

## LETTERS

### Micromanaging DOE Labs from Washington

Readers should not think that Alan Burnham's description (January 1991, page 13) of bureaucracy and micromanagement from on high at Lawrence Livermore Laboratory reflects an isolated situation. The entire DOE weapons complex is embroiled in an endless process of procedure writing, documenting that the procedures will be followed, documenting that the DOE orders are obeyed, self-appraisals, self-assessments, "technical safety appraisals," MESH (Management, Environment, Safety and Health) team inspections, Tiger Team inspections and pre-inspections from all levels of DOE. We have become so obsessed with safety that we have become unable to do at all the jobs we are supposed to do safely. The answer to every perceived safety or environmental problem is to stop operations. Many DOE operations have shut down for this reason. The danger is that someday when we have to be productive, safety will be thrown to the winds, because we never learned to combine safety with getting something done.

In one instance an inspector visiting an experimental facility at a national laboratory reported a number of minor violations—such as a written procedure for a standard experiment that did not have a recent date, and a radiation self-monitoring instrument left on a  $\times 10$  setting (which doesn't affect the alarm point)—and concluded that these revealed a "casual attitude toward safety," the most damning accusation that can be made. In an atmosphere where one accusation carries more weight than a dozen explanations or denials, the facility management did not dare present its side of the matter, nor did the angry overseers in the Washington headquarters ask for it. Only after  $1\frac{1}{2}$  years of procedure writing and inspections did the management receive permission to resume operations.

Management at another facility, to avoid the remote possibility of creating "mixed waste," banned the use of mercury in the laboratory. It required mercury thermometers to be removed from the drawers and mer-

cury barometers to be taken off the walls. Both were then sent to a hazardous-waste disposal facility.

Really, we need to recover some faith that we know what we are doing, and that each minor mistake is not the end of the world.

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### GRE: Pointers and Another Pan

Recently a letter appeared in *PHYSICS TODAY* (January 1991, page 97) from a student who felt that his graduate school prospects had been injured by the Graduate Record Exam in physics. As members of the current committee for the GRE physics test, we feel it might be worthwhile to reiterate some basic points.

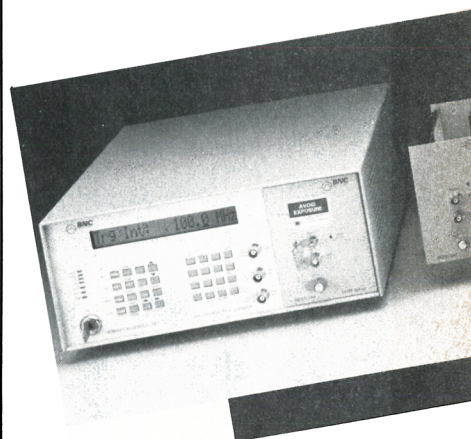
No one would claim that the score on a single exam should be used as the sole predictor of graduate school success, and indeed the schools that use the GRE scores do so as only one component of the admission process. However, a uniform test is one way to compare the physics knowledge of students from vastly disparate places. For example, it gives students from less-well-known undergraduate institutions an opportunity to be evaluated on the same basis as other students.

One can always argue that the type of test or its content might be different. Changes of this nature are frequently discussed at our committee meetings. There are some drawbacks no matter what the format of the exam. For instance, a hand-scored exam would include fewer problems and would be less likely to measure the breadth of a student's training. In addition, a hand-scored test would cost much more than the present, machine-scored version. (The Advanced Placement physics test for high school students, which has some hand scoring, now costs almost twice as much as the GRE physics test.) This would be a severe problem for foreign students, who often have great difficulty paying the current exam fee. For the immediate future, no great change in the format is contemplated.

Having said this, there *are* ways for students to prepare for the GRE

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