Nuke experts disagree over waste, safety issues

By JOHN ROGOVIN

Despite the ongoing glut of oil, the US still faces the crucial choice of whether to develop new power reactors for the production of electricity. The Reagan Administration supports the nuclear industry, but there are still not clear that nuclear power is safe and sufficient.

As a result, many researchers and teachers who will be charged with advancing or halting the industry's technological growth are divided on the issue of nuclear power.

Supporters of the nuclear industry like Herbert Goldstein, dean of physics and nuclear engineering at Columbia, view nuclear power as safer and more economical than oil and a power's contribution to total electricity production in the United States is rising from 12 percent to about 25 percent.

"The general conclusion is that nuclear power is one of the safer methods of electricity production," Goldstein said. "We're no longer at the laboratory stage—it's working now."

Dr. Michio Kaku, assistant professor of nuclear physics at the City College of New York, joins the anti-nuclear industry in claiming that the United States is accepting a "Faujani Boltze" by pushing the state of the nuclear industry.

"In an unforgiving technology like nuclear power, one can go a long way wrong by blowing your face," Kaku warned. "There are 3,100 reported transients in the industry, among them an acknowledged example.

"Scientists have never foreseen the peculiarities of the accident at TMI, and the Bureau of Reactor9 was forced to classify it as the most serious type of nuclear power accident ever."

Yet the Ginna incident last month is perhaps more frightening than TMI, Kaku noted. "It is a perfect example of a steam generator simply aging, corroding, and suffering a rupture, Kaku claimed. The United States has an increasing number of Ginna's projected 25-30 year lifespan, he noted."

Another danger is "embrittlement," the development of unexpected cracks on the inside of reactor vessels, Kaku said. The only way to find them, said Kaku, would be to X-ray the vessels—and the industry has so far shown no interest in such an investment.

"X-raying is not required by the NRC, but it could be the only way of preventing accidents," he claimed.

The persistent problem of waste from a nuclear power plant also poses dangers, Kaku said. At this time, low-to-intermediary-level waste is disposed of through several methods, while high-level waste is stored on site in pools of water.

Goldstine stressed that there was no danger in transporting the low-level waste. He lives a few hundred yards from the Long Island Expressway and "is not worried about transporting nuclear materials" on the highway, he noted.

The issue of nuclear power has become purely political, said Goldstein. Queensborough President Donald Manes, for instance, manipulates the issue for political gain, Goldstein charged. "There are more lies and deceits over nuclear transport than anything," he asserted.

Kaku, on the other hand, termed present methods of disposing of waste insufficient. Low-level waste has been dumped in barrels off the coast of New York City—and of nearly 85,000 barrels, nearly 25 percent have split open. Kaku claimed. Kaku also complained of the "grave danger" posed to the environment by transport of waste, which would possibly contaminate the water table and the land along highways in the event of an accident, he noted.

By JEREMY FELDMAN

Robert Gross, dean of the School of Engineering, is hardly a dynamo at the podium. His gruff, direct speaking approach is reminiscent of a military general.

But last Thursday, addressing an audience of over 200 business and government officials, Gross showed his credentials as a leader of high technology industry. Gross's message came across loud and clear: cuts in federal funding for computer and science programs will place a strain on university engineering programs, and contribute to the national shortfalls in computer engineers and science graduates.

"The resources are stretching very thin," Gross told the conference held in the School of International Affairs on sponsored by a score of schools and professional organizations in New York. "Perhaps financial aid will be swept away with other federal programs."

Gross urged the high technology industry to contribute to student financial aid programs by providing money for student aid and fellowships.

Robert, White House President for Technical and Personnel Development Eric Bloch lamented Japan's recent inroads into the high technology industry. In 1982, he said, Japan is overtaking the numbers of engineering Bachelor of Science graduates in the United States.

"Japan, over the last decade, has invested heavily in research and development much more than the US," Bloch concluded.

"Quality," Bloch said, is preeminent in this kind of industry. "If the US fails to fund more research and development projects, it will fall behind Japan in the next decade, he declared.

Bloch said he was less concerned with current high technology projects, such as memory chips and semi-conductors. His interest, he said, lay in the long-term—in what the industry terms "fifth-generation computers."

The development of these computers, Bloch said, "is worthwhile to watch. Not only is it worthwhile to watch, but we also have to ask something about it if we want to be in the right industry in the next decade."

"Bang—a colorful IBM slide pops up overhead comparing percentages of the Gross National Product spent each year on research and development in the US and Japan since 1960."

U.S. decrease. Japan increase.

Concerned expressions and nodding heads.

Bob Gross could not help but agree with the audience. But Gross immediately added that industry had not competed with government in providing research projects for universities.

Feldman
cowardly observers.

The man who filled his high school football team's patriotic rally "spirit," had been brainwashed with lists of arguments for and against nuclear energy, or wrong" and "giving it all to.

They had been carefully cultivated to the industry's survival.

The mourners, having known men who had lost their lives and limits in Vietnam, blandly tried to believe in the industry for the lives lost. For them the choice was a bitter one, right or wrong and for die for those who had sacrificed before.

And the cowards who, absorbed too much in party and "meaningful" relationships to ever take the time to try and understand their world, were just too lazy and ignorant to really care. It was easy to follow the leader.

The cowards will run away when drafted, or join the Coast Guard. In the last war, they refused to help force change on a social system gone mad, choosing instead to allow it to self-destruct.

And those who did not register. Some got drunk and forgot, waking up in the morning with no idea what they had done, whether their system changed or remained stagnant.

And those who were cared, who spoke their minds in truth, rubbing about Vietnam and civil rights, arguing with parents and friends, all too hurriedly receiving their lifetimes, their families, their lives in the social system, and the individual's place in the puzzle. In other words, there were no choices. There was not a choice or a choice to choose. And those who choose to lose it ultimately change the social system.

Choices are actions and actions force change. Actions lead to change which leads to a new system.

The middle and late 1970's were a period of stagnation and uncertainty. Americans, afraid of past mistakes, chose patiently to defend the status quo. The progress toward goals for the social system, such as racial equality, sexual equality and the restructuring of urban environments, ceased to continue. Americans lost sight of the model for their social system that had been evolving for so long.

When a man named Reagan decided to allow registration to continue, an obvious step away from that model, and a man named Solomon forced Congress to decide the fate of computer and science programs, the decision would be increased by refusing them access to their system's goods. I cannot envisage supporting their project as a whole. It is possible—as the system, and support for it, no longer has meaning. It no longer has a just goal.

Once again young men have finally been forced to choose between personal freedom, oppression, and social self-destruction, or a more just path that they themselves must carve. It is a complex task system, organized specifically so that a chosen few can win and

continued from page three

many must lose. It is a stagnant and un

university of competent observers.

In 1978, the choice was clear. I chose not to register.

For other young men the choice may not seem so clear. Yet, there were about 900,000 (at least, and that is a misoocyte estimate at best) who did not register before January 9, 1982. For some this was a conscious act. They care where America goes in their lifetime and feel that the social system is not the place to choose for them. They feel that the society only in ways that can satisfy their soul.

These men will drop their government

issued swords and pick up shovels and start to build—and stop digging. They will build a nation's future.

It may not be easy looking at yourself in the mirror every morning and seem to have been socially defined as a felon. It may not be too much fun going to jail. But those sacrifices seem somewhat compared to what must ultimately be achieved.