

Withdrawal/Redaction Sheet

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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. fax	Charlie to Jill Pizzuto re: SSN and DOB [partial] (1 page)	06/03/1996	b(6)

COLLECTION:

Clinton Presidential Records
Domestic Policy Council
Elizabeth Drye
OA/Box Number: 10453

FOLDER TITLE:

NSPE [National Society of Professional Engineers] Briefing

2014-0046-S

rc1380

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
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P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

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PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).

RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

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b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]



UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899-0001
OFFICE OF THE DIRECTOR

Arati Prabhakar
Director
National Institute of Standards and Technology

Arati Prabhakar was appointed the tenth Director of NIST by President Clinton and took office in May 1993. An agency of the Commerce Department's Technology Administration, NIST promotes U.S. economic growth by working with industry to develop and apply technology, measurements, and standards. As NIST Director, Dr. Prabhakar oversees a staff of approximately 3,300 and a budget of nearly \$810 million. In addition, she chairs the Committee on Applications and Technology of the Information Infrastructure Task Force.

Previously, Dr. Prabhakar served for two years as Director of the Microelectronics Technology Office in the Defense Department's Advanced Research Projects Agency (ARPA), where she had managed advanced electronics research since 1986. From 1984 to 1986, Dr. Prabhakar served as a Congressional Fellow in the Office of Technology Assessment.

Dr. Prabhakar is a senior member of the Institute of Electrical and Electronics Engineers and a member of the American Physical Society. She received her B.S. in Electrical Engineering from Texas Tech University (1979), and her M.S. in Electrical Engineering (1980) and Ph.D. in Applied Physics (1984) from the California Institute of Technology.

5/96

NIST

JOSEPH BORDOGNA is National Science Foundation Assistant Director for Engineering (ENG). He is responsible for six research and education divisions: Bioengineering and Environmental Systems; Chemical and Transport Systems; Civil and Mechanical Systems; Design, Manufacture and Industrial Innovation; Electrical and Communications Systems; and Engineering Education and Centers. He also oversees the SBIR program at NSF.

He received the B.S.E.E. and Ph.D. degrees from the University of Pennsylvania and the S.M. degree from the Massachusetts Institute of Technology. As well as his assignment at NSF, his career includes experience as a line officer in the U.S. Navy, a practicing engineer in industry, and a professor.

Complementing his NSF duties, he has chaired Committees on Manufacturing, Automotive Technologies, and Environmental Technologies in the National Science and Technology Council, is a member of the U.S.-Japan Joint Optoelectronics Project, and served on the Technology Reinvestment Project (TRP) team.

Prior to appointment at NSF, he served at the University of Pennsylvania as Alfred Fittler Moore Professor of Engineering, Director of The Moore School of Electrical Engineering, Dean of the School of Engineering and Applied Science, and resident Faculty Master of Stouffer College House, a living-learning student residence at the University. While dean, he participated as a member of the Governor's team which developed the Ben Franklin Partnership, the State of Pennsylvania's technology deployment initiative.

He has made contributions to the engineering profession in a variety of areas including optical and radio communications, electro-optic recording materials, holographic television playback systems, and was awarded a commendation as Operations Officer of the Flagship of the naval unit which effected the first spacecraft recovery at sea. He was a founder of PRIME (Philadelphia Regional Introduction for Minorities to Engineering) and served on the Board of The Philadelphia Partnership for Education, community coalitions providing, respectively, supportive academic programs for K-12 students and teachers.

He is a Fellow of the American Association for the Advancement of Science (AAAS), the American Society for Engineering Education (ASEE), and the Institute of Electrical and Electronics Engineers (IEEE). He served on the President's Committee on the National Medal of Science, is a recipient of the George Westinghouse National Award of ASEE for distinguished contributions to teaching, and was named Engineer of the Year in the Greater Philadelphia Region in 1984. He was named to the ASEE Hall of Fame of Engineering Educators in 1993 (one of 40 in past 100 years) and received the American Industrial Modernization Leadership Award of the National Coalition for Advanced Manufacturing in 1993 and the Chairman's Award of the American Association of Engineering Societies in 1994 for national engineering leadership.

DONALD ARBUCKLE

Don Arbuckle has worked at OMB's Office of Administration and Regulatory Affairs since it was established in 1981 and was appointed Deputy Administrator in January 1996. He has served as a desk officer for transportation and EPA regulatory programs, and as deputy branch chief for OIRA's Commerce and Lands Branch, analyzing regulatory and information policy for the Departments of Agriculture, Commerce, Interior, State, Transportation, and other agencies. More recently, he served as Senior Assistant to the OIRA Administrator, Sally Katzen, helping implement Executive Order No. 12866, "Regulatory Planning and Review," acting as OIRA liaison to the Vice President's National Performance Review, and coordinating the Administration's Regulatory Working Group.

Before coming to OMB, Don worked for two years at the National Transportation Safety Board. Prior to that, between 1977 and 1979, he helped establish and administer a short-lived American Studies program in Iran -- good idea, bad timing. He was an undergraduate at Harvard College and has a masters degree and Ph.D. from the University of Pennsylvania.

Carol Hampton Rasco

Assistant to the President for Domestic Policy

Carol Hampton Rasco serves as President Clinton's top domestic policy advisor at the White House.

In this role, Carol directs the President's Domestic Policy Council, which consists of Cabinet Secretaries and heads of domestic agencies, and is responsible for helping to shape, implement and articulate the President's domestic policy agenda. In addition, Carol monitors the legislative process and implementation of initiatives.

Carol is a native Arkansan who worked as President's Clinton's chief policy advisor in the Arkansas Governor's office for ten years, serving as his Senior Executive Assistant. From 1985 through 1992, she was Governor Clinton's liaison to the National Governor's Association, while he served as chairman as well as lead Governor on welfare reform, child care and health care reform.

Carol received a bachelor's degree from the University of Arkansas and earned a masters' from the University of Central Arkansas. She has taught in the public school system and worked as a middle school counselor.

Prior to joining Governor Clinton's staff in 1983, Carol worked extensively as a volunteer in Arkansas with arts organizations, disability advocacy groups and the United Methodist Church.

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
WHITE HOUSE BRIEFING
HOSTED BY THE DOMESTIC POLICY COUNCIL
WEDNESDAY, JUNE 5, 1996
OEOB Room 472
1:30 - 3:00 p.m.

AGENDA

- | | |
|-----------|---|
| 1:30 | Carol H. Rasco, Assistant to the President for Domestic Policy |
| 1:35-2:00 | Don Arbuckle, Deputy Administrator, Office of Information and Regulatory Affairs in the Office of Management and Budget |
| 2:00-2:30 | Arati Prabhakar, Director, NIST |
| 2:30-3:00 | Dr. Joseph Bordogna, Assistant Director for Engineering, National Science Foundation |

Sally Katzen OEOB, Rm 350
Asst. Phillips

Arati Prabhaker, fax: 301-869-8972

Dr. Joseph Bordogna, fax: 703-306-0289

Carol Acknowledges - Al Miller

- President Clyde Tipton

^ President Jack Hinton

Incoming Verify

Old and new
AL is incoming
Chairman - Prof.
Engineers in
Private Practice

Withdrawal/Redaction Marker

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**National Society of
Professional Engineers**

FACSIMILE COVER SHEET

TO:

Jill Pizzuto

Office of Domestic Policy
The White House

COMPANY:

FAX NUMBER:

202/456-6687

DATE:

June 3, 1996

TIME:

8 am

TOTAL NUMBER OF PAGES (including cover page):

NSPE CONTACT:

Charlie Campbell

Phone: 703/684-2874

MESSAGE:

RE: Our June 5th Briefing

Jill:

We finally received the information on Eldo W. Schornhorst. His date of birth is (b)(6) and Social Security number is: (b)(6). Let me know if there is a problem on getting him cleared. We are assuming Scot Patterson is not coming. [00]

I am assuming we are still in Room 472, and that there has been no change in the scheduled briefers.

Will the participants receive the usual White House folders with bio info on briefers, etc.?

I'm looking forward to our Briefing on Wednesday, and hope I will get to meet you.

P.S. Would it be helpful for Carol to have a list of titles for our participants?

4400 NINE STREET

ALEXANDRIA, VIRGINIA 22314

703 • 684 • 2880 FAX 703 • 636 • 4875

E X E C U T I V E O F F I C E O F T H E P R E S I D E N T

29-May-1996 11:25pm

TO: Elizabeth E. Drye
FROM: Carol H. Rasco
 Domestic Policy Council
CC: Jill Pizzuto
SUBJECT: See attached call to return

Bill (Willlliam Robinson) is a very good friend of POTUS and myself in Little Rock. I've done national conference speeches for him, we had him to WH Conf on Youth and Violence, did an At the Table at his church in LR, etc.

Please have this call returned on Thursday if possible and then someone should get the answer(s) from approp. places in Admin. and put on the answers to me before we call him with answer(s).

Thanks so much.

E X E C U T I V E O F F I C E O F T H E P R E S I D E N T

29-May-1996 04:45pm

TO: Carol H. Rasco

FROM: Jill Pizzuto
Domestic Policy Council

SUBJECT: another call

Carol:

Rev. William Robinson from LR called: 501-663-9621

he would like to try and find out if funding for a particular program has been cut? It has something to do w/ the Women's Recovery Center (WCRC/ADAP) in AR -- something about funds for community development programs.

In any case, I did mention that you are currently travelling and wouldn't be back in the office until next week, that I'd pass on this message to you and depending on your workload as you're on the road, either you would call upon your return or someone else would get back to him.

let me know if you'd like me to pass to a staffer?

THE WHITE HOUSE

WASHINGTON

May 29, 1996

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: JOHN H. GIBBONS  AND ALICE M. RIVLIN 

SUBJECT: FY 1998 Research and Development (R&D) Priorities and Data Collection Process

Attached you will find two documents. The first document (Attachment 1) presents the FY 1998 R&D priorities developed by the National Science and Technology Council (NSTC). Using these priorities and the NSTC Strategic Plans as guides, agencies are expected to examine their base programs carefully and to redirect R&D funds into high priority areas consistent with overall budget constraints provided by OMB and given the agency's role in the overall Federal R&D effort. Our efforts over the past two years have resulted in a positive outcome for the overall Federal S&T budget. Therefore, it is important that we work together to continue to present a focused R&D budget during what promises to be an even more challenging budget season than last year's.

The second document (Attachment 2) outlines how R&D data will be collected in FY 1998. We believe we can continue to improve upon the R&D data collection process while continuing to keep the amount of data collected to a reasonable level.

We would like to thank you for your participation in the NSTC process and look forward to receiving your R&D budgets this fall. If you have questions regarding either one of these attachments, please contact Angela Phillips Diaz in OSTP (Phone: 202-456-6100/Internet: APhillip@OSTP.EOP.GOV) or Jack Fellows in OMB (Phone: 202-395-3935/Internet: Fellows_J@A1.EOP.GOV).

Attachments

FY 1998 RESEARCH AND DEVELOPMENT (R&D) PRIORITIES

The following R&D priorities were developed by the National Science and Technology Council (NSTC). Using these priorities and the NSTC Strategic Plans as guides, agencies are expected to examine their base programs carefully and to redirect ~~\$\$\$~~ funds into high priority areas, within the overall budget constraints provided by OMB and the decisions made through the National Performance Review Phase-II process.

Defining the Federal R&D Role

Advances in science and technology drive economic growth and job creation, while protecting the environment and our quality of life. Investments in science and technology (S&T), when well connected to other segments of society and the commercial marketplace, provide a foundation that can facilitate advances in health care, expand opportunities for human communication, create new opportunities for learning throughout a person's career, prevent environmental and occupational hazards, enhance national security in a turbulent world, and enable innovations that can build a vibrant economy and an improving quality of life. The Administration places particular emphasis on investments that produce well educated citizens and secure, well-paying jobs.

The Federal government invests in S&T in nonmarket areas such as national defense and world-class fundamental scientific research. Government investments are also vital in promoting technologies critical to economic growth and job creation when there is little likelihood of sufficient private research investment --for example, when societal rates of return are very promising, but private rates of return are not sufficiently attractive to interest industrial firms.

The Federal government is uniquely capable of fostering the international cooperation essential to confront common global threats, realize common goals in advancing fundamental science, and promote global stability and sustainable development. Agencies should develop collaborative efforts that contribute to domestic missions and leverage international intellectual and financial resources while addressing the common global good.

FY 1998 Goals and Principles

Specific R&D priorities for FY 1998 will be focused around the six key goals cited in FY 1996 and FY 1997:

1. Maintain World Leadership in Science, Engineering, and Mathematics;
2. Promote Long-term Economic Growth that Creates Jobs;
3. Sustain a Healthy, Educated Citizenry;
4. Improve Environmental Quality;
5. Harness Information Technology; and
6. Enhance National Security.

These goals are not entirely independent. For example, information technology certainly promotes economic growth and creates jobs. The descriptions that follow place priority areas under only one goal for conciseness.

In the interest of maintaining excellence, maximizing effectiveness, and minimizing Federal costs, priority should be given to Federal research and education programs that:

- are peer reviewed and selected through a merit-based competitive process;
- are funded jointly through industry, university, or State partnerships. Examples include: programs oriented toward generic and pre-competitive technology development; programs that provide the opportunity to experiment with and implement best practices for standards-based science, mathematics, and technology education; and international partnerships in areas where S&T programs require extensive coordination or expensive facilities;
- support multiple goals and promise high social rates of return. Examples include: improving the environment while helping American businesses compete internationally; ensuring national security while contributing to a strong technical base in civilian businesses; or coupling research, education and training to strengthen the technical literacy of our diverse workforce;
- establish and use quantitative and qualitative indicators, as appropriate, to provide realistic and objective measures of progress and performance; and
- improve interactions with States to enable technology development.

FY 1998 R&D Priorities

Goal 1: Maintain World Leadership in Science, Engineering, and Mathematics

Scientific expertise is increasingly becoming an international enterprise. The Federal government has an essential mission in ensuring U.S. leadership across the frontiers of scientific knowledge, as clearly articulated in the Clinton/Gore document *Science in the National Interest*. This science base forms the foundation for all practical technical advances. Public investment in fundamental research -- both in the domestic sphere and increasingly in international collaborations -- generates returns from both the direct contributions to knowledge and the education of future scientists and engineers. Scientific inquiry is embedded throughout the complex and interactive web of discovery and practical invention. Advances in scientific understanding for the basis of new technological achievements; advances in technologies, in turn, enable and stimulate the search for fundamental knowledge.

Agencies should assign a high priority to maintaining research support at academic institutions.

Specific priorities should be given to projects or programs that:

- are based on merit review with peer evaluation,
- support education and training at all levels of the next generation of scientists, engineers and mathematicians,
- strengthen the physical and information infrastructure of fundamental research at universities, laboratories, and industry and ensure adequate utilization of existing equipment,
- provide access to unique national and international facilities for the highest quality peer-reviewed research.

