Panel Criticizes U.S. Effort on Nanomaterial Risks

By CORNELIA DEAN

In a sweeping critique made public Wednesday, an expert panel of the National Research Council said the federal government was not doing enough to identify potential health and environmental risks from engineered nanomaterials. It called for a sweeping new effort, involving key players in and out of government, to assess them.

Nanomaterials are engineered on the scale of a billionth of a meter, perhaps 1/10,000 the width of a human hair. They are turning up in a range of items including consumer products like toothpaste and tennis rackets and industrial products like degreasers or adhesives. But some experts say they may pose health or environmental risks. For example, researchers in Scotland reported this year that carbon nanotubes may pose the same health risks as asbestos.

“Industry wants to run with it,” said Andrew D. Maynard, chief science adviser to the Project on Emerging Nanotechnology at the Woodrow Wilson Institute, who was the chairman of the panel. But he added, “one of the big barriers at the moment is understanding how to use it safely.”

The panel analyzed the risk research strategy of the National Nanotechnology Initiative, the program to coordinate federal efforts in nanotechnology research and development. Its report concluded that the initiative’s strategy “does not present a vision, contain a clear set of goals, have a plan of action for how the goals are to be achieved, or describe mechanisms to review and evaluate funded research and assess whether progress has been achieved.”

The panel’s vice chairman, Martin Philbert, a toxicologist at the University of Michigan, said a better risk assessment method was crucial because “right now we have no good way of measuring how much of this material is in the environment and what form it is in without going to herculean efforts and using expensive equipment that is not easily deployed in the field.”

The panel was convened by the research council, the research arm of the National Academy of Sciences, at the request of the National Nanotechnology Coordination Office, which oversees the nanotechnology initiative. In a statement, the office said the report’s call for a broader national strategy was “a worthy goal” that the initiative was already pursuing. It said the panel’s recommendations would receive “careful and thorough analysis.”

Dr. Philbert said that assessing the risk of nanomaterials was crucial because the materials would not be accepted if people lacked confidence that they were safe.

The new report also says the nanotech initiative has not adequately considered the views of industries producing nanomaterials, consumer and environmental groups, and the regulatory actions of states,
localities and foreign countries. While its reports have been open to public comment, “public comment is not the same as engaging stakeholders in the process,” the panel wrote.

In a statement, an informal coalition of environmental and business organizations praised the report, saying that for three years they had been urging the federal government to do more to assess potential health and environmental effects of nanomaterials.

The coalition, whose members include the Environmental Defense Fund and the American Chemistry Council, said the Environmental Protection Agency should contract with the National Academy to develop and monitor a research strategy.