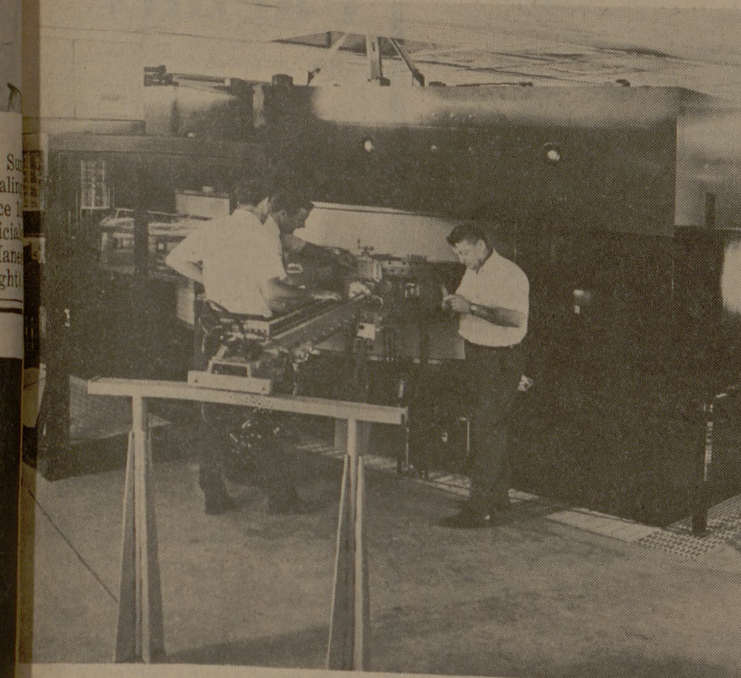
"This year's was one of the most successful and smoothly operated programs we have ever conducted," remarked Henry D. Smith, firemen's training chief for A&M's Engineering Extension Service. "A great deal of credit for this belongs to university personnel from numerous departments for special assistance."

For his leadership in establishing a special school for Spanish-speaking firemen, Chief Smith was presented a plaque naming him "Distinguished Good Neighbor." A. G. Ainsworth Jr. of Luling made the presentation for the Good Neighbor Commission.

Enrollment figures were smashed during the three weeks of fire schools. Participants totaled 2,260, better than the 1,965 record established last year. The totals include firemen, instructors and consultants from 29 states and 17 foreign countries.

The school's safety record also remained intact. Smith noted that no participant has been seriously injured in 38 years.

A Spanish-speaking delegate, however, is recovering from a heart attack suffered at registration. Smith said engineer Alberto Delgado, safety director for Monsanto Mexicana Chemical Company, Mexico City, is showing steady improvement in a local hospital.



CYCLOTRON "TURNED ON"

Scientists at Texas A&M University have for the first time created a beam of nuclear particles in their new variable energy cyclotron. It appeared as a flowing purple "platter" in the center of the machine. Here, workers are shown completing preparations in advance of the trial run. They are, left to right, Walter Chapman, mechanical maintenance supervisor; W. A. McFarlin, associate director of the Cyclotron Institute; and William Woollet, vacuum and cryogenics technician. Cyclotrons are used for scientific investigation into nuclear particles.

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PROGRAM HIGHLIGHTS

FRIDAY—August 25

INTRODUCTION and OVERVIEW

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SATURDAY—August 26

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Martin Pegler, Resident Display Inc., author of "Dictionary of Interior Design"

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