Goal 2: Promote Long-term Economic Growth that Creates Jobs

Public sector R&D for this purpose can be given priority only for projects and programs that clearly demonstrate that (i) private sector firms cannot accommodate individually the technical or financial risks, but are available for a significant share of the collective investment; and (ii) major public benefits will accrue in areas such as national security, the economy, public health, the environment, education and training, or safety.

Priorities for FY 1998 include research that supports the development of:

- Competitive, cost-shared R&D partnerships such as the Advanced Technology Program, and other cost-shared agreements among industry, Federal laboratories, and universities that focus on long-term R&D opportunities with guidance from industry. Partnerships should focus on R&D in areas such as manufacturing sciences that aims at enhanced competitiveness for U.S. industry.
- Technologies that advance the competitive position of U.S. industry while achieving breakthroughs in improving efficiency of resource use, protecting the environment, and enhancing safety. Specific priorities include partnerships for (i) a new generation automobile, (ii) advanced construction and building technologies, (iii) electronics manufacturing, (iv) new health diagnostic and therapeutic technologies, (v) advanced biotechnologies, (vi) advanced energy conversion technologies especially natural gas, biomass and other renewable energy resources, (vii) advanced launch vehicles, and (viii) technologies leading to improved energy and resource efficiency.
- Technologies that improve the efficiency of the U.S. transportation system while advancing safety and environmental quality. Specific priorities include (i) improved system assessment tools, (ii) advanced materials, monitoring, inspection, and other technologies for improved physical infrastructure, (iii) technologies for advancing the communications and information infrastructure for all transportation modes, and (iv) better understanding of human performance and behavior for incorporation in system design and operation for all transportation modes.
- A new generation of affordable, efficient civilian aircraft and air traffic technologies that will reduce costs, improve safety, and reduce environmental impacts.
- Technologies constituting an advanced manufacturing infrastructure.

Goal 3: Sustain a Healthy, Educated Citizenry

Promoting health and investing in human capital are key components of the Federal S&T enterprise. The Federal role is to: further the understanding of complex biological, behavioral, and other human processes; invest in cost-effective methods which can avert health problems before costly remedies are needed; and coordinate and focus Federal efforts in education and training so that they become a powerful force in helping Americans meet the challenges of the 21st century.

Consistent with this Federal role, priorities for FY 1998 include R&D in support of:

- Strengthening health, safety, and food data and information systems including those used for biomedical research; worker health and safety; strengthening worldwide disease surveillance, food safety and production; and monitoring the nation's health, nutrition, and safety;
- Enhancing productivity through understanding the processes that shape human intellectual, physical and emotional capacities and supporting research on the etiology and prevention of childhood and adolescent behaviors that involve risk
- Developing technologies to assure the safety and quality of food for consumers, by providing a scientific foundation for sound food-safety policy, innovations in food production to increase safety, and consumer education to improve food safety practices
- Promoting health and preventing disease and injury by investigating socioeconomic, behavioral, biomechanical, biomedical, and public health factors influencing health and by improving, developing, and by standardizing methods for assessing exposures in the home, school, workplace, and the environment;
- Optimizing health and productivity and reducing the risk of diet-related diseases through initiatives to apply new techniques of molecular biology to understanding the role diet plays in health and to stimulate healthy food, nutrition, and physical activity behaviors
- Preventing, monitoring and treating new and re-emerging infectious diseases on a global scale, in close cooperation with States, other nations and international organizations. This includes:
 - promoting biomedical research to identify infectious agents;
 - developing innovative tools (e.g., diagnostics, drugs and vaccines) and systems (e.g., information networks) for detection and control;
 - studying population risk factors and environmental conditions that favor the emergence of disease-causing microbes.

Goal 3: Sustain a Healthy, Educated Citizenry (continued)

- Developing technologies that lead to enhanced food quality, international food security, improved nutrition and industrial products based on agriculture, including increased agricultural productivity, ecologically sustainable practices, documentation and preservation of the genetic resources of economic plants and animals and improving food preservation, storage and distribution.
- Demonstrating innovative technology and networking applications that ensure all Americans access to quality education and training tailored to their individual learning and workplace needs, with priority for reaching disadvantaged and underserved populations and communities.
- Developing new models for evaluating learning and learning productivity; developing high quality, affordable learning tools and environments including demonstration of ways that advanced simulation and networking and enhanced human interface technologies can raise learning productivity for all Americans; and researching learning and cognitive processes
- Developing and designing new models of teacher training and professional development that incorporate and support the new ways of teaching and learning at all levels (pre-school through adult).
- Utilizing technology and formulating effective approaches to comprehensive, system-wide reform of K-12 in all academic subject areas, in particular science, mathematics and technology education, that are grounded on appropriate standards for teaching, curriculum and assessment.

Goal 4: Improve Environmental Quality

Improving environmental quality requires supporting a broad and comprehensive research agenda, including observing, documenting, understanding, assessing and predicting environmental change and its consequences; using natural resources in a sustainable manner; understanding and preserving biodiversity; and developing analytical tools that integrate social, economic and natural sciences to support policy formulation.

Agencies are expected to continue strong support for a number of ongoing interagency programs and initiatives that are priorities for FY 1998. Agencies should closely coordinate preparation of the FY 1998 budgets in these areas prior to their initial submission to OMB:

- U.S. Global Change Research Program, with increased emphasis on consequences of changes on humans and ecosystems, particularly at regional levels;
- North American Research Strategy for Tropospheric Ozone;
- National Environmental Monitoring and Research Initiative;
- Natural Disaster Reduction (including the Hazard Information and Loss Reduction Initiative) with enhanced use of international cooperation in science and technology to reduce the damage to communities caused by natural disasters through improved monitoring, mitigation, and response;
- Environmental Technologies, with an emphasis on energy efficiency R&D and low CO₂ emissions.
- Endocrine disruptor research;
- Social and economic aspects of environmental change.

Goal 5: Harness Information Technology

The Administration is committed to harnessing information technology for improving the quality of life, increasing learning opportunities, promoting economic growth, safeguarding national security, protecting the environment, and maintaining world leadership in science, engineering, and mathematics.

Federal investment in scientific computing technology has made simulation and modeling effective tools for science and engineering. The Federal government is working with industry to develop the National Information Infrastructure (NII). Building on the successes of the High Performance Computing and Communications program, Federal research will help develop the technological foundations which will support high performance computing applications and enable the NII that the U.S. will need for the 21st century as well as accelerate the implementation of the Global-Scale Information Infrastructure.

While the private sector will build and run the Information Infrastructure, the Federal government has a number of important roles to play, including the funding of computing and communications research in our universities, Federal laboratories, and companies. Indeed, one of the reasons the U.S. is predominant in so many aspects of information technology is because of the funds that the Federal government invests in research in this area and because of the close cooperation between researchers in government, industry, and academia.

Priorities for FY 1998 include research that supports:

- Advanced research and development for very high performance computing and communications with emphasis in the areas of scalable systems, including software, storage, computing, and networking technologies for a broad set of high performance applications.
- Advanced high speed communications for 21st century networking including advanced collaboratory infrastructure that supports data, imagery, video, voice and application driven wide-area distributed processing.
- High Confidence computing and communications systems capable of ensuring the availability, reliability, integrity, survivability, confidentiality, security, and privacy of modern information systems and networks.
- Human Computer Integration technologies that enable an increasingly diverse user population more "user-friendly", efficient access to a wide range of applications. This evolving new technology will play a transforming role in scientific experimentation, and an increasingly important role in education and training.

Goal 5: Harness Information Technology (continued)

- Distributed Environment technology will enable applications and systems to interact in real time in increasingly realistic ways separated over large distances. Applications built from this technology will play a fundamental role in enterprise and educational restructuring in future distributed environments of the evolving information infrastructure.
- Advanced information technology applications, derived from agency missions, that accelerate the development, demonstration and validation of digitally-based tools such as simulation, advanced visualization, and collaborative environments which complement private sector R&D are encouraged across all programs.

Goal 6: Enhance National Security

The defense of the United States and the protection of American interests abroad are fundamental responsibilities of the Federal government. To achieve these, the President has outlined his priorities in the national security report, *A National Security Strategy of Engagement and Enlargement*. This strategy has three principal components: (1) enhancing our security; (2) promoting prosperity at home; and (3) promoting democracy. The *National Security Science and Technology Strategy* supports all three of these components.

Specific S&T priorities for FY 1998 include:

- S&T to sustain the superior warfighting capabilities of the U.S. armed forces.
- S&T directed toward:
 - controlling arms, stemming the proliferation and combating the spread and use of weapons of mass destruction and delivery systems.
 - ensuring the safety, reliability and stewardship of the U.S. nuclear weapons stockpile.
 - monitoring and verifying arms control and treaty agreements.
 - developing strong intelligence capabilities for accurate and timely support to warfighters and policy makers.
- Dual-use programs which enhance the vitality, competitiveness, and responsiveness of America's industrial base so that it can serve military and civilian needs symbiotically -- particularly areas that further the goals of leadership in science, engineering and mathematics; a healthy and educated citizenry; improved environmental quality; and, harnessing information technology.
- International S&T cooperation that fosters global stability, enlarges markets for U.S. goods and services, and addresses global problems such as emerging infectious diseases that might threaten forces or present long term security threats .

FY 1998 R&D Data Collection and Crosscut Instructions

The purpose of this section is to provide your agency with R&D data collection guidance for FY 1998.

Traditional R&D and Technology Transfer Data Collection

In 1994, traditional macro R&D data (i.e., basic, applied, development, merit review, university support, tech transfer, etc.) were collected through OMB's Circular A-11 Exhibit 44 both in September and December. Basic, applied, and development R&D data were also collected through OMB's MAX budget Schedule C data base in December, resulting in a total of three collections. In 1995, we attempted to collect R&D data only once. OMB's MAX budget Schedule C data base R&D categories were expanded to include all the Exhibit 44 R&D categories, and this data was collected only once at the end of the FY 1997 process. The separate Exhibit 44 data collection has been dropped. This same process will be followed for the FY 1998 process. See the revision of A-11 for details (due out in mid-Summer 1996). Inherent in the success of NSTC data collection is the close collaboration between agency budget and program offices and communication throughout the FY 1998 budget cycle.

NSTC Interagency Crosscut Data Collection

In addition to the macro R&D data mentioned above, specific NSTC crosscuts were also collected last year. Roughly the same crosscut categories will be collected in FY 1998, but this data will be submitted to OMB by agency budget offices as part of the normal budget process, not through NSTC committees. This data will be reported by agency program only, not by scientific or technology themes. This should make the process much easier for the agencies. This data collection will follow the goals, principles, products, and timeline outlined below.

List of FY 1998 NSTC Crosscuts.

The following eight initiatives are the formal NSTC crosscuts for FY 1998. With technology changing every year, the NSTC Committees indicated below shall be responsible for defining and updating the appropriate interpretation of the crosscut through respective agency representatives. These crosscuts are consistent with the categories collected last year. Thus, agency staffs should be familiar with the crosscut definitions. If you have a question on a crosscut definition, you should consult with your agency's representative for the particular crosscut. Committees may conduct informal crosscut reviews in other areas, but they should not require input through agency budget offices or OMB and will not be part of the FY 1998 budget process.

1. Technology Learning Challenge (Education & Training)
2. Partnership for a New Generation of Vehicles (Civilian Industrial Technology)
3. Construction and Building (Civilian Industrial Technology)
4. Information Infrastructure for Transportation (Transportation R&D)
5. High Performance Computing and Communications (Information & Communications)
6. Environment and Natural Resources^a (Environment & Natural Resources)
7. Fundamental Science (Fundamental Science)
8. Emerging Infectious Disease (International Science & Engineering Technology)

a As was done in previous years, the Environment and Natural Resources crosscut must include the U.S. Global Change Research Program (required by law)

FY 1998 NSTC Data Collection Goals and Principles

The following principles that were established for FY 1997 to improve the NSTC data collection process will be retained for FY 1998:

- The NSTC will focus primarily on examining the objective, quality, and outcome of R&D investments (i.e., federal role, merit, policy relevance, duplication, performance, etc.). These are more relevant metrics than a percentage increase over the previous year's funding level.
- NSTC crosscut data must be traceable in the budget. This data will consist of simple tables, prepared by agency budget offices, listing agency contributions by agency program names, not by scientific or technological themes.
- NSTC review of agency contributions to a crosscut area must be comprehensive (i.e., they should not just focus exclusively on "new" funding requests but should include all ongoing and proposed activities).

- Double counting between crosscut areas is permissible, even encouraged when it illustrates multiple use of research investments. However, if you double count, it must be identified.
- Budget data will be collected later in the process when the estimates are more reliable.

FY 1998 R&D Crosscut Products and Timeline

The following are the products that should be developed during the FY 1998 budget process and the approximate dates when they are due:

- NSTC Committee Discussions (Late Spring-Late Summer). Prior to the September agency budget submission to OMB, agency representatives involved in the various NSTC crosscuts should begin meeting in their respective NSTC committees to refine the definitions and framework for the crosscut (e.g., discuss the crosscut goals, the appropriate Federal role in the crosscut, how agency programs can best contribute to the crosscut, how they map into the crosscut science/technology themes, how progress and performance can be measured, and identify the highest priority research areas within the crosscut). These discussions will not involve the collection of data (beyond informal exchanges between agency representatives) or involve the agency budget offices. Agency representatives will need to be engaged in these general discussions to assist the budget offices in creating the Agency Crosscut Tables (see below).
- Agency Crosscut Tables (Provided with FY 1998 Budget Submittal to OMB). Agencies which participate in NSTC crosscuts must provide a list of the agency programs that contribute to each NSTC crosscut as part of the FY 1997 budget submittal to OMB (see format in Appendix 1). These tables should be easily separated from the budget submission and copied for distribution to the relevant NSTC committees. These tables should make the crosscut contribution traceable in the budget process. Note that agency budget offices are only being asked to provide a list of agency programs, not how the agency programs map into any scientific or technology themes within a crosscut. Agency representatives in the various crosscut areas should be able to assist the agency budget offices with the crosscut definitions and framework based on the NSTC Committee discussions mentioned above. These Tables represent the agencies' official positions on what they are contributing to each crosscut and thus must be approved by the agency budget office. NSTC Committees must use this data for their analysis. Thus, it is incumbent on both the agency representatives on the various crosscuts and the agency budget office staff to ensure that these tables are correct.

For the Fundamental Science crosscut, agencies must provide a list of programs that make up their total R&D investments. Agencies can use their current breakdown of R&D by program or the Agency Crosscut Table. This is not intended to create new work for the agency. In either case, the listing must be part of the FY 1998 budget submission to OMB and be easily detachable so it can be distributed to the NSTC.

