

regarding the design and operation of nuclear weapons and associated use control features; (7) positions within the Office of Independent Oversight and Performance Assurance, or any successor thereto, involved in inspection and assessment of safeguards and security functions, including cyber security, of the Department; (8) positions within the Office of Security and Emergency Operations, or any successor thereto * * * This list reflects, but is not restricted to, the positions listed in section 3154 of the NDAA for FY 2000. Consistent with section 3152 of the NDAA for FY 2002, DOE proposes to retain these eight position categories because in each category there are individuals who possess or have routine access to classified data, material, or information that would likely be targeted for acquisition by foreign powers. DOE has not reached a firm conclusion that all the position categories on the list should be retained, or that all should be retained in their current form, but it believes that a sufficient basis for their retention exists that it is not prepared to propose the modification or removal of any at this time. DOE accordingly particularly invites comment on the question whether the list, or any of the position categories on the list, is overinclusive or underinclusive, and if so, how and on what basis the list, or any of the position categories on the list, should be modified.

The list of position categories in 10 CFR 709.4(a) also includes two categories of individuals who volunteer for polygraph examinations. There is a category of applicants for employment who opt for the Accelerated Access Authorization Program (AAP) (10 CFR 709.4(a)(9)). These applicants choose to be polygraphed in order to obtain expedited interim "Q" clearances pending completion of field investigations. There is also a category composed of incumbent employees who volunteer for so-called exculpatory polygraph examinations to resolve questions that have arisen in the context of counterintelligence investigations or personnel security issues (10 CFR 709.4(a)(10)).

The NAS Polygraph Review examined the scientific evidence with regard to the validity of polygraph examinations used for the screening of applicants for employment and incumbent employees, as well as for specific-event investigations (which include what DOE calls "exculpatory polygraph examinations"). The NAS pointed out that the available scientific evidence is generally of low quality and consisted of 57 studies of which 53 are specific-

event investigations and four are flawed studies of employee screening. While noting that the available empirical research has not established the underlying factors that produce the physiological responses observed during polygraph examinations, and that generalizing from such responses in research settings to real world settings is hazardous, the NAS nevertheless concluded that " * * * specific-incident polygraph tests discriminate lying from truth telling at rates well above chance, though well below perfection * * *" (NAS Polygraph Review at p. 3). DOE is inclined to accept this conclusion with regard to exculpatory polygraph examinations under 10 CFR 709.4(a)(10), but given the limitations of the tool, DOE does not treat the results of such examinations as conclusive as to truthfulness or mendacity. Accordingly, DOE may follow up an exculpatory polygraph result with additional investigative activities if DOE considers that action appropriate. DOE does not now contemplate any change in this policy.

With regard to polygraph examinations for employee screening under 10 CFR part 709, the NAS takes a significantly different view. Against the background of what it acknowledges is very sparse evidence, the NAS is dubious about both the *validity* and the *advisability* of such examinations.

Validity. According to the NAS, the proportion of the employee population at DOE that poses a major national security threat (presumably including threats to classified information) is extremely low. In the NAS's view, screening in a population with a very low rate of target transgressions will necessarily yield, as a function of how sensitively the polygraph test is set, either a large number of false positives or a large of false negatives (NAS Polygraph Review at 4, 2-4 through 2-7, 2-20 through 2-21, and 7-2 through 7-4). On that basis, the NAS concludes that polygraph examinations are too inaccurate to be used for employee screening. (NAS Polygraph Review, p.4.)

In reaching its negative conclusion, the NAS acknowledged that a screening polygraph, even if set to reduce the number of false positives, will identify true positives who are being deceptive. Accordingly, DOE does not believe that the issues that the NAS has raised about the polygraph's accuracy are sufficient to warrant a decision by DOE to abandon it as a screening tool. Doing so would mean that DOE would be giving up a tool that, while far from perfect, will help identify some individuals who should not be given access to classified data, materials, or information. DOE

does not believe wholesale abandonment of a tool that has some admitted value for that purpose can be squared with Congress's overall direction to implement a polygraph program whose purpose is " * * * to minimize the potential for release or disclosure of classified data, materials, or information."

Advisability. The NAS's main conclusion is that lack of evidence of validity and accuracy justifies not using polygraph examinations for screening purposes. In arriving at this conclusion, the NAS also took into account the expense associated with invalid polygraph results, the potential loss of competent or highly skilled individuals due to false positives or the fear of such a test result, and claims of adverse impact on civil liberties. The NAS also acknowledged but considered less significant the deterrent effect that the prospect of being polygraphed could have on employment applicants who are national security risks. In short, what NAS conducted was a cost-benefit analysis that (given the nature of the costs and benefits) inevitably rested in no small part on value judgments made by the NAS. There is nothing inappropriate about this approach in light of the NAS's mission and charge.

DOE, however, has a significantly different mission—one that is intimately involved in science, but directed to a particular end—the national security of the United States; therefore, not surprisingly, section 3152 gave the Department a particular charge for its polygraph program. That charge was not to devise a program based on the NAS's or the Department's own weighing of costs and benefits based on its own value judgments. Rather, Congress directed DOE to develop a polygraph program focused on minimizing the risk of release or disclosure of classified information. That amounts to a Congressional specification that the most important cost about which DOE should be concerned is the risk of release or disclosure of classified information. DOE believes that Congress's judgment in that regard was reasonable. Given that DOE's classified information consists in significant measure of information regarding nuclear weapons of mass destruction, the consequences of compromise of that information can be profoundly significant. Those consequences make it sensible for Congress to conclude that DOE's priority should be on deterrence and detection of potential security risks with a secondary priority of mitigating the consequences of false positives and false negatives. Moreover, whatever may be the importance of other