risks posed by episodes such as the flooding after Hurricane Katrina (see page 1216).

Members of the science advisory board are unhappy with the tests that were carried out in the first days, when the city was still under water. Tests were done for many regulated chemicals, but those for more obvious threats, such as disease-causing microbes, were not. According to Granger Morgan, a technology policy expert at Carnegie Mellon University in Pittsburgh and chairman of the EPA science advisory board, the agency needs to prepare better plans for specific emergency situations, so that it can respond appropriately.

Most of the data currently being collected by the agency on the ground in New Orleans pertain only to short-term risks. Levels of metals or pesticides in the sediment left behind as the floodwater receded are being compared with exposures that are safe for a few days, or even less. People who want to find out whether the levels of contaminants near their homes are dangerous in the longer term will have to do their own research.

The agency can hardly be accused of sitting around twiddling its thumbs in New Orleans. It has more than 1,000 employees working in the ravaged track of the storm, and is doing its best to advise members of public about how best to protect themselves from contaminants. Hundreds of measurements have been carefully posted on its website (www.epa.gov/katrina). All of this has been done within the agency's existing and rather overstretched budget.

People are moving back into New Orleans now, pushing their way into mud-caked buildings, sleeping in rotting, oily houses, and scrubbing mould off the walls without wearing protection — or, in at least one case, with respirators gamely strapped on upside-down.

Naturally, the political pressure to repopulate the area is intense. There is nothing to suggest that the city should be declared uninhabitable. But the public deserves much more than statements such as one issued on 17 September, to the effect that neither the EPA nor the Centers for Disease Control and Prevention in Atlanta, Georgia, will come forward to offer any guidance on the reinhabitation of New Orleans.

"EPA needs to be prepared to assert its opinion and judgment on matters that impact human health and the environment, regardless of who else is involved."

As the EPA's own inspector-general declared in 2003: "EPA needs to be prepared to assert its opinion and judgment on matters that impact human health and the environment, regardless of who else is involved or may share responsibility. Ultimately, the public, Congress, and others expect EPA to monitor and resolve environmental issues." In the wake of Katrina, the need for the agency to fulfil that role is clearer than ever. ■

Free tips

The National Academies offers guidance to keep the United States internationally competitive.

Worthy reports are as frequently encountered in Washington DC as grand monuments — and are just as likely to be ignored by the locals. But lawmakers will fail their constituents if they manage to ignore the latest study on competitiveness by the National Academies.

The report, *Rising Above the Gathering Storm*, addresses resurgent fears that the United States' longstanding global leadership in research and development is on the wane. Written by a panel chaired by Norman Augustine, former chief executive of technology corporation Lockheed Martin, it offers several concrete recommendations designed to keep that leadership intact. Whether the US government pays any attention or not, its competitors will find the panel's findings well worth a look.

Whereas previous studies of this kind have focused primarily on research funding, this one concentrates much of its attention on improving the nation's scientific literacy. It calls for the annual recruitment of some 10,000 science and maths teachers, proposing that science undergraduates be lured into the classroom with generous scholarships, with the lofty goal of improving science education at school for some 10 million people.

This proposal may appear to some US politicians to be central planning run amok — and it doesn't really address the low pay and social standing of teachers in the United States. But it does have potential and precedent: an existing programme called Teach for America has succeeded in recruiting thousands of young college graduates to teach in the nation's most troubled neighbourhoods.

Other recommendations of note include a call for the creation of a new energy-research agency that would conduct low-cost, high-risk, high-reward research projects. This would be modelled on the Defense Advanced Research Projects Agency (DARPA), which has been highly successful in backing exciting, basic research that may spawn useful technology. Another new entity would be set up expressly to arrange for the construction of scientific facilities.

The academy panel also proposes radical changes in the treatment of young scientists in general, and foreign ones in particular. It suggests a new category of generous grants that would allow young researchers early in their career to firmly establish their own lines of enquiry. Furthermore, it calls for changes in US immigration policy that would make it easier for foreign students and scientists to stay in the country to continue their careers. Both these suggestions will require serious political commitment to implement — but they would go a long way towards fostering fresh scientific talent.

"Some of these suggestions will require serious political commitment to implement — but they would go a long way towards fostering fresh scientific talent."

Senators Lamar Alexander (Republican, Tennessee) and Jeff Bingaman (Democrat, New Mexico), who commissioned the study, must now try to drum up support on Capitol Hill for the implementation of its recommendations. They face an uphill battle, given the size of the US budget deficit and inevitable political resistance to such concepts as further federal involvement in school education. The United States' competitors, in Europe and the Far East, also need to consider such measures, and might actually find some of them easier to implement. ■