- NSTC Review Report of Agency Crosscuts (September). The Agency Crosscut Tables will be distributed to relevant NSTC committees by OSTP. The agency representatives can provide additional information to clarify the programs listed in the Tables but the agency representative and the NSTC Committees are not at liberty to change the agency contributions in these Tables. They represent the agencies' official positions on the crosscuts. Any changes must be agreed to by OMB and the agency budget office. NSTC Committees will provide OSTP with brief assessments of the FY 1998 crosscuts (see format in Appendix 2) and how the agency program contributions map on the crosscut's scientific or technology themes.
- OSTP Assessment Report of FY 1998 R&D Agency Programs and Interagency Crosscuts (Late September-Early October). OSTP's assessment report will be based on review of agency budget submissions and the NSTC committee review of agency crosscuts (see Appendix 3 format). It should highlight to OMB any concerns relevant to the President's FY 1998 R&D investments.
- OSTP Participates in OMB Director's Reviews (November-December).
- Agency Budget Offices Report Final Crosscut Estimates (December-January). Final crosscut estimates will be entered into OMB's MAX budget Schedule C database by the agencies as part of the normal agency budget data entry process. Details of this new process will be provided in the next revision of OMB's Circular A-11 due out later this Spring.
- R&D Section of the President's Budget and Complementary NSTC Reports (January-February). NSTC/OSTP will contribute to or produce reports to help support the President's budget.

APPENDIX 1: AGENCY CROSSCUT TABLES

The following table would be created for each crosscut area:

FY 1998 NSTC Crosscut Table BA in Millions

Crosscut Name: _____

	1996	1997	1998
Budget Account #1			
Program #1-1			
Program #1-2			
.			
.			
Budget Account #2			
Program #2-1			
Program #2-2			
.			
.			
TOTAL AGENCY.....			

Definitions:

- Budget Account. Budget account that includes the agency crosscut contribution. The goal with this entry is to provide a way to trace the crosscut contributions in the budget. The budget account name can be an appropriations account, a budget line item, or whatever level the agency's OMB Analyst is familiar with seeing in the agency request to OMB. Budget estimates should represent the funds available in this budget account even though not all of it contributes to the crosscut.
- Program. Program name and budget estimates that represents the agency crosscut contribution. The Budget Account and Program funding may be the same if all of the resources of the budget account contribute to the crosscut.
- Double Counting. Double counting between other crosscuts must be identified by footnote and show the amount double counted. If an agency wants to make it clear that a contribution to a particular crosscut is its primary focus even though it may contribute (in a secondary fashion) to other crosscuts than that can also be noted.

APPENDIX 2: NSTC REVIEW REPORT

A review report should be developed by the relevant NSTC committee for each NSTC crosscut.

1. Summary Report. This should be no longer than 3-5 pages describing the goals of the crosscuts, how the agency programs map into scientific or technological themes of the crosscut, and how the progress and performance of the crosscut can be measured. This description should highlight any issues that need to be addressed in the budget process. All the FY 1998 R&D Data Collection Principles mentioned above must be observed (focus on quality, avoid highlighting just incremental costs, etc.).
2. List of All Agency Contributions. Must be in the format of the Agency Crosscut table.

APPENDIX 3: OSTP ASSESSMENT REPORT

This brief assessment report should include:

1. Non-crosscut Issues. This should include non-crosscut R&D issues that need to be raised in the FY 1998 budget process. For example, specific agency programs (budget or policy) that need high-level attention.
2. Crosscut Issues. This should include OSTP's analysis of the NSTC Review Reports, including OSTP's integrated summary of the crosscuts and recommendations on any outstanding issues raised by the committees. The report should include the NSTC Review Reports (for all crosscuts) as an appendix.

RETIREMENT INCOME

Mandate portability of benefits from defined benefit plans.

Decrease vesting periods.

Permit greater participation in voluntary savings arrangements (IRAs).

Increase tax penalty on withdrawn benefits.

BACKGROUND

A dramatic increase in the mobility of the U.S. workforce has occurred to the point that established retirement plan options are quickly becoming obsolete. Technical professionals have been particularly affected by these shortcomings in retirement income policy. For example, many engineers who are employed with smaller high technology and service firms are left without pension opportunities because many smaller businesses are unable to afford the high costs and uncertainties of qualified retirement plans.

At the same time, shifts in employment opportunities resulting in short-term employment have also prevented engineers and technical professionals from fully participating and benefiting from retirement income plans. If an employer chooses to provide pension plans to engineers employed on a short-term basis, the pension benefits accrued will not be transferrable if the employer has selected the five- or seven-year vesting standard established by law.

The federal government has failed to address retirement income accessibility and portability needs of the workforce. In fact, its past actions have discouraged many employees and employers from even participating in pension plans.

For example, with the enactment of the Tax Reform Act of 1986, Congress and the Administration limited most individuals from making tax-deductible contributions to Individual Retirement Accounts (IRAs). The tax incentives offered through IRAs may also be restricted if an individual or their spouse is an "active participant" in any other qualified retirement program.

In the 104th Congress, individual savings incentives legislation was introduced in the House as part of the Republican Contract With America. The American Dream Restoration Act (H.R. 6) would allow individuals to make nondeductible annual contributions of up to \$4,000 per couple (\$2,000 for individuals) to new American Dream Savings Accounts (ADSAs) regardless of income or pension status. The contribution level would be adjusted for inflation after 1996. The funds and any earnings held in the account for five years or more could be withdrawn tax-free and without penalty if used to pay for retirement, first-time home purchases, higher education, or medical expenses or long-term care insurance.

NSPE POSITION

NSPE supports a retirement income system that includes a variety of options for providing retirement savings opportunities for those already in the workforce and for the future



workforce. NSPE opposes a national retirement income system that imposes prescriptive federal government mandates on employers. However, the federal government can and should play a role in establishing a policy that promotes pension accessibility and portability.

NSPE believes that the federal government should meet these objectives by enacting laws and regulations that accomplish the following: (1) mandate the portability of employer contributed benefits from defined benefit plans; (2) decrease the current five-year "cliff" and seven-year "graduated" requirement for vesting to a three-year "cliff" standard and five-year "graduated" standard; (3) encourage employees who change jobs to transfer accrued benefits from retirement plans to new plans by increasing the tax penalty on withdrawn pension benefits that are not rolled over into another retirement plan; (4) permit all wage earners to participate in government-sponsored voluntary savings plans such as IRAs or early augmented contributions to their defined contribution plans; (5) increase private employer, particularly small firms, participation in retirement plans, and provide an equitable structure similar to that offered to the public employee; and, (6) reduce government regulation of retirement plans in order to simplify complex administrative requirements which are a disincentive for employers to provide greater pension coverage.

NSPE ACTION

NSPE participates in the Engineers' and Scientists' Joint Committee on Pensions (ESJCP) of the American Association of Engineer Societies (AAES). ESJCP monitors retirement income legislation and recommends action on legislation to the AAES Engineers' Public Policy Council.

AAES testified before the House Committee on Ways and Means in support of the American Dream Restoration Act of 1995 (H.R. 6).

STATUS

The American Dream Savings Account (H.R. 6), which passed the House as part of the Contract With America Tax Relief Act, has been included in the budget reconciliation measure.

The reconciliation package also retains a provision that would allow companies to withdraw funds from pension plans holding assets greater than 125% of the plan's "current liability" (the amount needed to assure that the plan can pay benefits over time if it remains in effect).

Current law permits companies to tap pension assets without penalty if the funds are used to pay health insurance for retirees. If a company takes excess funds out of a pension plan, they must pay a penalty tax of up to 50 percent in addition to income tax on the funds withdrawn. The pension withdrawal provision of the reconciliation package would waive the penalty tax for eighteen months and then lower it to 6.5 percent.

The Administration opposes the pension withdrawal provision, claiming it would leave workers' pensions vulnerable in the event of an economic downturn.

NSPE REFERENCES

Position Statement on Retirement Income - 7/93.

Professional Policy on Retirement Income - 7/93.

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EMPLOYEE INVOLVEMENT

Amend the National Labor Relations Act to remove barriers to quality management practices.

BACKGROUND

In March 1993, the U.S. Secretaries of Commerce and Labor established an advisory commission to examine the state of worker-management relations in the U.S. The Commission on the Future of Worker-Management Relations, also known as the Dunlop Commission, issued a report and recommendations in December 1994.

The report discusses the role of employees in workplace decisions, particularly in the context of quality improvement practices such as quality circles, employee involvement teams, total quality management (TQM) teams, safety and health committees, and others.

The Report also discusses recent National Labor Relations Board (NLRB) decisions that call into question the ability of employers to legally establish employee involvement committees, based on its interpretations of Sections 2(5) and 8(a)(2) of the National Labor Relations Act (NLRA). In its 1992 *Electromation* decision, the NLRB found that a small manufacturing company had violated the NLRA when it established committees to address employee-related policies. The NLRB determined that these committees were "labor organizations" within the meaning of Section 2(5). In its 1993 *du Pont* ruling, the NLRB found the company to be in violation of the Act by establishing joint employer-employee health and safety committees.

In its report, the Dunlop Commission concluded that employee participation and labor-management partnerships are good for workers, firms, and the national economy. All parties want to encourage expansion and growth of these developments. To do so, however, requires removing the legal uncertainties affecting some forms of employee participation while safeguarding and strengthening employees' rights to choose whether or not they wish to be represented at the workplace by a union or professional organization.

Accordingly, the Commission recommended clarifying the NLRA and its interpretation by the NLRB to insure nonunion employee participation programs are not found to be unlawful simply because they involve discussion of "terms and conditions" of work or compensation as long as such discussion is incidental to the broad purposes of these programs. At the same time, the Commission recommended, the law should continue to make it illegal to set up or operate company-dominated forms of employee representation.

In the 104th Congress legislation that is in keeping with the principles of the Dunlop Commission has been introduced. Senator Nancy Kassebaum (R-KS) and Representative Steve Gunderson (R-WI) have introduced legislation (S. 295/H.R. 743) that would make clear that the NLRA is not intended to prohibit employees and employers from meeting in employee involvement structures to



discuss matters of mutual interest, including terms and conditions of employment involving quality, productivity, efficiency, and health and safety. In addition, Senate legislation (S. 1423) to reform the Occupational Safety and Health Administration (OSHA) includes an exemption for safety and health committees from Section 8(a)(2) of the NLRA.

NSPE POSITION

NSPE is an enthusiastic advocate of quality improvement. NSPE believes that the private sector must incorporate quality management practices into its operations if it hopes to remain competitive in the global economy. Governmental, educational, and nonprofit institutions should also adopt quality management practices in order to improve their product and service delivery.

NSPE views employee involvement as a critical component of the quality improvement process. Under quality systems, customer input, including that of internal employee customers, is essential.

NSPE believes that recent interpretations of the National Labor Relations Act cast doubt on the future ability of employers to institute employee involvement and certain quality improvement activities. As a result of the decisions, employers will now think twice, and with just cause, before establishing such processes. This hesitancy will serve only to delay the adoption of quality management practices in the U.S. workplace.

Accordingly, NSPE supports amendments to the NLRA that remove legal barriers to quality improvement. The NLRA should be amended so that quality circles, joint production teams, and other forms of employee participation would no longer be determined to be illegal work practices. Section 8(a)(2) of the NLRA should be

modified in a manner that permits the most flexibility to employers and employees; overly rigid statutory language that does not reflect the flexibility expected in the modern workplace is the source of the problem in the first place. NSPE believes that the Teamwork for Employees and Managers (TEAM) Act of 1995 (S. 295/H.R. 743) conforms to these principles.

NSPE ACTION

NSPE submitted a statement for the record to the Senate Labor and Human Resources Committee and the House Economic and Educational Opportunities Committee in conjunction with their hearings on S. 295/H.R. 743.

NSPE submitted a written statement to the Dunlop Commission in response to its request for comments on its May 1994 Fact Finding Report.

NSPE has joined the TEAM Coalition, which supports S. 295/H.R. 743.

STATUS

The House approved H.R. 743 on September 27, 1995 by a vote of 221-202. The Senate Labor and Human Resources Committee has held hearings on S. 295.

NSPE REFERENCES

Statement on the Teamwork for Employees and Managers (TEAM) Act (S. 295/H.R. 743) - 2/26/95

Statement to the Commission on the Future of Worker-Management Relations (Dunlop Commission) - 10/25/94.

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WOMEN IN ENGINEERING

*Eliminate barriers that inhibit the advancement of women in the engineering work force.
Establish commission to study women in science and engineering.*

BACKGROUND

An NSPE task force on women in engineering studied the barriers to advancement, known as the "glass ceiling," as experienced by women in the engineering profession. The task force identified many causes of the glass ceiling in the engineering environment. The task force also identified specific employment practices that contribute to the retention and promotion of women in the engineering profession. These findings are presented in the task force's report, *The Glass Ceiling & Women in Engineering*.

Many of the report's findings are based on surveys and interviews with the CEOs and human resource directors of small to mid-sized engineering firms. These individuals were asked for their views on issues facing women engineers such as work force representation, advancement, opportunity, barriers to promotion, and scope of benefits.

The study found that women engineers represent only three percent of the engineers employed in NSPE private practice firms and 0.5 percent of those employed in construction, despite a national average of eight percent of women in the engineering workforce. Of the women employed in private practice firms, only 25 percent are managers, while 36 percent of their male engineers hold management positions. Of the 0.5 percent of women engineers employed in construction firms, 40 percent are managers compared to 45 percent of the male engineers.

Across private practice firms, women engineers are working in high level design and project study/analysis. In construction, women engineers are most frequently found in computer operations -- a function which ranks in the middle of the "importance" scale for them. Only eight percent of surveyed firms reported having at least one female engineer involved in "planning," which construction CEOs rated as the most important job function.

According to most of the survey respondents, the main barrier to promotion that women face is the perception that "women leave the career path earlier than men." Private practitioners also felt that "women lack a broad experience base." CEOs in construction believe that the "lack of female role models" is also one of the most significant factors.

Finally, the private practice human resource directors reported that half their firms provide for flex-time work arrangements, while two-thirds of construction CEOs reported that their firms do not. In fact, only 25 percent of private practice firms offer unpaid maternity leave (less than 14 percent offer paid leave); 20 percent of construction firms offer unpaid maternity leave (roughly 15 percent offer paid leave).



On the legislative front, Representative Connie Morella (R-MD) and Senator Orrin Hatch (R-UT) introduced legislation (H.R. 467 and S. 2356) that would establish a "Commission on the Advancement of Women in the Science and Engineering Work Forces." The Commission would be charged with studying the problems women face in entering and succeeding in technical professions and forward recommendations to the President and Congress.

NSPE POSITION

NSPE supports legislative measures that address the elimination of artificial barriers that inhibit the advancement of women in the science and engineering work forces. NSPE urges Congress to establish a "Commission on the Advancement of Women in the Science and Engineering Work Forces" to examine the issue.

