

cial nuclear power plants would cost the government \$39 million and force a delay of 18 months. Construction of a cooling pond might cost as much as \$72 million. In addition, any change in DOE discharge plans would constitute an admission that hazards are created by the discharges of two other Savannah River Plant reactors, both of which spew hot water into the river. Modifications of the L-reactor may force costly reforms throughout the plant site.

NRDC is also worried about the fact that the L-reactor, like the others, is not covered by a concrete vessel to contain

any gases that would leak from the reactor in the event of an accident. At best, its filters would trap only a portion of the radioiodine released in the event of a partial or total core meltdown. None of the radioactive noble gases, such as krypton, would be trapped at all.

Although plant officials say the chances of such an accident are small, radiation releases stemming from lesser incidents have been recorded by DOE's own monitoring stations. In 1961, for example, the plant released an estimated 153 curies of radioiodine to the atmosphere, well above the amount released

in 1979 at Three Mile Island in Pennsylvania. Plutonium, tritium, and various radioactive elements have been discovered in a variety of environmental samples taken over the years from the surrounding communities—albeit in small amounts.

Several NRDC attorneys recently wrote that given all of the potential hazards, "we have never seen such a blatant attempt by an agency to evade its responsibilities" by not preparing a formal impact statement. DOE has promised a response within a week or two.

—R. JEFFREY SMITH

Nuclear Freeze Candidates Claim Mandate

Election made little impact on balance of power on R & D in Congress; activists seek public choice on issues as well as candidates

The election results of moderate Democratic gains in the House and a standoff in the Senate are expected to bring no major changes in the lineup on science and technology issues in the next Congress. As for arms control, proponents of a nuclear arms freeze claim that the near sweep of state and local referendum amounts to a national mandate that the government pursue a mutual and verifiable nuclear arms freeze with the Soviet Union. They concede, however, that it may be difficult to translate the results at the polls into changes in U.S. policy.

Nuclear freeze initiatives won in eight of nine states and in the District of Columbia and all but two of the other 29 jurisdictions in which they were on the ballot. Organizations active in behalf of profreeze candidates for federal office are claiming substantial success, and environmentalists are asserting that a similar national effort is the most effective to date in promoting candidates favorable to environmental issues. For profreeze partisans, the next move will be to seek passage of a nuclear freeze resolution in the House and Senate after the new Congress convenes.

In Congress, the only major election day casualty in the science and technology hierarchy was Senator Harrison (Jack) Schmitt (R-N.M.) who lost to state attorney general Jeff Bingaman by a 54 to 46 percent vote. Schmitt is chairman of the Senate Appropriations subcommittee that handles biomedical research and education funds and of the Commerce subcommittee on science, technology and space. Schmitt was the

target of perhaps the most intense efforts against any candidate by environmentalists because of what they viewed as his negative record on environmental issues. A down-the-line supporter of Reagan policies, Schmitt was a Republican running in a state with a 2 to 1 Democratic majority in voter registration.

A former astronaut, who is holder of a Harvard Ph.D. in geology, Schmitt was a

Stafford (R-Vt.), chairman of the Committee on Environment and Public Works.

The defeat in the California Senate race of Governor Jerry Brown by San Diego Mayor Pete Wilson deflected from the Senate a potential champion of high technology. Brown, who at one point advocated a space program for his state, has been an increasingly enthusiastic apostle of high technology as the key to

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strong advocate of both civil and military space projects and had acquired a key role in space affairs in Congress. No obvious successor is in the wings. Senator John Glenn (D-Ohio), another astronaut alumnus, has avoided close identification with space issues and is regarded as busy being a contender for a presidential nomination in 1984. Another former astronaut, Republican Jack Swigert, has been elected to a House seat. Swigert, who gained Hill experience as a top staff member on the House Science and Technology Committee, won election from a suburban Denver district.

In the Senate, two incumbent Republicans with chairmanships relevant to research and the environment kept their seats after being said to be in jeopardy. They are Orrin G. Hatch (R-Utah), chairman of the Committee on Labor and Human Resources, and Robert T.

economic growth and the creation of new jobs.

The Senate will get a recruit with solid entrepreneurial credentials in a growth sector of business in Frank R. Lautenberg, who scored a come-from-behind win in New Jersey over the engaging grande dame of the House of Representatives, Millicent H. Fenwick. Lautenberg is credited with building a computer services and management firm, Automatic Data Processing, into a half-billion-dollar-a-year business employing 12,500 people. In a year of big campaign spending, Lautenberg reportedly put some \$2.6 million of his own funds into his primary and general election campaigns.

In the Democratically controlled House, no incumbent chairmen were defeated and reassignments to committees in the new Congress are not expected to

have a major effect on key science and technology slots.

In votes on the nuclear freeze in statewide elections, the proposal was rejected only in Arizona. The measure won in California, Massachusetts, Michigan, Montana, New Jersey, North Dakota, Oregon, and Rhode Island. The proposal also prevailed in the District of Columbia, Chicago, Denver, and Philadelphia and in a number of smaller jurisdictions. In all, the question was put before about a quarter of all those voting in the general election. Wisconsin voters approved the freeze resolution in the state's September primary.

