ate German intelligence for Groves and so, in Stone's view, would have known that German scientists were getting nowhere with their bomb project. Chikov had written that at the time Perseus was recruited he had said that Manhattan Project scientists had been tricked into working on the bomb when Groves and others knew the Nazis were lagging far behind. This may have been the motive for Morrison's actions, Stone thought.

Clutching a hunch that Morrison was Pers, Stone called on Morrison twice in 1994, never accusing him of spying, but sounding him out about Chikov's account and suggesting that those who participated in wartime espionage should now come forward and explain their motives for the sake of history. It became clear to Morrison and his wife what Stone was proposing and led, Morrison said in a telephone interview, to "five years of estrangement."

Chapter 29 in Stone's book surprised Morrison nevertheless. "I was incredulous and distressed," said Morrison. His written response to the chapter was circulated to FAS officers and others. In it, Morrison discusses the "obvious discrepancies" between Perseus as described by Chikov and his own life. Chikov stated that Perseus was recruited by the KGB during a visit to his ailing parents in New York City in 1943. But Morrison's parents lived in Philadelphia at the time. Chikov wrote that Perseus had fought with the International Brigades during the Civil War in Spain, though Morrison didn't set foot in Spain before the 1980s and hadn't crossed the Atlantic at all before 1959. "I was never plausible infantry material among the volunteers who sought service in Spain, since I walked with a strong limp and a cane, the residue of polio in 1917 or 1918, symptoms still with me," says Morrison, who is now 83 and more or less housebound.

Morrison argues that he does not fit Chikov's tale "objectively or subjectively, and what I assert is provable by public record." Now that he has been "erroneously" identified as Perseus and Scientist X, Morrison hoped that Stone would apologize. "We will both be healed by the truth," said Morrison. "I remain loyal to the letter and the spirit of my commitment to atomic secrecy, and I have never breached the trust that my colleagues, my employers, and my country placed in me."

In response to a letter that Morrison sent to Stone on 10 May, setting out the differences between his life and the events cited by Chikov, Stone replied a week later: "In the light of these facts, which I certainly cannot contradict, I can only accept your denial that you are not Perseus." Urged by FAS council members to send a more personal apology to Morrison, Stone wrote on 5 June that he had "accepted your denial that you are Perseus. The question has arisen . . . whether I believe that you might be some other spy by some other name. I do not. I want to apologize to you for the unfavorable publicity, which raised unfortunate questions of your innocence. . . . I have always admired you and remember, with great warmth, the many kindnesses you showed me during your three-year chairmanship of FAS. I do regret that this affair has estranged us for so long and caused you the pain and concern that I know it must have."

IRWIN GOODWIN

Spallation Neutron Source Restored to Life in House, Raising Hopes for Starting Construction in 2000

As baseball's positivist philosopher Yogi Berra was fond of saying, "It ain't over till it's over." That epigram seems apt in chronicling the saga of the Spallation Neutron Source as it wends its way through the budget maze for fiscal 2000, which begins on 1 October. The largest new science project in the budget, the $1.36 billion SNS wasn't considered a shoo-in when the Department of Energy listed it among the highlights of the millennial year. DOE asked Congress to allocate $214 million for the project in a budget with tight spending caps and in competition with other programs that are certain to be shortchanged next year. So when F. James Sensenbrenner Jr, a frugal Republican of Wisconsin and the House Science Committee's chairman, announced that he liked the SNS but would withhold all funds for its construction until DOE met his list of conditions about its technical staff, building schedule, and other matters, the machine's future seemed bleak (see PHYSICS TODAY, June, page 49).

True to his word, Sensenbrenner introduced DOE's Research, Development, and Demonstration Authorization Act of 1999 (H.R. 1655) with only $17.9 million for the SNS—all for continued research and design and none for construction. Money that might otherwise have been directed to begin building the SNS was shifted to other programs in DOE's science office, particularly biological and environmental projects and fusion energy research.

The science committee's discussion of the bill on 25 May resembled a nursery school food fight—though there was much more at stake than jelly beans and oatmeal cookies. First off, Jerry Costello, an Illinois Democrat, offered an amendment that would have allowed SNS construction funds, though scaled down to $150 million, $46.1 million below DOE's request. Sensenbrenner's bill, Costello argued, "would effectively pull the plug on the nation's number one science project." The amendment included spending cuts in DOE science programs to offset the SNS construction costs. But Sensenbrenner objected that the offsets proposed by Costello totaled only $90 million—$40 million in fiscal 2000 and $50 million in fiscal 2001. Sensenbrenner then reiterated all the problems he had reported to the committee in March, after he had visited Oak Ridge National Laboratory, where the machine is to be located, and interrogated David Moncton, a condensed matter physicist at Argonne National Laboratory who was recruited to manage the SNS. While he endorsed the project and considered Moncton more than equal to the job, Sensenbrenner said he wanted DOE to provide better answers to his questions lest "taxpayers are left holding the bill," citing for emphasis the debacle of the Superconducting Super Collider.

Joe Barton, a Republican, whose Texas district was the site for the SSC, expressed his disapproval of Sensenbrenner's position. "This committee has an obligation to fund basic research," said Barton, "and this project is basic research." If the chairman is unhappy with the management at DOE, that "should not be the reason to derail the SNS," he added. "Let's reform DOE, but don't kill the project to improve the department."

Into the fray came another Republican, Vern Ehlers of Michigan, the committee's vice chairman, who voiced concern that the SNS had become a partisan issue, even though both sides approved the project. He was satisfied with Sensenbrenner's review of the project's problems, though he appeared to regret the chairman's strong opposition to funding its construction until DOE resolved all the problems. Still, it was Sensenbrenner who "took it upon himself" to pay his own way to CERN in Switzerland "to negotiate a better agreement" for America's parti-

cle physicists at the LHC (see PHYSICS TODAY, August 1997, page 43).