NSPE ACTION

NSPE sent correspondence to Representative Morella (R-MD) endorsing H.R. 467. NSPE also submitted testimony to a hearing of the House Science, Space and Technology Subcommittee on Energy on careers for women in science and technology.

Lynn Bertuglia, P.E., Chair of the NSPE Task Force on Women in Engineering, met with Representative Morella to discuss the legislation and to offer NSPE's continued support for her efforts in this area.

STATUS

H.R. 467 and S. 2356 were not enacted prior to adjournment of the 103rd Congress. Similar legislation may be introduced during the 104th Congress.

NSPE REFERENCES

Statement on Women in Engineering to the House Science, Space, and Technology Subcommittee on Energy - 5/12/94.

The Glass Ceiling and Women in Engineering - 8/92 (Pub. No. 3054).

STAFF CONTACT

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WORKPLACE LEAVE FLEXIBILITY

Clarify Fair Labor Standards Act to ensure workplace leave flexibility.

BACKGROUND

Under the Fair Labor Standards Act (FLSA) of 1938, "exempt executive, professional and administrative employees" are "salaried employees" whose pay is not subject to reduction because of variation in the quality or quantity of work performed. Such employees are also exempt from the FLSA overtime compensation requirements for hourly employees. However, according to the Department of Labor (DOL), employees classified by an employer as "salaried employees," but treated as hourly employees, will be viewed under the law as "hourly employees" and awarded overtime back pay.

For example, the engineering firm Malcolm Pirnie, Inc. had a policy of docking the pay of certain salaried employees for missing part of a normal eight-hour work day if the employee's accrued leave time had been exhausted. The firm sought to correct the situation by reimbursing the employees for the amounts docked. DOL declined to accept this approach, claiming Pirnie's docking policy effectively converted these employees from "salaried employees" to hourly employees," and as such the employees were entitled to back pay in excess of \$.5 million. A federal trial court agreed with Pirnie, ruling that under the regulations, the firm was entitled to a "window of correction." On appeal, a federal appeals court reversed the trial court and ruled that the "window of correction" was

unavailable to Pirnie because its pay docking policy was "not inadvertent." Pirnie's appeal to the U.S. Supreme Court was denied. The Pirnie decision and similar decisions have had ambiguous, inequitable, and disquieting results for both employees and employers. These court decisions effectively limit employers' ability to provide their employees "family friendly" policies. The decisions reflect the need for a modified Fair Labor Standards Act that is more responsive to the needs and expectations of workers and managers today.

Recent policies enacted by Congress also conflict with the FLSA and have established roadblocks for salaried employees in smaller companies who wish to take family or medical leave. Under the recently enacted Family and Medical Leave Act (FMLA), employers with 50 or more employees must give up to 12 weeks of unpaid leave, including partial-day absences, for medical and family purposes. The FLSA, however, prohibits salaried employees in firms with fewer than 50 employees from taking unpaid partial-day leave for any reason. If an employer of a smaller firm (fewer than 50 employees) voluntarily wants to comply with the FMLA, they will be in violation of the FLSA.

To address the exemption requirements under the FLSA and to increase employer flexibility in work scheduling, Rep. Cass Ballenger (R-NC) and Sen. John Ashcroft (R-MO) have introduced legislation (H.R. 2391/S. 1129). Specifically, the measures



would amend the overtime requirements of FLSA to allow employers and employees more freedom to negotiate flexible work schedules. The Ballenger bill would, for the first time since the enactment of the FLSA, permit private employers the option of offering time-and-a-half compensatory time off to non-exempt workers in lieu of time-and-a-half overtime pay as payment for hours worked in excess of forty in a week. In 1985 Congress approved legislation to allow the public sector to provide compensatory time to non-exempt employees. Similarly, H.R. 2391 would require that compensatory time be provided only under a mutual agreement between the employer and the employee. Whether the employee chooses compensatory time or overtime pay, both would accrue at a rate of time-and-a-half.

The Ashcroft bill would abolish the current mandatory 40-hour-a-week threshold for overtime pay. Instead, employees would be permitted to work 160 hours in any combination over four-week period before employers would have to pay overtime compensation. In addition, the legislation would reverse a Department of Labor ruling that salaried employees who have their pay docked for partial-day absences are entitled to overtime and back pay.

NSPE POSITION

Due to the current structure of the FLSA, and its rigid definition of the workweek, workplace flexibility policies are difficult, if not impossible, to implement. Employers are discouraged from instituting flexible leave policies for such practices as partial-day absences for fear that they will be subject to stiff legal penalties. Accordingly, NSPE believes the FLSA and/or its regulations should be clarified so that it: (1) reflects evolutions in the workforce and workplace; (2) is easily understood by both employers and employees;

(3) provides a more contemporary definition of salaried employee; (4) includes fair, equitable and balanced rules concerning compensation for salaried employees; and, (5) provides for reasonable flexibility for employers in scheduling work.

NSPE ACTION

In conjunction with a hearing held by the House Economic and Educational Opportunities Subcommittee on Workforce Protections, NSPE submitted a statement urging Congress to amend the current employment and labor laws to correct the problems created by the regulatory and judicial interpretations of the FLSA.

STATUS

The House Economic and Educational Opportunities Subcommittee on Workforce Protections has held several hearings on the FLSA.

The Senate Labor and Human Resources Committee has not yet scheduled any hearings on the FLSA.

NSPE REFERENCES

Workplace Leave Fairness Task Force Report to the NSPE Legislative and Government Affairs Committee - 7/21/93.

Statement on the FLSA to the House Economic and Educational Subcommittee on Workforce Protections - 6/13/95.

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UNFUNDED MANDATES

Oppose imposition of federal mandates on state and local governments without providing the resources to pay for their implementation.

BACKGROUND

As the federal deficit has increased over the years, there has been a corresponding increase in the imposition of federally- mandated programs on state and local governments. Congress has established new responsibilities for state and local government without providing them the funds necessary to implement the requirements.

States and local governments, who are also pressed for revenues, have been increasingly vocal about their opposition to such mandates. Supporters of an amendment to the Constitution that would require the federal government to maintain a balanced budget are concerned that unfunded mandates could become the loophole that undermines the purpose of the amendment, should it be adopted. Key Republicans have also expressed concern about federal mandates on business, in addition to state and local governments.

The 103rd Congress considered legislation to address the unfunded mandates issue. S. 993 and H.R. 5128 called for the Congressional Budget Office to provide a fiscal analysis of any bill that imposed costs on state and local government of more than \$50 million. H.R. 140 called for an outright prohibition on congressionally-imposed federal mandates.

NSPE POSITION

NSPE opposes the practice of enacting unfunded mandates on state and local agencies. Such mandates then require the state and local agencies to pay for implementation from their already severely strained financial resources or to impose new taxes to raise the necessary funds.

NSPE ACTION

At the recommendation of the Florida Professional Engineers in Government and the NSPE L&GA Committee, the NSPE Board of Directors adopted a professional policy on unfunded federal mandates in July 1994.

STATUS

Congress has approved the Unfunded Mandates Legislation (S. 993/H.R. 5128), and President Clinton has signed it into law (P.L. 104-4). Efforts are underway to implement the new law. The Federal Register for March 27, 1995, page 15784, seeks information on existing federal mandates on local and tribal governments.

NSPE REFERENCES

Professional Policy No. 156 - Unfunded Federal Mandates - 7/94

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NATIONAL SCIENCE FOUNDATION

*Rename NSF the National Science and Engineering Foundation.
Rename NSB the National Science and Engineering Board.
Reauthorize and increase NSF funding.*

BACKGROUND

The National Science Foundation (NSF) is an independent agency of the federal government whose mission is to support science, mathematics, and engineering (SME) research and education. The National Science Board is the Foundation's governing body.

Through the reauthorization process, Congress evaluates the effectiveness and efficiency of current laws, establishes new programs, abolishes unnecessary programs, and sets funding levels. The reauthorization cycle for NSF provides Congress the opportunity to examine current issues affecting SME education and research.

In the 104th Congress, the House Science Committee developed reauthorization legislation for the Foundation (H.R. 1852). Among the issues addressed in the bill were the funding levels for the Foundation's programs, the balance between the Foundation's support for research in strategic areas and curiosity-driven areas, the balance between the Foundation's support for education and research, the shortcomings in how the nation prepares undergraduate students, and the facility and instrumentation needs of colleges and universities. In addition, the Science Committee also considered changing the names of the National Science

Foundation and the National Science Board to the National Science and Engineering Foundation and the National Science and Engineering Board.

Congress may continue to explore the placement of the Foundation's programs in a proposed Department of Science.

NSPE POSITION

NSPE supports reauthorization of and increased funding for the National Science Foundation.

NSPE endorses a name change for the Foundation and for its governing body, the National Science Board, so that their titles reflect the Foundation's commitment to both science and engineering.

NSPE seeks to rename NSF the National Science and Engineering Foundation and NSB the National Science and Engineering Board.

An expansion of the Foundation's and the Board's names to include explicit references to engineering would foster recognition of the co-equal role that engineering plays with science in the research enterprise.



A name change would reflect the growth in Foundation support for engineering research and education since the agency's inception. The treatment of engineering within the Foundation has evolved from that of a stepsister of science to that of a full partner in meeting the research and education objectives of the nation. A name change for the Foundation and for the Board is the next logical step in this evolutionary process.

A name change would enhance appreciation of the Foundation's contributions to engineering research and education. It would send a message to its beneficiaries and the public that new tasks have been asked of the Foundation. Congress, in 1985 amendments to the NSF Organic Act, has already made the toughest decisions and spoken clearly in regard to an expanded mission for engineering. The name change would serve only to underscore this statutory fact.

NSPE ACTION

NSPE submitted a statement in support of name changes for the Foundation and the Board to the House Science Committee. NSPE sent letters to members of the Science Committee requesting their support. NSPE made a personal contact with the office of nearly every House Science Committee member to build support for the name change. NSPE also enlisted its Engineer Ambassadors, the state societies, and deans of the colleges of engineering, to contact their Members of Congress urging their support for the name change.

STATUS

The House Science Committee marked up H.R. 1852 on June 28, 1995. Representative Joe Barton, P.E. (R-TX), a member of the committee, offered an amendment to rename the Foundation the National Science and Engineering Foundation and the Board the

National Science and Engineering Board. The amendment was defeated on a recorded vote of 16-22.

Science Committee Members Voting "Yes" on Barton Name Change Amendment - Boehlert (R-NY), Weldon (R-PA), Schiff (R-NM), Barton, P.E. (R-TX), Calvert (R-CA), Weldon (R-FL), Graham (R-SC), Salmon (R-AZ), Stockman (R-TX), Tiahrt (R-KS), Hall (D-TX), Geren (D-TX), McHale (D-PA), E.B. Johnson (D-TX), Ward (D-KY), Jackson Lee (D-TX).

Science Committee Members Voting "No" on Barton Name Change Amendment - Walker (R-PA), Fawell (R-IL), Morella (R-MD), Rohrabacher (R-CA), Baker (R-CA), Bartlett (R-MD), Ehlers (R-MI), Wamp (R-TN), Davis (R-VA), Gutknecht (R-MN), Seastrand (R-CA), Cubin (R-WY), Foley (R-FL), Roemer (D-IN), Minge (D-MN), Olver (D-MA), Hastings (D-FL), Rivers (D-MI), McCarthy (D-MO), Lofgren (D-CA), Doyle (D-PA), Luther (D-MN).

Science Committee Members Not Voting on Barton Name Change Amendment - Sensenbrenner (R-WI), Largent (R-OK), Hilleary (R-TN), Myrick (R-NC), Brown, Jr. (D-CA), Traficant (D-OH), Hayes (D-LA), Tanner (D-TN), Cramer (D-AL), Barcia (D-MI), Harman (D-CA), Doggett (D-TX).

The text of the committee-approved version of H.R. 1852 was folded into an omnibus civilian science reauthorization measure (H.R. 2405). The House approved H.R. 2405 on October 12, 1995 by a 248-161 vote.

The Senate Commerce, Science, and Transportation Committee has held an oversight hearing on the National Science Foundation.

NSPE REFERENCES

Statement on a Name Change for the National Science Foundation and for the National Science Board - 3/9/95.

Professional Policy No. 38-F - Research -- National Science Foundation.

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MANUFACTURING AND TECHNOLOGY DEVELOPMENT

Support technology development, manufacturing research, industrial extension, and quality improvement. Reauthorize programs of the National Institute of Standards and Technology.

BACKGROUND

The Clinton Administration unveiled a comprehensive technology policy in February 1993. The policy incorporated many concepts that had been offered in the past by congressional Democrats, but stymied by Republican administrations.

Following announcement of the Clinton plan, Congress turned to efforts to adopt legislation that implemented the policy. Congressional Democrats introduced the National Competitiveness Act, which was aimed largely at strengthening federal support for civilian technology and manufacturing through the programs of the National Institute of Standards and Technology (NIST) and the National Science Foundation. Both the House and Senate adopted the legislation, but conferees were unable to resolve differences between the versions prior to adjournment of the 103rd Congress.

The November 1994 elections, which shifted control of Congress to Republicans, has brought about a change in the prevailing attitude toward technology policy in Congress. The Republicans favor a competitiveness policy based on macroeconomic policy changes and regulatory reform, rather than

federal investment programs. Some key Republican members have strong philosophical objections to the federal government assuming a role in applied research or technology development. Furthermore, congressional commitment to deficit reduction has resulted in proposals to abolish federal technology programs such as the Advanced Technology Program (ATP) and Manufacturing Extension Partnership (MEP) of the National Institute of Standards and Technology. In addition, Republicans have called for abolition of the U.S. Department of Commerce, in which NIST is housed.

NSPE POSITION

Technology development choices should be decided by the private sector rather than the government. Government, however, has a role to play in assisting the private sector in technology development by supporting consortia, providing incentives for cooperative research, relaxing antitrust barriers, facilitating industry collaboration with universities and government laboratories, and providing tax incentives. NSPE supports the development of a nationwide industrial extension program. NSPE also supports a limited government role in financing technology commercialization.



NSPE ACTION

In correspondence to Congress, NSPE expressed its support for the science, engineering and technology research, development and transfer functions of the U.S. Department of Commerce and called for a continued federal role in providing such services, whether through the Department of Commerce or another federal agency.

NSPE sent President Clinton and the Congressional leadership correspondence voicing NSPE's support for healthy FY 1996 budgets for federal science, engineering, and technology programs.

STATUS

The House Science Committee marked up legislation (H.R. 1870) that authorizes funding for NIST's laboratory and measurements program. The House Science Subcommittee on Technology also marked up a draft measure that authorizes funding for the ATP and the MEP. However, the full committee did not mark up the ATP/MEP measure, given Chairman Robert S. Walker's (R-PA) opposition to those programs.

The text of the committee-approved version of H.R. 1870 was folded into an omnibus civilian science reauthorization measure (H.R. 2405). The House approved H.R. 2405 on October 12, 1995 by a 248-161 vote.

