

Aftermath of a fire



AEC
Cleaning up after the plutonium fire.

Plutonium is a diabolical element: unpredictable, difficult to handle and as a result dangerous. In fact, because it combines so readily with oxygen, small plutonium fires are almost an everyday occurrence in Atomic Energy Commission plants that handle it.

But the plutonium fire last May at the AEC's nuclear weapons production facility in Rocky Flats, Colo., was the worst in AEC history. The fire ravaged the installation 21 miles northwest of Denver, though no lives were lost. The fact that the fire took place went generally unnoticed until a Senate budget hearing brought to light a \$45 million request to repair the damages (SN: 7/12, p. 25).

A special AEC board was convened to investigate the cause of the fire, and last week the board made its findings known in a report that has not satisfied everyone. The board concluded that the fire started in a cabinet containing plutonium briquettes, discs three inches in diameter and one inch thick, which, its report indicated, ignited by spontaneous combustion. The cabinet was in a glovebox, a stainless steel booth with plastic windows and portholes from which rubber gloves extend into the interior so an operator can safely handle the plutonium. The gloveboxes are in a conveyor belt system and so are interconnected. Once the fire got under way, it swept right through the system.

The board makes recommendations to prevent a recurrence, including nitrogen atmospheres, compartmentalization, more heat sensors and firebreaks.

It also advocates reconsideration of water as an effective plutonium fire fighter. Firemen refrain from its use in such fires because it can cause a chain reaction in plutonium by bouncing neutrons back into it. In the

case of Rocky Flats, water was used as a last resort, but no chain reaction occurred, says the AEC.

But the board failed to respond adequately to a question still unanswered: Did any radioactivity leak out to the surrounding environs? Its report merely says, "There is no evidence that plutonium was carried beyond the plant boundaries."

And Major General Edward B. Giller, assistant AEC general manager for military application, also maintains: "The system did take care of itself. No plutonium got out into the surrounding area."

Dr. Ralph Lapp, a nuclear consultant, scores the AEC on this point. "They don't give factual data. They don't tell what the results of the survey showed outside the building."

Nor is the Colorado Committee for Environmental Information, made up of scientists from Boulder, fully satisfied.

It had sent a list of questions to the AEC in July, designed to clear up the radiation question. The AEC answers came back, but, says Dr. E. A. Martell,

NEWS BRIEFS

NSF funds; crime; SST

Last week President Nixon signed the bill that grants the National Science Foundation \$477.6 million, some \$40 million less than originally requested (SN: 1/25, p. 88). But he said a provision of the bill requiring NSF to keep Congress "fully and currently informed" of its activities would be interpreted in a way "consistent with the proper division of powers between the Congress and the Executive Branch."

The President ruled out day-to-day reports to Congress by NSF as onerous, and also balked at giving Congress advance information about what the foundation is doing. Premature disclosure could seriously impair the agency's functions, the President said, apparently more concerned with precedent than with the actual sensitivity of NSF operations. □

The National Commission on the Causes and Prevention of Violence issued a warning last week that within a few years America's major cities will be "fortresses" and "places of terror" unless the nation launches a full-scale war on its urban problems. The commission, headed by Milton S. Eisenhower, reported that nearly half of all violent crimes in America occur in the 26 cities with 500,000 or more residents,

a nuclear chemist at the National Center for Atmospheric Research, who is handling the committee's own investigation, "Our committee is not completely satisfied. All we can say is that the information provided by the AEC is inadequate with respect to the extent of escape of plutonium from the plant and its accumulation in the local environment. We are not sure the measurement program is adequate."

Dr. Martell states that not only is he not certain how much radioactivity escaped during the fire, but he is also worried about how much gets out during normal plant operations. The plant will be operational around mid-1970.

The committee is conducting its own investigation and expects to come out with its own report after Jan. 1. Meanwhile, the AEC has ordered all its facilities, from plants such as Hanford, Wash., and Savannah River, Ga., to laboratories such as Brookhaven and Argonne, to review their fire safety procedures and look for any fire risks, whether from plutonium, gasoline or anything else that burns.

although these cities comprise only 17 percent of the county's total population.

In another report this week, the commission advocated lowering the voting age to 18 and easing marijuana laws. Harsh penalties for the use of marijuana have become a source of "alienation among the young," the report said, and the restrictions on voting lead young people into "a search for alternative, sometimes violent, means to express their frustration over the gap between the nation's ideals and actions." The commission also praised President Nixon's plan for a lottery draft, adding that the youth of today "face the prospect of having to fight in a war most of them believe is unjustified or futile, or both." □

The controversial U.S. supersonic transport got an additional boost toward existence this week, as the House of Representatives refused, 126 to 64, to delete \$96 million in fiscal 1970 funds from the Transportation Department's \$6.6 billion appropriation bill. The funds, to begin construction of two prototypes, support President Nixon's September decision to go ahead at least that far (SN: 9/27, p. 265). The battle is now in the Senate, where the House move only renewed the ongoing fight. □