After another hour of acrimonious debate, Costello's amendment failed on a 17–17 vote, and the committee recessed for lunch. During the 80-minute break, Bart Gordon, a Democrat of Tennessee, drafted a compromise plan that included $100 million for construction and a similar amount of offsets once DOE met all of Sensenbrenner's conditions. After lunch, the new amendment passed, 28–0. In announcing the outcome, Sensenbrenner joked: "The Secretary of Energy just called 911 and is waiting for the paramedics to resuscitate him." But, Sensenbrenner added, Energy Secretary Bill Richardson should be aware that DOE will get no funds to build the SNS "until he certifies in writing to our committee and to the comparable committee in the Senate that the senior project management positions have been filled by qualified individuals" and that a cost baseline and spending milestones have been reviewed by an independent body "outside the department and without any financial interest in the project. . . . And that Mr. Moncton achieves his authority from the secretary himself rather than anybody else in the department, including the director of Oak Ridge."

Two days later, the Senate Appropriations Committee approved $187 million for the project, $27 million short of DOE's request, but significantly higher than the House Science Committee's figure. Ernie Moniz, DOE's undersecretary, said in an interview that the Senate number would allow the SNS to award the contracts necessary to begin construction. "It will be hard to get the project going right with the lower figure," he said. **IRWIN GOODWIN**

President's Science Adviser, Academies and APS Officials Oppose Restrictions on Foreign Scientists at Weapons Labs

In the wake of the furor surrounding reports that China purloined technical data on every nuclear warhead in the US arsenal, Congress came up with at least six bills calling for either an end or limitations to visits by scientists from "sensitive" countries to the Department of Energy's weapons laboratories. Two weeks after the initial allegations in early March, Senator Richard Shelby, an Alabama Republican, introduced the first of the bills. It called for a moratorium on visits by scientists from DOE's list of 22 countries considered to be nuclear wanna-bes or "rogue" states with repressive regimes or harboring terrorist groups. In submitting his bill, Shelby, formerly an unflappable city prosecutor who was elected to the House (in 1978) and later the Senate (in 1986) as a Democrat and then switched party affiliation (in 1994), thundered that the "ongoing threat to our national security requires a swift and decisive action." Indeed, he went on, action is clearly necessary because there is "an institutional disregard for security at our national labs."

Shelby's bill and its implications were Topic A at the centennial meeting of the American Physical Society (APS) in Atlanta, where Energy Secretary Bill Richardson took the opportunity, in his keynote address on 22 March, to respond. Richardson vowed to "maintain and strengthen the tall fences that protect the nation's secrets," but then added: "We can't be intimidated into closing ourselves off. It is critical that our laboratories, which house so many important research facilities and our finest scientists, do not become isolated from the world."

Since then, Richardson has defended the practice of allowing foreign scientists to access unclassified areas of the labs after background checks are made by the FBI and DOE's counterespionage unit.

On 8 June, in his first public statement on the issue, Neal Lane, President Clinton's science adviser, told an audience attending a symposium of the US Civilian Research and Development Foundation, which provides grants to scientists in Russia and other states of the former Soviet Union, that DOE's labs engage foreign researchers "because it is in our nation's interest to do so—both our national security interests and our interest in maintaining scientific excellence." In fact, Lane continued, "Through the foreign visitors program, we are actually strengthening national security."

Not only does the US benefit from the resulting exchange of scientific ideas, he observed, but international collaborations are critical to arms control. "Even purely national goals, such as maintaining our own nuclear weapons capability, require us to keep abreast of advances in the international scientific community," said Lane. "Some of the best atomic physics codes—unclassified computer calculations about the structure of atoms—are now written abroad. The science embodied in these codes is critical to our stockpile stewardship program, which will rely on sophisticated computer calculations, instead of nuclear tests, to ensure the reliability and safety of our nuclear weapons stockpile."

Lane's remarks disabused some of the statements delivered on Capitol Hill about spying by scientific agents of the People's Republic of China. "There has been no allegation that any foreign visitor was engaged in espionage," said Lane. "Foreign nationals do not have access to classified material except in very rare, carefully controlled cases. Evidence and allegations of espionage by China have involved US citizens. These are serious matters. . . . But we must be careful not to adopt a misguided, xenophobic approach that would potentially undermine our national security."

A moratorium on foreign visitors proposed by some in Congress, Lane added, would most likely "hamper our efforts to control the post-Soviet arsenal of weapons of mass destruction, not only because it would block collaborative efforts here, but also because it would immediately lead to curtailment of US access to sites in Russia. The ability to host reciprocal visits to US facilities is critical if we are to maintain the ability to engage with institutes and researchers in Russia. Moreover, such a moratorium would seriously interfere with our labs' ability to participate in cutting-edge international science and technology. That would be bad for science and bad for the nation. Having made these points, it must also be said, in the strongest terms, that we must maintain the highest security around classified areas of activity while maintaining openness in less sensitive areas."

While not in such stirring words, official statements on scientific openness have also been made by the National Academies of Sciences and of Engineering and the Institute of Medicine and by APS. On 21 May, the three academies expressed their concern about "the consequences of potentially inappropriate restrictions" on foreign visitors at DOE labs. "Such restrictions could harm our US national interests by impeding scientific progress, weaken the nation's role as a key player in the international scientific community, and endanger international cooperative activities that bolster our national security and well-being by addressing such issues as nuclear safety and environmental cleanup." The statement ended with a grim warning to Congress: "New restrictions on interactions with foreign scientists would be damaging in ways we cannot fully anticipate."

The same day, the APS council released its statement. It also empha-