The Senate Commerce, Science, and Transportation Committee has marked up legislation (S. 1411) that authorizes funding for NIST's laboratory, measurements, and manufacturing extension program. Under the bill, funding for the ATP is prohibited after FY 1995.

Congress has approved an FY 1996 appropriations measure (H.R. 2076) for the

Department of Commerce that provides funds for NIST's laboratory and manufacturing extension programs, but not the ATP program. The President is expected to veto the measure, in part because of its lack of funds for the ATP program.

The budget resolution agreed to by the House and Senate calls for the abolition of the Department of Commerce, which houses NIST. Representative Dick Chrysler (R-MI) and Senator Spencer Abraham (R-MI) have introduced legislation (H.R. 1756/S. 929) to terminate the department.

The first budget reconciliation measure adopted by Congress did not include dismantling of the Department of Commerce, due to objections from the Senate that the dismantling provisions were not germane to the bill. The House version of the package would have renamed NIST the National Bureau of Standards and folded the Bureau into a new independent federal agency, the National Institute of Science and Technology. The Institute would also include programs of the National Oceanic and Atmospheric Administration and the Office of Space Commerce.

NSPE REFERENCES

Correspondence to House Science Committee Ranking Member George E. Brown, Jr. (D-CA), regarding Department of Commerce Dismantling Legislation - 9/95

Position Statement on Competitiveness - 1/94

Professional Policy on Competitiveness - 1/94

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RESEARCH AND EXPERIMENTATION (R&E) TAX CREDIT

Adopt a permanent tax credit for qualified research expenditures.

BACKGROUND

Section 41 of the Internal Revenue Code establishes a tax credit for research and experimentation (R&E). Taxpayers are allowed to claim a credit equal to 20 percent of the excess of qualified research expenses in a taxable year over a base amount. The base amount is a product of a fixed-based percentage multiplied by the taxpayer's average annual gross receipts for the four preceding years. The fixed-based percentage is calculated by dividing the company's qualified research expenditures for the four years 1984 through 1988 by gross receipts for the same period. There is a special calculation formula for start-up firms.

Qualified research expenditures include in-house expenses for wages paid for qualified research services and supplies used in research; payments for the rights to use computers for qualified research; and 65 percent of the payments made for contract research done on the taxpayer's behalf.

Section 41 has been part of the federal tax code since 1981. Congress has extended the temporary exclusion six times since its inception.

In the 104th Congress, legislation (S. 351/H.R. 803) to make the R&E credit a permanent component of the tax code has been introduced.

NSPE POSITION

NSPE supports making the tax credit for qualified research expenditures (the R&E tax credit) a permanent component of the tax code.

The R&E tax credit is a necessary component of our nation's comprehensive strategy to remain competitive in the global marketplace. The credit, because it applies only to R&E expenditures that exceed a base amount, encourages beneficiaries to increase their level of R&E beyond what they normally would have conducted without the credit. Clearly then, the R&E tax credit promotes research and experimentation additional to that already underway, leading to new technological innovations that might not have been developed otherwise.

The R&E tax credit also counters one of the primary disincentives to private sector research and experimentation -- the financial disadvantage incurred by a firm that conducts

research, only to have their competitors gain access to the new technology without having incurred the research expense themselves. In a sense, the R&E tax credit "reimburses" those industries whose research benefits the economy as a whole.

Also, because this credit applies to contract research conducted on the taxpayer's behalf as well as to in-house R&E, the credit may in some cases stimulate greater cooperation between industry and academia. Both industry and academia benefit when certain academic research is directed to specific industry needs.

The R&E tax credit provides a mechanism for the government to encourage private sector development of a strong research base on which to build future economic stability. Also, the tax incentive relies on existing research resources already available, rather than establishing costly, new programs.

NSPE seeks permanent enactment of the R&E tax credit because short-term extensions prevent beneficiaries from making long-range business plans with confidence. In fact, some eligible participants may choose not to avail themselves of the benefit as a result of the uncertainties involved with temporary extension. The short-term nature of the provision has diminished its potential to effectively meet important research needs.

NSPE ACTION

NSPE has submitted testimony to the House Ways and Means Committee and Senate Finance Committee in support of a permanent R&E tax credit.

STATUS

The Omnibus Budget Reconciliation Act of 1993 (H.R. 2264/P.L. 103-66) contained a provision that temporarily extended the R&E tax credit through June 1, 1995.

The 104th Congress has not yet extended the R&E credit, but has proposed to do so in budget reconciliation legislation (H.R. 2491). The legislation provides a retroactive extension back to July 1, 1995, and an extension through December 31, 1996. In addition, the legislation includes three structural changes to the credit. These include an expanded definition of start-up firms; a new option to elect an alternative but irrevocable two-three percent incremental credit calculated on a lower base amount of sales; and increase from 65 percent to 75 percent the portion of research payments to qualified nonprofit research consortia that would be allowable under the credit.

The House Ways and Means Committee and the Senate Finance Committee have held hearings on H.R. 803 and S. 351.

NSPE REFERENCES

Position Statement on Competitiveness - 1/94

Professional Policy on Competitiveness - 1/94

Statement on the Research and Experimentation Tax Credit - 4/14/95

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SPECIALTY LICENSING AND CERTIFICATION

Oppose laws that require licensed professional engineers to obtain specialty licenses or certificates in order to provide engineering services.

Oppose licensing and certification requirements that result in unqualified individuals obtaining authority to provide engineering services without a license.

BACKGROUND

States and the federal government have adopted laws that require individuals to obtain a license or certificate in order to offer services in a specialized task or field. These laws differ from professional and occupational licensing laws in that those statutes regulate a broad range of services. Frequently, the education, examination, and experience requirements for professionals are more rigorous than those established under the specialty licensing or certification programs. In many cases, the federal government has required the states to adopt the specialty licensing program as a condition for federal funding or for assuming management of the federal program.

In addition, many private sector organizations offer training and certification programs and then provide individuals who have completed such training or complied with certification requirements a credential that verifies completion. The private sector offers credentials in a range of activities, from the very specific (e.g. Phase I environmental site assessment) to the broad (e.g. "environmental professional"). The private sector has established standards for accrediting private certification programs, but compliance is voluntary. In the absence of government

regulation, some organizations have established "sham" credentials that individuals can readily obtain merely by paying a fee.

Many of the specialized services subject to regulation through licensure or certification are in environmental fields, such as asbestos removal, lead abatement, radon and indoor air pollution mitigation, hazardous waste site remediation, storage tank inspection and removal, wetland delineation, and environmental site assessment. Often, activity in these fields involves individuals with varying skills, experiences, and education, including contractors, technicians, and licensed professionals. The growth in environmental licensing and certification programs is largely attributable to the growth and increasing complexity of the environmental services industry.

In some cases, the licensing or certification requirements encroach on the state regulation of the practice of engineering. Accordingly, the requirements result in unqualified individuals practicing engineering without first obtaining a PE license. Furthermore, the specialty licenses or certifications may represent a diminution of the professional engineer's legal scope of practice. The programs also result in licensed engineers being required to obtain the additional licenses



or certification in order to continue existing practice.

NSPE POSITION

NSPE opposes specialty licensing or certification requirements that could result in unqualified individuals obtaining authority to provide professional engineering services without meeting PE licensing requirements. Any specialty certification program under development should contain safeguards that preventing unlicensed individuals from engaging in the practice of engineering.

NSPE opposes specialty licensing and certification requirements that place restrictions on the ability of licensed professional engineers to continue to provide services that fall within the practice of engineering without obtaining the additional license or certification. NSPE believes the PE licensure process has already determined these individuals qualified to provide such services. NSPE recommends that states terminate licensing or certification programs that duplicate the PE license and instead require that a licensed professional engineer be retained to perform those activities.

NSPE ACTION

NSPE has submitted comments to Congress, the U.S. Environmental Protection Agency, and the U.S. Army Corps of Engineers on legislation and regulations that would establish federal certification requirements in the areas of environmental site assessment, lead-based paint abatement, and wetland delineation.

NSPE and the American Academy of Environmental Engineers (AAEE) serve as co-chairs of a multi-Society task force that is developing a profession-wide response to the proliferation of environmental credentials issued by the private sector.

NSPE assists its state societies in

monitoring and developing responses to specialty licensing or certification requirements at the state government level.

STATUS

The states have been most active in developing specialty licensing programs in the fields of asbestos abatement, lead abatement, radon mitigation, and underground storage tank inspection and removal. Some states are beginning to consider regulation of wetland delineation, environmental site assessment, and hazardous waste site remediation activities.

REFERENCES

Professional Policy 157 - Overlap and Improper Restrictions on Engineering Practice - 7/94

Statement on the Environmental Professionals Training and Certification Act (H.R. 3572) - 3/16/94.

Letter to House Energy and Commerce Committee Chairman John Dingell (D-MI) re: environmental training and certification provision of H.R. 3800, as amended

Correspondence to the U.S. Environmental Protection Agency re: proposed rule on lead abatement certification and training - 11/4/94.

Correspondence to the U.S. Army Corps of Engineers re: proposed rule on wetland delineation certification - 4/12/95

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Guidelines for Regulatory Programs Utilizing Licensed or Certified Individuals

SUMMARY

The National Society of Professional Engineers offers the following guidelines to assist public officials in specifying the minimum qualifications, including the possession of licenses or certificates, necessary for individuals to comply with regulatory programs.

- Governmental authorities should utilize licensure as the means of determining and verifying individual competency and qualifications.
- Governmental authorities should establish licensure requirements that measure an individual's competency in a broad area of practice, rather than in a specific task.
- Governmental authorities should specify a professional or occupational license(s) as the minimum qualification(s) when the regulated activity falls uniquely within the scope of practice of that licensed profession(s) or occupation(s).
- Governmental authorities, when specifying a license as the minimum qualification, should also specify that the individual be licensed in the jurisdiction in which the regulated activity occurs.
- Governmental authorities should not restrict the performance of a regulated activity solely to licensed individuals serving as an independent professional to the exclusion of licensees who are employees of the regulated entity.
- Governmental authorities should not require licensees to obtain additional licenses or certificates or specialized education or training beyond that required for the license in order to continue providing services that they are already authorized to provide under the licensure law that regulates them.
- Governmental authorities should not restrict the performance of a regulated activity to a single profession or occupation when the regulated activity falls within the scopes of practice of multiple groups.
- Governmental authorities should not permit any unlicensed individual to provide services that fall within the scope of practice of a licensed profession or occupation.
- Governmental authorities, when electing to use certification as a measure of minimum competency, should select only those certificates that have been granted by organizations whose certification processes have been accredited by a private, nationally-recognized, not-for-profit accreditation organization, or which have been determined by the governmental authority to meet criteria substantially equivalent to those used by a private accreditation organization.



Guidelines for Regulatory Programs Utilizing Licensed or Certified Individuals

Approved by the NSPE Legislative and Government Affairs Committee - 4/20/96

The National Society of Professional Engineers supports efforts by all levels of government to mandate that services necessary for compliance with the law are provided solely by qualified individuals. Accordingly, NSPE welcomes statutory or regulatory provisions that specify the minimum qualifications, including the possession of licenses or certificates, necessary for the performance of such services.

The National Society of Professional Engineers offers the following guidelines to assist public officials in specifying the qualifications necessary for compliance with regulatory programs. NSPE also will use these guidelines to evaluate regulatory programs that include qualifications requirements.

- Governmental authorities should recognize that there are several distinct processes to determine the minimum competency of individuals. The legal and substantive distinctions between these processes are not always understood by those evaluating their applicability to a given program. Unfortunately, governmental authorities, private organizations, and professions and occupations themselves have added to the confusion by misassigning terms to the credentialing processes selected for their profession or occupation. To clarify these misunderstandings, NSPE urges that governmental authorities and the private sector, when determining minimum qualifications, utilize the appropriate terminology to categorize the credentialing process selected. Distinctions should be made as follows:
 - “Licensure” is the process whereby a governmental authority, in accordance with state statute, determines the competency of individuals seeking to perform certain services. Through licensure, state governments grant individuals the authority to engage in an area of practice, generally to the exclusion of others, based on demonstrated education, experience, and examination. Licensees are required by law and code of ethics to faithfully discharge their responsibilities impartially and honestly. As a general rule, state governments possess the authority to discipline licensees who fail to comply with statutes and regulations and to take action against unlicensed individuals who practice within the scope of a licensed profession or occupation.
 - “Certification,” unlike licensure (which is authorized by state statute), is the process whereby a profession or occupation voluntarily establishes competency standards for itself. Certification plays a helpful role in protecting the public, especially in cases where the state legislatures have not opted to regulate the profession or occupation through licensure. However, there are broad variations in this voluntary process. Some certification organizations require the completion of rigorous education,

experience, and examination criteria. Others unfortunately do not. The private sector has established organizations to review and verify (accredit) the integrity of these certification programs. Certification organizations are not required to submit their programs to such accreditation. Also, unlike licensing authorities, certification organizations lack the authority to limit incompetent or illegal practice. Some national and state regulatory programs utilize the term “certification” to describe what are essentially licensure processes.

- “Registration” is the process by which an individual is listed as eligible to provide a regulated service, but not all registration processes require the demonstration of competency in that service. For historical reasons, some “licensed” professions and occupations (such as registered nurses, who are actually licensed) have embraced the term “registration” to describe their status.
- Governmental authorities should utilize licensure as the means of determining and verifying individual competency and qualifications. The establishment of procedures separate from this recognized credentialing process is not the most efficient or effective alternative and may lead to dilution and confusion. However, governmental authorities may choose to recognize or develop competency determination processes other than licensure when no license has been established to measure competency in the activity subject to regulation, or when the regulated activity is so general in scope as to be indistinguishable as a separate discipline of professional or occupational practice.
- The regulation of individuals through licensure generally falls within the province of state governments rather than the national government. Licensure is an exercise of constitutional police powers reserved for the states to protect the public health, safety, and welfare. Thus, it is inappropriate for the national government to establish licensure requirements or to mandate that the states do so. This includes the establishment of licenses (sometimes erroneously termed “certificates”) that are specially crafted in order for individuals to comply with and to be solely applicable to a discrete national statutory or regulatory objective.
- The establishment of individual competency standards through certification falls within the province of the private sector, rather than state government. When a state governmental authority establishes qualifications standards it should call this process “licensure” rather than “certification.”
- State governmental authorities should establish licensure requirements that measure an individual’s competency in a broad area of practice, rather than in a specific task. Task-based licensure tends to erect artificial barriers that act to prohibit otherwise qualified individuals from practice without obtaining numerous additional licenses. Additionally, task-based licensure impinges on existing licensed professions and occupations.

