NEWS From GEORGIA TECH'S
ENGINEERING EXPERIMENT STATION
Atlanta, Georgia 30332

CONTACT: Mark Hodges/Ray Moore
(404) 894-3405

NEW BREEDER REACTOR MAY
NOT HAVE MILITARY POTENTIAL

August 21, 1980

For Immediate Release

ATLANTA, GA....How will the world produce nuclear power when its uranium supply runs out?

The answer to this question may be a new kind of breeder reactor, one without the military hazards which led to the cancellation of the American breeder development program several years ago.

Breeder reactors burn initial batches of uranium or plutonium to generate nuclear energy. Radioactive wastes are produced in this process which can be re-used for fuel over and over again. So some leaders have promoted breeders as a technology for conserving dwindling reserves of uranium. However, the problem with this approach is that breeder wastes can also be used to make nuclear weapons.

"President Carter halted the breeder program in this country because he didn't want to see nuclear warheads spread throughout the world any more than they already are," says Dr. R. A. Karam, a professor of nuclear engineering at Georgia Tech.

Carter's stand on this issue has created intense friction within the NATO alliance. America's Western European allies have invested heavily in nuclear power as an alternative to oil. They fear the day when uranium resources will be depleted, a day which some experts believe will come before the last petroleum is pumped from the ground.

In a recent technical article, Karam suggested a way out of this dilemma: a new type of breeder which the Tech professor calls a "denatured reactor."

(more)

According to Karam, the denatured breeder would use different start-up fuel than a standard reactor.

"By mixing manmade uranium with natural uranium," Karam says, "we can produce a fuel which can be recycled for thousands of years -- but which cannot be chemically separated to make a bomb."

By the time the earth's uranium reserves drop drastically low, astronauts may be mining the moon for this metal. But in the meantime, Karam believes that breeder technology need not be abandoned because of fears of a new arms race.

# # #