new DOE reactor may be behind the fuss.

In the same vein, a report on the incident written for DOE on 23 September by weapons production officials stresses two general points: that the P Reactor was never out of control and that there was no increased risk to public health or safety. The report, which remains in draft form, seems to give equal weight to improving "media policy" for better relations with the press and upgrading "procedure compliance" by plant operators.

On the other hand, Synar's staff has released several historical documents showing that the August events may be part of a pattern of idiosyncratic management. The papers include a 1985 study commissioned by Merz of du Pont, listing 30 major accidents since 1955. Several radioactive spills are mentioned without a full account of the consequences, and two cases of fuel overheating in 1970. Merz says the fuel accidents cannot be compared with a fuel melt in a commercial reactor because the latter are more volatile. In the less serious case at Savannah River, a fuel tube developed pinhole erosion, and in another case, a 5-foot section began to melt. Merz says he asked for this study himself as part of voluntary safety review. It shows that major mishaps all but ended in the mid-1970s.

Synar also released an inch-thick report by the NUS Corporation dated May 1988, reviewing the entire operating history of the Savannah River Plant through 1987. It mentions dozens of environmental spills, reactor incidents, and miscellaneous problems, noting that some important cases were not recorded in the reactor incident logs. It identifies 32 safety topics that still need to be addressed; 10 that are being resolved; and 6 where "resolution appears successful."

There is a hidden obstacle to getting these old issues cleared up, Starostecki wrote in a tough memo to his superiors on 16 September: some senior DOE managers have "an attitude towards production reactor safety which on the face seems to be similar to that which existed in the space program prior to the Challenger accident. . . . Such a mind-set presumes reactors are safe unless demonstrated otherwise." He asked the department to back his effort to change that mind-set, in particular, to demand that managers of the production staff take the new safety goals to heart.

"The harshest critics of this department in the last 3 years have been within the department," says Herrington. While this is not literally true, DOE has begun a sweeping environmental and safety reform. It remains to be seen whether the next administration will have the stomach to finish it.

■ **ELIOT MARSHALL**

Security at Weapons Labs

"Agents Said to Have Entered Bomb Labs," announced a headline in the *New York Times* on 11 October. The following day, newspapers across the country reported that known and suspected Soviet intelligence agents had been admitted to the Los Alamos, Lawrence Livermore, and Sandia National Laboratories, and that citizens of nations believed to be interested in developing nuclear weapons had also been in the labs talking with scientists about potentially sensitive matters.

The source of these "revelations" was a report by the General Accounting Office (GAO), an investigative agency of the U.S. Congress, which provided the basis of a well-publicized hearing by the Senate Committee on Government Affairs. The hearings were chaired by Senator John Glenn (D–OH), who said that these incidents ocurred because the Department of Energy (DOE), which funds the labs, and the labs themselves "systematically failed to enforce existing security standards for clearing foreign visitors." The chief failing was that background checks were not run on many individuals although the regulations clearly called for them.

What got lost in all the handwringing and the publicity was that there is no hard evidence that any classified information has been compromised. The GAO investigation was concerned with procedures for admitting foreign visitors for unclassified meetings in nonsecure areas of the labs, for much the same kinds of talks they might have with colleagues in universities.

Although some previsit procedures were not followed, the visiting scientists were subjected to controls during their visits that are applied to all guests in the labs who lack security clearances, according to lab officials. This means they would have been escorted at all times (even into the bathrooms) and they would not have been permitted into secure areas. "Anybody reading today's papers would believe that we have Soviet agents running freely around the lab, but that is not the case," says Jeff Garberson, a spokesman for Lawrence Livermore. "We do not allow uncleared visitors, whether they are U.S. citizens or foreign visitors, to have access to classified materials, regardless of those background checks."

At the center of all the fuss is the contentious issue of how to control access to scientific information that is unclassified but could potentially be put to military use. The three so-called "weapons labs" conduct a vast amount of unclassified research in addition to their military work, and consequently a constant stream of visitors flows through the labs for scientific meetings and discussions as part of the usual commerce of scientific exchange. These interactions are encouraged. Between January 1986 and September 1987—the period covered by the GAO investigation—6700 foreign nationals visited the three labs.

To help keep unclassified but potentially sensitive information from getting into the wrong hands, DOE requires that visits by scientists from Communist countries and certain other nations be put through an approval process that generally includes background checks on the individuals. Similar procedures are required for visits that may include discussions involving topics deemed particularly troublesome. DOE lists 18 such topics, including uranium enrichment, inertial confinement fusion, and semiconductor manufacturing technology.

The GAO investigation found that background checks were performed on only 6 of 176 visitors from Communist countries before the visits took place, 51 checks were not completed until the visits began or after they were over, and background checks were not performed at all on 119. Some of those visitors were subsequently found to be associated with intelligence agencies. In addition, GAO concluded that DOE failed to identify 37 visits that involved technologies on its sensitive list.

When asked at the hearing whether classified information has been lost because of these lapses, Keith O. Fultz, the GAO official who conducted the study, said he is not confident that it has not been. Garberson says, however, that the controls placed on the visitors while they were in the labs would have been sufficient to protect classified material.

The GAO investigators argued for an expansion of the sensitive technology list. John R. Schultze, one of the authors of the report, pointed to astrophysics because it involves reactions similar to those in nuclear weapons. That prompted Senator Jeff Bingaman (D–NM) to ask "are we getting into a situation where we are trying to limit so much we are unable to limit anything?" ■ **COLIN NORMAN**