- Governmental authorities should specify a professional or occupational license(s) as the minimum qualification when the regulated activity falls uniquely within the scope of practice of that licensed profession(s) or occupation(s).
- Governmental authorities, when specifying a license as the minimum qualification, should also specify that the individual be licensed in the jurisdiction in which the regulated activity occurs. Each state must retain the right to regulate professional or occupational practice in the state according to its laws. Existing comity procedures offer individuals protection from undue duplicative licensure.
- Governmental authorities should not require licensees to obtain additional licenses or certificates or specialized education or training beyond that required for the license in order to continue providing services that they are already authorized to provide under the licensure law that regulates them.
- Governmental authorities should not restrict the performance of a regulated activity to a single profession or occupation when the regulated activity falls within the scopes of practice of multiple groups.
- Governmental authorities should not restrict the performance of a regulated activity solely to licensed individuals serving as an independent professional to the exclusion of licensees who are employees of the regulated entity. All licensees, no matter whom their employer, are required by state laws and codes of ethics to faithfully discharge their responsibilities impartially and honestly.
- Governmental authorities should not permit any unlicensed individual to provide services that fall within the scope of practice of a licensed profession or occupation. To strengthen the commitment to this principle, governmental authorities should include in statutes or regulations a provision that emphasizes that individuals are prohibited from practicing within the scope of a licensed profession or occupation unless licensed.
- Governmental authorities, when electing to use certification as a measure of minimum competency, should select only those certificates that have been granted by organizations whose certification processes have been accredited by a private, nationally-recognized, not-for-profit accreditation organization, or which have been determined by the governmental authority to meet criteria substantially equivalent to those used by a private accreditation organization.
- Governmental authorities should consult at a minimum with state licensing authorities, professional societies, and accreditation organizations when establishing minimum qualifications of individuals.



National Society of Professional Engineers

November 4, 1994

RE: Docket Number OPPTS-62128
TSCA Public Docket Office (7407)
Office of Pollution Prevention and Toxics
Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

The National Society of Professional Engineers (NSPE) offers its comments on a proposed rule of the U.S. Environmental Protection Agency (EPA) pertaining to training and certification requirements for individuals conducting lead-based paint activities. The Agency published its proposal in the September 2, 1994, *Federal Register* (59 FR 45872).

Our overriding concern is that this rule will conflict with the regulation of the practice of engineering, as governed by state law. The proposed rule creates federal certification categories for certain types of engineering work that are regulated by state professional engineering licensing statutes. Thus, the proposed rule could result in unqualified individuals practicing engineering without first obtaining a professional engineering license. Our detailed comments include an analysis of the flaws of the proposed regulation and specific recommendations to correct these deficiencies. We strongly urge EPA to incorporate NSPE's recommendations into its final rule.

The National Society of Professional Engineers (NSPE) was founded in 1934 and represents 70,000 engineers in the United States and abroad in 535 local chapters and 54 state and territorial societies. NSPE is a broad-based interdisciplinary society representing all technical disciplines and all areas of engineering practice, including government, industry, education, private practice, and construction.

Introduction

The Lead-Based Paint Hazard Reduction Act of 1992 and EPA's proposed rule broadly define lead-based paint (LBP) activities to include investigation, risk assessment, abatement, deleading, removal, and demolition. This range of tasks involves individuals with varying skills, experiences, and education, including contractors, technicians, and licensed professionals. As an association that vigorously supports the principles and practice of professional regulation through licensure, we support the intent of Congress to ensure that individuals performing LBP activities

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have met a minimum level of competency. However, when establishing training and certification requirements for individuals engaged in LBP activities, Congress (and now EPA) overlooked one simple fact -- the states already regulate, through professional engineering licensure, some of the individuals currently engaged in LBP activities.

About Professional Engineering Licensure

The regulation of professional and occupational practice through licensure is an exercise of the constitutional power of the states to protect the public health, safety, and welfare -- the so-called "police powers." Under state professional licensing statutes, individuals are granted a privilege--a public trust--to engage in an area of practice, generally to the exclusion of others, based upon demonstrated education, experience, and examination. The necessary corollary is that individuals who do not possess these qualifications should be prevented from offering such services to the public because they have not met the legally required level of professional competence.

Legislatures in all states have exercised their "police powers" with regard to the practice of engineering and have enacted licensing statutes for the profession. (A list of state professional engineering licensing law citations is attached (Attachment A).

Under state professional engineering licensing laws, an individual's competence to practice engineering is determined by subjecting him or her to a rigorous process. This process typically requires the individual to obtain a bachelor of engineering degree from an accredited engineering program, successfully complete two comprehensive examinations, and demonstrate a level of acceptable engineering experience. A typical licensing process is detailed in the attached *Model Law* of the National Council of Examiners for Engineering and Surveying (Attachment B). The *Model Law* provides state legislatures a framework for developing their individual engineering licensing statutes. (If the Agency wishes to examine the engineering licensing statutes of particular states, NSPE would be happy to provide assistance in obtaining them.) Attachment C provides further detail on the education, examination, and experience requirements typical for PE licensure.

Once licensed, a professional engineer is required to practice engineering solely within his or her area of competence and to protect the public health, safety, and welfare. Licensed professional engineers are also required by state laws and state licensing board rules of professional conduct to faithfully discharge their engineering responsibilities impartially and honestly. Furthermore, state governments have and do exercise the authority to discipline licensees who fail to comply with state laws and requirements.

The Engineer's Role in Lead-based Paint Activities

The NCEES *Model Law* and state engineering licensing statutes define the scope of activities that are within "the practice of engineering." For example, the *Model Law* definition of practice is as follows:

Practice of Engineering--The term "Practice of Engineering" within the intent of this Act shall mean any service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning, design and design coordination of engineering works and systems, planning the use of the land and water, teaching of advanced engineering subjects, performing engineering surveys and studies, and review of construction for the purpose of monitoring compliance with drawings and specifications; any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products or equipment of mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property, and including such other professional services as may be necessary to the planning, progress, and completion of any engineering services.

The state engineering statutes clearly recognize investigation, evaluation, planning, and design of buildings, structures, works, and systems as within the engineer's scope of practice.

In the lead-based paint arena, the professional engineer is engaged principally in assessment, planning, and abatement activities. Typically, the PE interprets the results of inspections and selects the technologies and methods that are appropriate and cost effective for abating the lead hazard. In many cases, the PE designs the equipment and techniques for LBP removal. The PE designs the containment structures and ventilation systems used to collect, clean, handle, or dispose the lead material. The PE also may manage the overall project on the owner's behalf, including establishing project specifications, estimating costs and schedules, assigning tasks, and ensuring that owner requirements as well as federal, state, and local laws are met. Each of these activities is regulated by state PE licensing laws.

Proposed Rule Overlaps Engineering Licensure

EPA, in this rulemaking, proposes to regulate activities that are already regulated by state professional engineering licensing statutes. If this overlap is left unaddressed in the final rule, EPA will have set the stage for conflict between federal and state authorities. EPA proposes to require training and certification of seven LBP "work disciplines" and to restrict LBP activities solely to those individuals who have met their requirements. It is NSPE's position that the responsibilities assigned to four of the proposed work disciplines (certified supervisor for commercial buildings and superstructures, certified supervisor for target housing and public buildings, certified planner/project designer for target housing and public buildings, and certified inspector/risk assessor for target housing and public buildings) constitute the practice of engineering.

Certified Supervisor for Commercial Buildings and Superstructures

Proposed 40 CFR § 745.228(g), § 745.228(h), and § 745.228(i) specify that supervisors for commercial buildings and superstructures are responsible for developing a written deleading plan and a post-abatement report; ensuring completion of all deleading activities according to the standards of this regulation; and, ensuring that deleading and demolition activities are conducted in accordance with regulatory requirements.

These and other tasks EPA has assigned to the certified supervisor for commercial buildings and superstructures are design and project management tasks currently performed by professional engineers. For example, in its preamble to the proposed rule, the Agency states, "the deleading of a watertower or industrial warehouse calls for sophisticated rigging and scaffolding equipment and the erection of containment structures" (59 FR 45875). These types of activities fall within the practice of engineering, as defined by state law.

RECOMMENDATION: EPA should delete certification requirements for supervisors for commercial buildings and superstructures. The Agency should require instead that a licensed professional engineer be retained to perform those activities assigned to the certified supervisor in the proposed rule.

Certified Supervisor for Target Housing and Public Buildings

Certified Planner/Project Designer for Target Housing and Public Buildings

Proposed 40 CFR § 745.228(c), § 745.228(f), and § 745.228(j) specify that certified supervisors and certified planners/project designers for target housing and public buildings are responsible for developing a written pre-abatement plan and an abatement report for each assigned unit; ensuring that abatement activities are conducted in compliance with regulatory requirements; and completing all reports under this regulation. The sole distinction the

Agency makes between the supervisor and planner/project designer disciplines is that the supervisor is limited to projects of less than ten units.

It is NSPE's position that both the certified supervisor and certified planner/project designer categories overlap state PE licensing laws. For example, in the preamble the agency describes a "typical" abatement project as involving "one or more of the following techniques:...building component replacement..." (59 FR 45886). Proposed 40 CFR § 745.223 defines "building component to include "specific design or structural elements or fixtures of a building..." (emphasis added). Thus the preamble and the proposed rule clearly establish that abatement projects may include design or structural activities.

The design of structures and buildings is one of the principal activities delegated to licensed professional engineers and other design professionals by state government. We have grave concerns that the proposed rule authorizes unlicensed individuals to make recommendations and perform work that affect structural elements of buildings and structures. By authorizing such activity, EPA would be enabling its certificants to violate state professional licensing laws.

Furthermore, NSPE questions the agency's decision to establish two tiers of certification for target housing and public buildings, distinguished solely by building size. Occupants and workers in single-family housing or small multi-family dwellings deserve no less protection from lead hazards than do occupants and workers in larger dwellings and public buildings.

RECOMMENDATION: EPA should delete certification for supervisors and planners/project designers for target housing and public buildings. The Agency should require instead that a licensed professional engineer be retained to perform those activities assigned to the certified supervisor and certified planner/project designer in the proposed rule.

Also, it is the position of NSPE that all individuals exposed to LBP hazards should be afforded equal protection, regardless of the size of the abatement project. On this basis alone, the supervisor category should be eliminated.

Certified Inspector/Risk Assessor for Target Housing and Public Buildings

Proposed 40 CFR § 745.228(b) specifies that certified inspectors/risk assessors are responsible for conducting an inspection for lead-based paint in target housing and in public buildings; completing an inspection report; taking post-abatement soil and dust clearance samples; conducting a risk assessment and other lead hazard assessment activities; completing a risk assessment report; interpreting the results of inspections and assessments; identifying hazard control strategies to reduce or eliminate lead exposures; and conducting post-abatement soil and dust clearance sampling and evaluating the results.

It is NSPE's position that the duties underlined above fall within the scope of practice of licensed professional engineers. While technicians do play a critical role in conducting tests and evaluating the severity of lead hazards based on such investigations, individuals at the technician level do not have the full range of education and experience necessary to prepare abatement options, nor are they licensed to recommend options that affect structures. Under state law, this task is assigned to licensed design professionals.

RECOMMENDATION: EPA should amend the proposed scope of practice for certified inspectors/risk assessors to delete references to "providing options for reducing lead-based paint hazards with a rationale for those options." Instead, the Agency should specify that such tasks are to be performed by a licensed professional engineer.

Rationale for the NSPE Position

State professional engineering licensing laws clearly regulate many of the same LBP activities that have been swept under the umbrella of the EPA training and certification proposed rule. For this reason alone, the Agency must reexamine its proposed rule and correct the overlap between the federal program and state requirements. While we are confident that our position is supportable on the basis of the state PE licensing laws, we offer the following additional points which further support our position.

- The education, examination, and experience requirements for professional engineers are more rigorous than those established under the proposed rule for the LBP work disciplines. Thus, requiring a professional engineer to perform certain LBP activities would provide the public greater protection from lead hazards than would the proposed EPA program. For example, EPA proposes no education, experience, or examination qualifications for the planner/project designer work discipline. This pales in comparison to the rigorous standards that the states have established for professional engineers. EPA would be failing in its mandate to protect human health and the environment if it overlooked the opportunity before it to require licensed professional engineers to perform complex LBP activities.
- There is precedent at the federal level for requiring a PE license as a minimum credential for satisfying compliance with regulatory requirements. For example, EPA's Spill Prevention, Control, and Countermeasures (SPCC) program for managing oil spills requires a PE seal on SPCC plans (40 CFR §112.3(d)). And, a recent rule of the Occupational Safety and Health Administration (OSHA) on occupational exposure to asbestos (59 FR 40963) requires a professional engineer or certified industrial hygienist to certify Class I asbestos removal.

- **All states license professional engineers and have established mechanisms for regulating their practice. If EPA does not modify its federal regulation, and if states choose to adopt the federal program without change as their own (EPA has proposed using its federal program as a "model state program"), then PEs, who are qualified in many of the proposed work disciplines, will be required to obtain an additional certification from the state in order to provide the same LBP services that previously they could provide under the PE licensing law. Essentially, then, the state will be compelled to establish a separate LBP administrative and enforcement structure for "re-certifying" some providers that it already regulates. This is an inefficient and costly proposition that states can ill afford to undertake. It certainly merits a PE exclusion from the scope of the federal program.**
- **Imposition and enforcement of the federal certification program in those states that do not choose to adopt their own "as protective" program will lead to conflict between federal certificants and state-licensed professionals. Disputes and litigation between federal and state agencies is bound to occur if these challenges are not averted in the rulemaking.**

Proposed Rule Enables Certificants to Practice Engineering

NSPE also has concerns that the proposed regulation could provide individuals certified in specific work disciplines the appearance of authority to practice in areas beyond their expertise. By proposing seven new work certification categories, EPA is adding to an "alphabet soup" of environmental credentials that is already confusing to the public. This plethora of certifications makes it increasingly difficult to distinguish between the scopes and qualifications of certificants and professional licensees.

RECOMMENDATION: To ensure that there is no confusion on the part of certificants or the public as to the scopes of practice of these new disciplines, EPA should insert a provision into the regulation that prohibits its certificants from practicing a profession or occupation licensed by a state authority unless that certificant is also authorized by the state to practice that profession or occupation. Including this language in the rule would afford the states, the professions, and the public some protection that unlicensed individuals could be disciplined if they illegally practiced a licensed profession.

State Programs

We compliment the Agency for taking into consideration the needs of states that choose to adopt their own training and certification programs. After all, regulation of professions and occupations is a state, rather than federal responsibility. We believe that EPA has adopted a workable plan to encourage state adoption, although the federal program/model state program itself must be improved before it is disseminated for adoption by the states.

EPA has sought "comment on how to best achieve [state administration and enforcement of a lead certification program]" (59 FR 45891). The Agency even comments that "states are also encouraged to, whenever possible, utilize existing State and local certification and accreditation programs and procedures" (59 FR 45892). We heartily concur. Yet, EPA proposes no role for existing state-licensed professionals in its own regulations and states may be reluctant to do so as well, for fear that their program will not meet EPA approval criteria.

