CAMPUS ACTIVITIES

Tuesday

North Texas State University Lab Band, Arts Committee, Rudder Auditorium, 8 p.m.

International Folk Dancers, 7:30 p.m., 201 MSC

Political Forum, "John Hill", 7 p.m., 504 Rudder

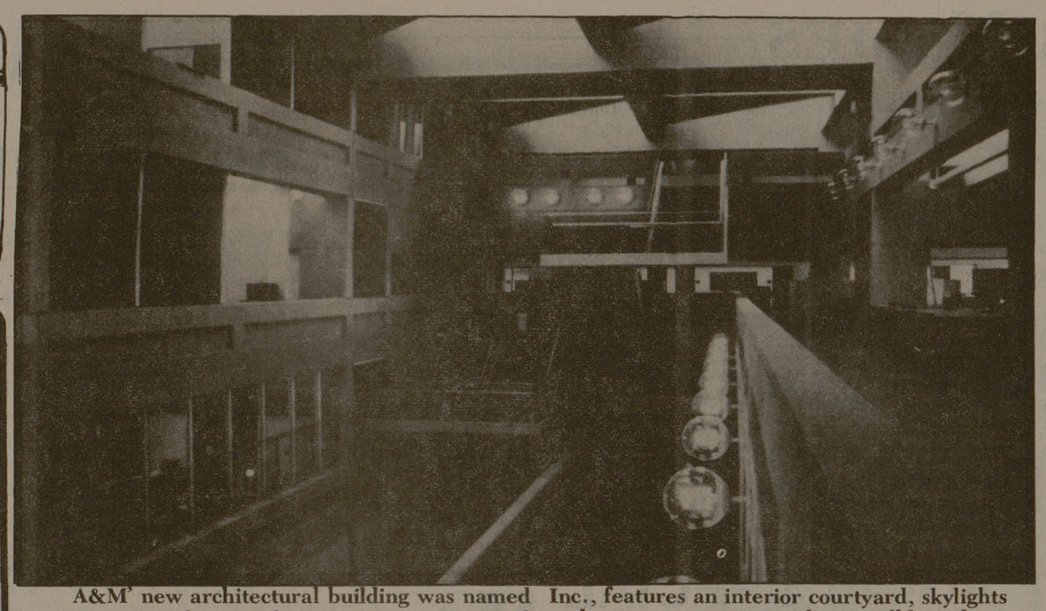
English Department, "Northorp Frye", lecture, 2 p.m., 510 Rudder

Wednesday

Dance Arts Society Performance, Forum, 8 p.m.

Iranian Students Association, lawyer speaks on political situation in Iran, 8 p.m., 701 Rudder

TAMU Scuba Club, 7:30 p.m., 607 Rudder



A&M' new architectural building was named as an award winner by an engineering council for its innovative design. The building, designed by Datum Structures Engineering, Inc., features an interior courtyard, skylights and precast concrete with a sandblasted exposed aggregate finish.

Building gets prize

The Texas A&M University School of Architecture's new building has been cited as an award winner by the Consulting Engineers Council of Texas.

The council presented this year's Texas Engineering Excellence Awards to four firms, including Datum Structures Engineering, Inc., of Dallas for its design of the College Station facility.

The Texas Engineering Excellence Awards are presented each year by the council in recognition of engineering achievements demonstrating the highest degree of merit and ingenuity in contributing to technical, economic or social advancement.

The awards were presented Friday at the council's annual awards luncheon in the Houston Oaks Hotel. Displays of the award-winning projects Monday began a tour of five Texas cities which lasts until Dec. 9.

The Texas A&M building is a 4-story, 102,000-square foot structure, composed primarily of precast concrete with a sandblasted exposed aggregate finish.

It features an interior courtyard on all four stories, extensive use of skylights and a system of bridges and cantilevered stairs to traverse the courtyard.

Exposed concrete was used for both interiors and exteriors of the building to reflect permanence and stability, reduce finishing costs, provide for low maintenance and energy requirements and blend with existing campus structures. It also was used to create a contemporary, bold appearance which will encourage creativity from the occupants.

Planned liquid helium plant will need only 8 to operate

United Press International

BUSHTON, Kan. — Union Carbide Corp. has announced plans to build the world's largest liquid helium plant in this small central Kansas town and become the largest supplier of helium by mid-1979.

The $7 million plant will be able to liquefy 300 million cubic feet of helium annually, said Robert D. Kennedy, the president of the Union Carbide division that will be operating the plant.

The plant is to be built on land adjacent to and rented from Northern Helex Co., a subsidiary of Northern Natural Gas Co., and will use crude helium bought from Northern.

Union Carbide spokesman Dennis Holt said the plant will be computer-automated, needing only eight workers. Holt said the plant will purify and liquefy the helium by compression and cooling, and will store the non-flammable, non-explosive and non-toxic product in a planned 32,000-gallon tank.

Last year Union Carbide built a helium purification plant with a daily capacity of 300,000 cubic feet at Bushton — about 30 miles northeast of Great Bend — and has been marketing the gaseous helium since. With the addition of the liquid helium plant, Holt said, Union Carbide will become the nation's leading supplier of helium.

Helium, one of the lightest gases and difficult to liquefy, is extracted from supercooled natural gas. About 95 percent of the time, helium is used in gaseous forms for such things as a breathing mixture for deep-sea divers, as pressuring and purging systems in the space program, for cooling vacuum surfaces and as a shielding gas to prevent fires in certain welding applications.

Laser fusion breakthrough sparks hope

United Press International

LOS ALAMOS, N.M. — The successful testing of a powerful laser may be a breakthrough in developing a virtually inexhaustible energy source from a chemical found in seawater, report scientists at Los Alamos Scientific Laboratory.

"This was a major step toward developing the data we need to accomplish the laser fusion goal," said Jim McNally, associate division leader of the LASL's laser division.

The eight-beam carbon dioxide laser, tested April 12, gave scientists hope in their work with fusion reaction, which can generate energy from deuterium. Deuterium is an element found in seawater, and generated energy from the virtually inexhaustible matter could answer much of the world's future energy needs.

A second phase of testing the device is scheduled within nine months, when the beam will be focused on a tiny pellet of deuterium and tritium. Tritium is an element produced during the fusion reaction.

Scientists hope that when the intense laser beam is focused on the tiny fuel pellet, it will be condensed into extremely dense matter and will produce a fusion reaction generating heat. The heat from the fusion reaction could theoretically be used to power electrical generators.

McNally said successful testing of the device was important because it will lead to practical experiments to confirm calculations for creating fusion reactions with lasers.

"Until now, we just haven't had machines with high enough power to get the experimental data in hand to verify the calculations," he said.

The laser delivered a beam equal to 15 trillion watts for less than a billionth of a second — in contrast to the nation's total electrical generating capacity of half a trillion watts.

The 15 trillion watt laser is the prelude to an even more powerful laser which scientists hope will be a "break-even" device. In theory, the break-even device would produce more than enough energy needed to operate the lasers which bombard the fuel pellet.

"This machine tested April 12 will very definitely help us toward development of a break-even device," said McNally. "We are, of course, cautious and conservative — but the feeling right now is great. Now we can get on with the experiments and get on with the program of achieving successful laser fusion."

The more powerful laser machine, expected to be completed by 1983, will cost an estimated $55 million. Ground was broken last summer for the device, known as Antares.