Of all the contests over the freeze, the one in California drew the most attention because both sides mounted their biggest campaigns there, with the Administration in the waning days of the campaign dispatching a corps of officials to argue against the freeze.

The final 52.5 to 47.5 percent vote in favor of the freeze in California was much closer than had earlier been predicted by proponents on the basis of polls that showed margins of up to 2 to 1 in favor. Spokesmen for the freeze campaign point out that the freeze won while five other referenda on the ballot were rejected, and Governor Brown, who put major emphasis on his profreeze position, was decisively defeated.

The Nuclear Weapons Freeze Campaign organization, with a clearinghouse in St. Louis as well as a Washington office, provided some national coordination for the effort. Those involved say, however, that no centrally orchestrated push to put freeze initiatives on the ballots was mounted. This was left to grassroots organizations. Wording, therefore, varied on different initiatives, but all called for a mutual freeze on testing, production, and deployment of nuclear weapons and their delivery vehicles.

The freeze proposal provided a focus for the activities of other peace and antinuclear weapons groups. An informal coalition to support the freeze developed, including such organizations as SANE and the Council for a Livable World.

Coalition organizations extended their campaign activities beyond support of the freeze initiative itself to fund raising and volunteer work for profreeze candidates. The Council for a Livable World's political action committee, PeacePAC, for example, targeted 12 antinuclear freeze incumbents in the House, dubbing them the "Doomsday Dozen," in apparent emulation of environmentalists who in the 1970's singled out a "Dirty Dozen" legislators with poor records on en-

vironmental issues. Four of the 12 targeted by PeacePAC lost. They were John LeBoutillier (R-N.Y.), Don H. Clausen (R-Calif.), James K. Coyne (R-Pa.), and John H. Rousselot (R-Calif.).

The difficulty of ascertaining the influence of a particular issue, such as the freeze, in determining voter choice for particular candidates was acknowledged by coalition spokesmen at a press conference on the day following the election. Although issues such as the economy and Social Security were said to have greater weight in voter decisions, it was argued that in close contests issues like the freeze could be decisive. Freeze spokesmen claimed that the profreeze positions of moderate Republican senators Stafford and John H. Chafee of



Senator Harrison Schmitt

The only major election casualty to affect congressional lineup on science policy

Rhode Island contributed significantly to their narrow wins. Environmentalists also assert that in Vermont and Maine, where acid rain has become a matter of concern, support of environmentalists helped both Stafford and Maine incumbent Democratic Senator George J. Mitchell win close races.

The most persistent questioning from reporters at the press conference was about the likely impact of the freeze on Administration policy, since the referenda were only advisory and the same would be true of profreeze resolutions that might be passed in the House and Senate. Coalition spokesmen agreed that the value of the vote is as a clear expression of public opinion. They said the campaign's aim is to influence the Administration to begin serious arms control negotiations.

In state elections, nuclear power issues were less prominent than in recent elections, but the results revealed some new twists. In Massachusetts, voters placed what appears to be a de facto ban

on nuclear power development by approving legislation creating formidable hurdles to the construction of new nuclear power plants or facilities for the disposal of low-level radioactive wastes. The legislature would first have to find that proposed installations met very demanding design requirements; each project would then be the subject of a referendum. Plant siting was not a major issue since there are no immediate plans for new nuclear power plants, but the restrictions on low-level waste disposal could create serious difficulties for Massachusetts' participation in regional efforts to deal with the problem.

In Maine, voters rejected by a 55 to 45 percent vote a proposal to shut down the Maine Yankee plant in Wiscasset and ban construction of nuclear plants in the future.

In Idaho, a new element may have been injected into national nuclear power politics by the presence of a pronuclear initiative on the ballot. The proposal, which originated with an organizer for the conservative John Birch Society, provides that restrictions cannot be placed on nuclear development without such restrictions being submitted to the public for decision in a statewide vote. The initiative won by a 6 to 4 ratio and is attracting interest from pronuclear activists in other states.

In Colorado, voters turned down a proposal to amend the state constitution to allow creation of a fund to finance conversion of the Rocky Flats nuclear weapons plant to civilian uses; it also called for the cessation of plutonium processing in the plant. The vote was 2 to 1 against.

In an election that brought mixed results, the success of the freeze campaign is perhaps the most conspicuous development. That success is encouraging proponents of the freeze to seek formal support for it in Congress and to carry the momentum of the campaign into the 1984 elections. The nuclear arms freeze organizations and environmental activists are making effective use of techniques employed with telling effect in the past decade by anti-property tax partisans, antiabortion organizations, and certain conservative political action committees. If there is continued growth in these trends of increased use of initiatives to put controversial issues on the ballot and of fund raising and deployment of volunteer campaign workers outside the regular political party structures, single-issue interest groups will obviously be an increasingly important and volatile factor in American politics.—JOHN WALSH