RECOMMENDATION: Since EPA acknowledges that states may already have laws in place for regulating the providers of LBP services, it should incorporate such licensing requirements into its own rule. In other words, the Agency should lead by example. If the Agency truly wishes the states to administer the program, then it will reduce the scope of practitioners to be regulated solely to those that are not already regulated by existing state laws.

In addition, EPA, in its preamble to the final rule, should amplify its guidance to states to provide them better clarification as to how they should integrate existing professional licensing laws with the new federal certification requirements. The preamble should encourage states to submit their existing professional licensing laws as programs that meet the "as protective" requirements of the statute. This guidance is particularly important if EPA opts not to require a PE seal on certain LBP plans or to provide professional engineers an exclusion under its own regulation and model state program. If this is the result of EPA's deliberation, states should at least have the opportunity to demonstrate to EPA how their existing state law is "as protective" as the federal program.

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November 4, 1994

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Conclusion

The recommendations we have proposed substantially modify the details of the approach that EPA has taken thus far. These recommendations, however, in no way weaken the regulation. In fact, they strengthen the program by ensuring that the most qualified individuals are utilized in the provision of LBP activities and that state laws aimed at protecting the public health, safety, and welfare are not ignored. Our proposed amendments to this proposed regulation (Attachment D) will still allow the Agency to comply with Congressional intent, while not needlessly impinging on the rights of states. We cannot imagine that Congress envisioned that the training and certification program should duplicate or usurp state authority to regulate professional practice.

We look forward to providing the Agency further assistance as it finalizes its regulation on lead abatement training and certification. Please do not hesitate to contact Bob Reeg in NSPE's Government Relations Department at (703) 684-2873 if you desire further information.

Sincerely,

A handwritten signature in black ink, reading "Donald G. Weinert". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Donald G. Weinert, P.E.
Executive Director



National Society of Professional Engineers

April 12, 1995

ATTN: Ms. Karen Kochenbach
Civil Works Directorate, Regulatory Branch (CECW-OR)

Lieutenant General Arthur Williams
The Chief of Engineers
United States Army Corps of Engineers
20 Massachusetts Avenue, N.W.
Washington, DC 20314-1000

Dear General Williams:

The National Society of Professional Engineers offers its comments on the proposed rule of the U.S. Army Corps of Engineers (Corps) to establish a wetland delineator certification program (WDCP). The Corps published its proposal in the March 14, 1995 *Federal Register* (60 FR 13654).

The National Society of Professional Engineers (NSPE) recommends that the Corps amend the proposed rule to establish that a wetland delineation performed by a licensed professional engineer shall receive expedited review and consideration equivalent to that provided for delineations prepared by a "certified wetland delineator." The requirements for licensure as a professional engineer, as well as the statutory and ethical obligations required of licensees, far surpass those proposed for certified wetland delineators. Accordingly, licensed professional engineers should not be required to obtain the lesser credential in order to have his or her delineations accorded expedited treatment. Our detailed comments explain the basis for NSPE's position. We strongly urge the Corps to incorporate NSPE's recommended amendments into its final WDCP rule.

The National Society of Professional Engineers (NSPE) was founded in 1934 and represents 70,000 engineers in the United States and abroad in over 500 local chapters and 52 state and territorial societies. NSPE is a broad-based interdisciplinary society representing all technical disciplines and all areas of engineering practice, including government, industry, education, private practice, and construction.

Introduction

The Water Resources Development Act of 1990 authorizes the Secretary of the Army to establish a program for the training and certification of wetland delineators. Pursuant to this authority, the Corps has issued this proposed rule, which provides for the expedited review and consideration of wetland delineations prepared by individuals who have been certified by the Corps. The proposed rule suggests as qualifications for certification that the individual obtain training in wetland delineation methodology,

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ALEXANDRIA, VIRGINIA 22314

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obtain at least two years of professional experience in wetland delineation, and pass a written examination and field practicum.

As an organization that vigorously supports the principles and practice of professional regulation, we support the intent of Congress and the Corps to ensure that individuals performing wetland delineation activities have met a minimum level of competency.

However, as it establishes the specific provisions of the WDCP, the Corps should not overlook the fact that the states already regulate, through the licensing process, some of the individuals currently engaged in wetland delineation activities.

About Professional Engineering Licensure

The regulation of professional and occupational practice through licensure is an exercise of the constitutional power of the states to protect the public health, safety, and welfare -- the so-called "police powers." Under state professional licensing statutes, individuals are granted a privilege--a public trust--to engage in an area of practice, generally to the exclusion of others, based upon demonstrated education, experience, and examination. The necessary corollary is that individuals who do not possess these qualifications should be prevented from offering such services to the public because they have not met the legally required level of professional competence.

Legislatures in all states have exercised their "police powers" with regard to the practice of engineering and have enacted licensing statutes for the profession. (A list of state professional engineering licensing law citations is attached (Attachment A).

Under state professional engineering licensing laws, an individual's competence to practice engineering is determined by subjecting him or her to a rigorous process. This process typically requires the individual to obtain a bachelor of engineering degree from an accredited engineering program, successfully complete two comprehensive examinations, and demonstrate a level of acceptable engineering experience. A typical licensing process is detailed in the attached *Model Law* of the National Council of Examiners for Engineering and Surveying (Attachment B). The *Model Law* provides state legislatures a framework for developing their individual engineering licensing statutes. Attachment C provides further detail on the education, examination, and experience requirements typical for PE licensure.

Once licensed, a professional engineer is required to practice engineering solely within his or her area of competence and to protect the public health, safety, and welfare. Licensed professional engineers are also required by state laws and state licensing board rules of professional conduct to faithfully discharge their engineering and other professional responsibilities impartially and honestly. Furthermore, state governments have and do exercise the authority to discipline licensees who fail to comply with state laws and requirements.

Rationale for the NSPE Position

Given the scientific and technical composition of engineering curriculum, the rigors of the licensing process, and the legal and ethical responsibilities that are transferred upon licensure, licensed professional engineers are prepared to provide wetland delineation services. Thus, the Corps should more fully incorporate professional engineers into the WDCP program. The following points support this recommendation.

- Licensed professional engineers currently perform wetland delineations in connection with other services they are authorized to provide under state engineering statutes. The NCEES *Model Law* and state engineering licensing statutes define the scope of activities that are within "the practice of engineering." For example, the *Model Law* definition of practice is as follows:

Practice of Engineering--The term "Practice of Engineering" within the intent of this Act shall mean any service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning, design and design coordination of engineering works and systems, planning the use of the land and water, teaching of advanced engineering subjects, performing engineering surveys and studies, and review of construction for the purpose of monitoring compliance with drawings and specifications; any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products or equipment of mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property, and including such other professional services as may be necessary to the planning, progress, and completion of any engineering services.

The state engineering statutes clearly recognize investigation, evaluation, and planning of the use of land and water as within the engineer's scope of practice.

- Wetland delineation does not fall exclusively within the scope of any one discipline. Licensed professional engineers are as qualified as other scientific and technical professionals to provide this service. However, unlike many other scientific and technical disciplines, engineers are subject to state regulation through licensing. Thus, while a wetland delineation certification program for these other disciplines may have merit, to require PEs to obtain the additional certification in order to have their wetland delineations considered expeditiously diminishes the PE license.

- The education, examination, and experience requirements for professional engineers are more rigorous than those established under the proposed rule for certified wetland delineators. Thus, a professional engineer is likely to be in a position to provide the public and the Corps even greater assurance of the quality and consistency of his or her wetland delineations than would a certified wetland delineator. Accordingly, the Corps should accord PEs the same favorable treatment as proposed for certified wetland delineators.
- There is precedent at the federal level for requiring a PE license as a minimum credential for satisfying compliance with regulatory requirements. For example, EPA's Spill Prevention, Control, and Countermeasures (SPCC) program for managing oil spills requires a PE seal on SPCC plans (40 CFR §112.3(d)). And, the Occupational Safety and Health Administration's (OSHA) rule on occupational exposure to asbestos (59 FR 40963) requires a professional engineer or certified industrial hygienist to certify Class I asbestos removal. In light of these cases where the PE is required, surely the Corps should see little difficulty in treating the PE licensee as equivalent to a certified wetland delineator.

NSPE has offered amending language to proposed 33 CFR § 325.2(c) that will ensure that licensed professional engineers are placed on a level playing field with certified wetland delineators without having to meet additional training and examination requirements on top of those they have already accomplished as part of the PE licensing system.

Proposed Rule Enables Certificants to Practice Engineering

NSPE also has concerns that the proposed regulation could provide certified wetland delineators the appearance of authority to practice in areas beyond their expertise. By proposing this additional certification category, the Corps is adding to an "alphabet soup" of environmental credentials that is already confusing to the public. This plethora of certifications makes it increasingly difficult to distinguish between the scopes and qualifications of certificants and professional licensees. To ensure that there is no confusion on the part of certificants or the public as to the scopes of practice of the new certified wetland delineator discipline, the Corps should insert a provision into the regulation that prohibits its certificants from practicing a profession or occupation licensed by a state authority unless that certificant is also authorized by the state to practice that profession or occupation. Including this language in the rule would afford the states, the professions, and the public some protection that unlicensed individuals could be disciplined if they illegally practiced a licensed profession.



National Society of Professional Engineers

May 16, 1994

The Honorable John Dingell
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

On behalf of the National Society of Professional Engineers, I am writing to seek your assistance in addressing concerns we have with a recent amendment to the Superfund Reform Act of 1994 (H.R. 3800). The amendment, *Certification of Environmental Training and Certification Organizations* (Section 610), was offered by Representative Bill Richardson (D-NM) and adopted by the Subcommittee on Transportation and Hazardous Materials at its May 11, 1994, markup of the legislation.

The National Society of Professional Engineers (NSPE) was founded in 1934 and represents 75,000 engineers in the United States and abroad in 535 local chapters and 54 state and territorial societies. NSPE is a broad-based interdisciplinary society representing all technical disciplines and all areas of practice, including government, industry, education, private practice, and construction.

As an association which vigorously supports the principles and practice of professional regulation through licensure, NSPE is interested in curbing the ability of unqualified individuals who offer environmental site assessment services. We feel that unqualified individuals, particularly those who masquerade as competent under the guise of a baseless credential, not only jeopardize the public health, safety, and welfare, but also damage the credibility of legitimate professionals. We applaud Congressman Richardson for recognizing the seriousness of the problem and for giving it the attention it deserves. We are also appreciative that the amendment he offered to H.R. 3800 is a significant improvement to related legislation (H.R. 3572) that he introduced separately. Many of the suggestions we made for improving H.R. 3572 have been incorporated into the amendment.

Additional modifications would further strengthen Representative Richardson's amendment, however. Our concerns and suggested modifications are as follows:

- The amendment could result in restricting individuals licensed under state law who have already been determined qualified to provide environmental site

The Honorable John Dingell

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assessment (ESA) services, including professional engineers, from continuing to conduct Phase I ESAs.

The amendment should be modified to specify that professions and occupations licensed by a state authority and whose scopes of practice, as defined by state law, include environmental site assessment services are not subject to the provisions of the amendment.

- The amendment could inadvertently result in unqualified individuals obtaining authority to provide engineering or other professional services, as defined by state licensing laws, without meeting state requirements regulating the practice of those professions. This could result because the amendment permits individuals deemed qualified to call themselves "certified Phase I environmental professional[s]". This title suggests that its holders are competent in the entire environmental field when in actuality, they may be able only to perform a discrete task in what may be a multi-task assignment.

The amendment should be modified to specify that "certified Phase I environmental professionals" are prohibited from practicing a licensed profession or occupation, including engineering, unless they are also licensed by a state authority to practice such profession or occupation.

- The amendment proposes a cumbersome system whereby each state that chooses to implement the voluntary program will develop a separate process for accrediting (approving) certification programs. Accordingly, these programs will be required to obtain accreditation by each participating state in which they wish their credential to be recognized. While the amendment instructs the U.S. Environmental Protection Agency to develop model guidelines for states to consider when developing such accreditation programs, it also permits states to establish procedures that are "additional or more stringent" than the model guidelines. A different procedure could result in every state. One outcome of this complexity may be that certification organizations forego presentation of their certification programs to states for voluntary accreditation, which is entirely contrary to the purpose of the amendment.

To further alleviate the possibility of each state developing unique programs, the amendment should be modified to specify that the U.S. Environmental Protection Agency's (EPA) model guidelines shall encourage states, in lieu of establishing separate accreditation programs, to delegate accreditation responsibilities to a private sector organization(s) that would administer a uniform program. This option would alleviate some of the administrative burdens on states that may result in their opting not to undertake the voluntary program. It would also facilitate participation in the voluntary program by certification organizations because they would only have to meet a single accreditation standard, rather than multiple standards.

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- The amendment establishes an advisory board for assisting the EPA in developing model program guidelines and specifies representation for public interest groups and the consumers of Phase I environmental site assessment services, but does not specify representation for licensed professionals, state regulators, or credentialing experts.

The amendment should be modified to specify that professional societies, state government, and private sector accreditation organizations shall be represented on the advisory board.

- The amendment lacks a mechanism for prohibiting unqualified individuals from providing Phase I Environmental Site Assessment services. The amendment in no way restricts the provision of Phase I ESAs solely to "certified Phase I environmental professional[s]" or other licensed professionals from continuing to offer such services. Instead the amendment merely adds an additional certification to the already perplexing array of environmental service providers.

As an alternative regulatory approach to that proposed by Representative Richardson, H.R. 3800 could instead be amended to establish a requirement that Phase I environmental site assessments conducted in connection with the scope of the legislation be provided by an individual licensed by a state authority whose scope of practice includes environmental site assessment services, or alternatively, by licensed or certified individuals determined to be qualified by the Administrator through the promulgation of rules.

I have enclosed suggested modifications to the Richardson amendment that may serve as a starting point for implementing our recommendations. We urge you to consider these modifications as Congress continues to develop the best method for curbing the proliferation of unqualified individuals in the environmental services area. If NSPE can be of further assistance, please do not hesitate to have a member of your staff contact Bob Reeg in the NSPE Government Relations Department at (703) 684-2873.

Very truly yours,



Thomas D. Hixson, P.E.-L.S.

President

National Society of Professional Engineers

Enclosure



National Society of Professional Engineers

Statement
of the
National Society of Professional Engineers
on
The Environmental Professionals Training and Certification Act
(HR 3572)
March 16, 1994

The National Society of Professional Engineers offers the following comments on the Environmental Professionals Training and Certification Act of 1993 (H.R. 3572), introduced by Congressman Bill Richardson (D-NM) on November 19, 1993.

While we are sympathetic with the legislation's aim of curbing the proliferation of unqualified individuals providing environmental site assessment services, we do not believe the regulatory program it proposes is the appropriate mechanism for doing so. As such, we cannot support H.R. 3572 as introduced.

The National Society of Professional Engineers (NSPE) was founded in 1934 and represents 75,000 engineers in the United States and abroad in 535 local chapters and 54 state and territorial societies. NSPE is a broad-based interdisciplinary society representing all technical disciplines and all areas of practice, including government, industry, education, private practice, and construction. It is with that diverse perspective that we present our comments.

Explaining his rationale for introducing H.R. 3572, Congressman Bill Richardson (D-NM), the prime sponsor of the legislation, stated in the November 20, 1993, *Congressional Record* (p. E2983), that "virtually anyone who wants to enter the growing environmental market and conduct environmental assessments on hazardous waste sites across the country can simply fill out a form and send a fee to a sham certification organization." As an association which vigorously supports the principles and practice of professional regulation through licensure, NSPE is interested in curbing the ability of such "sham" certification organizations. We feel that these certificants, who then masquerade as competent under the guise of a baseless credential, not only jeopardize the public health, safety, and welfare, but also damage the credibility of legitimate professional and occupational licensing and certification programs.

We applaud Congressman Richardson for recognizing the seriousness of the problem and for giving it the attention it deserves. Unfortunately H.R. 3572, while a sincere effort to eliminate unqualified professionals from providing environmental site assessment services, conflicts with the normal and customary procedures by which professions and occupations are currently regulated. We are concerned that the regulatory mechanism suggested in H.R. 3572 will duplicate legitimate licensing and certification procedures already established and, consequently, restrict the practice of

those individuals who have already been determined qualified to provide environmental site assessment services. In addition, the legislation may enable individuals whose training and experience limits them only to a narrow scope of practice to claim competence in a broader range of environmental services.

H.R. 3572 Preempts Authority of States

We are concerned that H.R. 3572 infringes on the traditional prerogative of state governments to regulate professions and occupations. For example, legislatures in all 50 states and the U.S. territories have enacted statutes to regulate the practice of engineering through licensure. The licensing process typically requires that individuals meet rigorous education, experience, and examination requirements in order to qualify for a professional engineering (PE) license. (A typical licensing process is detailed in the Model Law of the National Council of Examiners for Engineering and Surveying (Attachment A). The Model Law provides state legislatures a framework for developing their individual engineering licensing statutes).

The Model Law and state engineering licensing statutes define the scope of activities that are within "the practice of engineering." For example, the Model Law definition of practice is as follows:

Practice of Engineering--The term "Practice of Engineering" within the intent of this Act shall mean any service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning, design and design coordination of engineering works and systems, planning the use of the land and water, teaching of advanced engineering subjects, performing engineering surveys and studies, and review of construction for the purpose of monitoring compliance with drawings and specifications; any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products or equipment of mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property, and including such other professional services as may be necessary to the planning, progress, and completion of any engineering services.

Thus, the state engineering statutes clearly recognize environmental services as within the scope of practice, and accordingly the engineering components of an environmental site assessment are regulated by the engineering statute.

The effect that H.R. 3572 will have on licensed professional engineers, therefore, is ambiguous. The legislation requires the Administrator of the U.S. Environmental Protection Agency (EPA) to establish a certification advisory board. This board is charged with

"establish[ing] minimum standards regulating environmental training and certification organizations [either public or private] for environmental professionals performing Phase I Environmental Site Assessments." But, the legislation does not provide a definition of "environmental professional" and thus the scope of organizations that will be subject to EPA regulation is unclear. Should we assume that because the scope of practice of state engineering licensing statutes includes environmental services that the EPA will include engineering licensing boards within the category of "environmental training and certification organization"? If so, would EPA then have the authority to establish the education and training criteria for licensed professional engineers -- qualifications that are currently determined by state legislatures? If not, would licensed professional engineers be required to obtain a credential from an "approved environmental [professional] training and certification organization" in addition to a PE license in order to preserve their authority to provide environmental site assessment services? We are uncomfortable with either proposition.

Thus, the ambiguities caused by H.R. 3572 pose the potential for a considerable erosion in the authority of state legislatures to determine the qualifications for and scope of practice of licensed professional engineers. As the primary objective of H.R. 3572 appears to be the regulation of private certification organizations rather than encroachment on state authority to issue professional and occupational licenses, we would recommend, at a minimum, that it be amended to exempt licensed professional engineers (and other licensed professions whose scopes of practice also encompass aspects of environmental site assessment) from the legislation. Licensed professional engineers and other duly licensed professionals should not be restricted from conducting environmental site assessments by having to obtain an additional certification by an EPA-accredited organization.

H.R. 3572 Duplicates Private Sector Capability

The legislation offers federal government regulation as a solution to the legitimate concern that some private certification organizations offer unsubstantiated credentials. While the goal of such intervention is worthy, we feel it is unnecessary, given the existence of private sector organizations designed specifically to accomplish the same tasks charged to the certification advisory board established by H.R. 3572. Two bodies that accredit providers of certification programs are the National Commission for Certifying Agencies (NCCA) of the National Organization for Competency Assurance (NOCA), and the Council of Engineering Specialty Boards (CESB). NSPE is an associate member of CESB, which was founded for exactly the same reasons that H.R. 3572 has been introduced. (NSPE derives no financial benefit from its sponsorship). The accreditation guidelines of both these organizations (Attachments B and C) closely correspond in intent to the guidelines set forth in Section 3(b)(5)(c) of the legislation. We suggest that in a time when EPA is experiencing severe resource constraints, it may be more appropriate to meet accreditation objectives through private organizations, rather than create a duplicative organization within EPA.

While NSPE and the other sponsors of NOCA and CESB do encourage private certification organizations to submit their programs to the scrutiny of an accreditation body, many have not opted to do so because the system is voluntary. Nevertheless, we are opposed to federal government intervention as proposed by H.R. 3572 as it would further complicate a certification system that is already complex. It would also set a troublesome precedent for federal government intrusion in other state licensing and private certification programs.

Rather than circumvent or duplicate the state licensing and private certification apparatus, a more positive role the federal government could play is to provide an incentive for private certification organizations to subject their programs to private accreditation review. In the context of the limited scope of environmental site assessment services proposed for regulation in H.R. 3572, the legislation could be redrafted to instead require that Phase I environmental site assessments be conducted by 1) a professional licensed by a state authority whose scope of practice includes environmental site assessment services; or, in the absence of a state licensing statute whose scope includes environmental site assessment, 2) an individual who holds a certificate from an accredited private organization whose certification program includes environmental site assessment within its scope.

Through this alternative to the system outlined in H.R. 3572, the following would be accomplished: First, the federal government would ensure that state governments could continue to ensure that aspects of environmental site assessment that they have already deemed so crucial to the public health, safety, and welfare that licensure is required are in fact conducted by such licensed professionals. Second, the federal government would provide an incentive for private certification organizations to submit their programs for accreditation review, and as a result, weed out those programs that offer "sham" credentials through a process of "non-recognition". This "non-recognition" would put unqualified individuals out of business with little additional expense to the federal government.

H.R. 3572 Muddies Scopes of Practice

An additional area of concern we have with H.R. 3572 is that it proposes a system by which environmental site assessment services would become regulated as if it were a single task, an approach which fails to account for the complexity of environmental site assessment work. A complete environmental site assessment may require the skills of a range of professionals, primarily engineers, but also geologists, soil scientists, biologists, hydrologists, and others. Yet, the legislation suggests that a single credential will be sufficient in all cases to perform an environmental site assessment. The licensing-by-task approach also runs contrary to the licensing statutes adopted by most states, which, for practical purposes, regulate by discipline of study, training and experience, rather than by the task to be performed. This can be illustrated by examining the practice of engineering, which as was demonstrated earlier, encompasses a broad scope of activities. If engineers were to be licensed according to task, they would need to obtain hundreds of licenses. Similar scenarios could be painted for other professions. Thus licensing according to task is an burdensome and inefficient manner for regulating professions and occupations. It also results in the proliferation of credentials.

If H.R. 3572 were implemented as introduced, owners and consumers would need to evaluate a greater array of credentials when selecting a service provider. We believe this to be contrary to the intended objectives of the legislation.

Conversely, the certification system envisioned by H.R. 3572, by packaging a multi-professional environmental service as a single task activity, may provide certified individuals the mobility to practice in areas beyond their expertise. This could occur particularly because the legislation establishes a new professional title of "certified environmental site assessor," implying that the title holder is competent in the entire environmental site assessment field. In actuality, the individual may be able only to perform a discrete task. The net result is that H.R. 3572, far from curbing "sham" certification organizations, may instead provide government sanctioning of an overly-broad category that does not in fact exist.

In any approach taken for regulating environmental site assessment service providers, whether it be voluntary-based or government driven, the system must account for the multitude of professionals potentially involved in such activity. We strongly urge that any regulatory system adopted include a provision that requires individuals performing environmental site assessments to perform only those aspects of the assessment that are within the scope of practice defined by their license or certification. For example, those elements of an environmental site assessment that involve engineering judgement must be required to be performed by a licensed professional engineer.

NSPE is interested in defining the most effective mechanism for curbing the proliferation of unqualified individuals in the environmental services field. We welcome the opportunity to cooperate with interested members of Congress, the Executive branch, the states, and the private sector in an effort to ensure the shared objective of protecting the public safety, health, and welfare.

Further information on this position can be obtained by contacting Bob Reeg in the NSPE Government Relations Department at (703) 684-2873.



Guidelines for Regulatory Programs Utilizing Licensed or Certified Individuals

SUMMARY

The National Society of Professional Engineers offers the following guidelines to assist public officials in specifying the minimum qualifications, including the possession of licenses or certificates, necessary for individuals to comply with regulatory programs.

- Governmental authorities should utilize licensure as the means of determining and verifying individual competency and qualifications.
- Governmental authorities should establish licensure requirements that measure an individual's competency in a broad area of practice, rather than in a specific task.
- Governmental authorities should specify a professional or occupational license(s) as the minimum qualification(s) when the regulated activity falls uniquely within the scope of practice of that licensed profession(s) or occupation(s).
- Governmental authorities, when specifying a license as the minimum qualification, should also specify that the individual be licensed in the jurisdiction in which the regulated activity occurs.
- Governmental authorities should not restrict the performance of a regulated activity solely to licensed individuals serving as an independent professional to the exclusion of licensees who are employees of the regulated entity.
- Governmental authorities should not require licensees to obtain additional licenses or certificates or specialized education or training beyond that required for the license in order to continue providing services that they are already authorized to provide under the licensure law that regulates them.
- Governmental authorities should not restrict the performance of a regulated activity to a single profession or occupation when the regulated activity falls within the scopes of practice of multiple groups.
- Governmental authorities should not permit any unlicensed individual to provide services that fall within the scope of practice of a licensed profession or occupation.
- Governmental authorities, when electing to use certification as a measure of minimum competency, should select only those certificates that have been granted by organizations whose certification processes have been accredited by a private, nationally-recognized, not-for-profit accreditation organization, or which have been determined by the governmental authority to meet criteria substantially equivalent to those used by a private accreditation organization.



Guidelines for Regulatory Programs Utilizing Licensed or Certified Individuals

Approved by the NSPE Legislative and Government Affairs Committee - 4/20/96

The National Society of Professional Engineers supports efforts by all levels of government to mandate that services necessary for compliance with the law are provided solely by qualified individuals. Accordingly, NSPE welcomes statutory or regulatory provisions that specify the minimum qualifications, including the possession of licenses or certificates, necessary for the performance of such services.

The National Society of Professional Engineers offers the following guidelines to assist public officials in specifying the qualifications necessary for compliance with regulatory programs. NSPE also will use these guidelines to evaluate regulatory programs that include qualifications requirements.

- Governmental authorities should recognize that there are several distinct processes to determine the minimum competency of individuals. The legal and substantive distinctions between these processes are not always understood by those evaluating their applicability to a given program. Unfortunately, governmental authorities, private organizations, and professions and occupations themselves have added to the confusion by misassigning terms to the credentialing processes selected for their profession or occupation. To clarify these misunderstandings, NSPE urges that governmental authorities and the private sector, when determining minimum qualifications, utilize the appropriate terminology to categorize the credentialing process selected. Distinctions should be made as follows:
 - “Licensure” is the process whereby a governmental authority, in accordance with state statute, determines the competency of individuals seeking to perform certain services. Through licensure, state governments grant individuals the authority to engage in an area of practice, generally to the exclusion of others, based on demonstrated education, experience, and examination. Licensees are required by law and code of ethics to faithfully discharge their responsibilities impartially and honestly. As a general rule, state governments possess the authority to discipline licensees who fail to comply with statutes and regulations and to take action against unlicensed individuals who practice within the scope of a licensed profession or occupation.
 - “Certification,” unlike licensure (which is authorized by state statute), is the process whereby a profession or occupation voluntarily establishes competency standards for itself. Certification plays a helpful role in protecting the public, especially in cases where the state legislatures have not opted to regulate the profession or occupation through licensure. However, there are broad variations in this voluntary process. Some certification organizations require the completion of rigorous education,

experience, and examination criteria. Others unfortunately do not. The private sector has established organizations to review and verify (accredit) the integrity of these certification programs. Certification organizations are not required to submit their programs to such accreditation. Also, unlike licensing authorities, certification organizations lack the authority to limit incompetent or illegal practice. Some national and state regulatory programs utilize the term “certification” to describe what are essentially licensure processes.

- “Registration” is the process by which an individual is listed as eligible to provide a regulated service, but not all registration processes require the demonstration of competency in that service. For historical reasons, some “licensed” professions and occupations (such as registered nurses, who are actually licensed) have embraced the term “registration” to describe their status.
- Governmental authorities should utilize licensure as the means of determining and verifying individual competency and qualifications. The establishment of procedures separate from this recognized credentialing process is not the most efficient or effective alternative and may lead to dilution and confusion. However, governmental authorities may choose to recognize or develop competency determination processes other than licensure when no license has been established to measure competency in the activity subject to regulation, or when the regulated activity is so general in scope as to be indistinguishable as a separate discipline of professional or occupational practice.
- The regulation of individuals through licensure generally falls within the province of state governments rather than the national government. Licensure is an exercise of constitutional police powers reserved for the states to protect the public health, safety, and welfare. Thus, it is inappropriate for the national government to establish licensure requirements or to mandate that the states do so. This includes the establishment of licenses (sometimes erroneously termed “certificates”) that are specially crafted in order for individuals to comply with and to be solely applicable to a discrete national statutory or regulatory objective.
- The establishment of individual competency standards through certification falls within the province of the private sector, rather than state government. When a state governmental authority establishes qualifications standards it should call this process “licensure” rather than “certification.”
- State governmental authorities should establish licensure requirements that measure an individual’s competency in a broad area of practice, rather than in a specific task. Task-based licensure tends to erect artificial barriers that act to prohibit otherwise qualified individuals from practice without obtaining numerous additional licenses. Additionally, task-based licensure impinges on existing licensed professions and occupations.

- Governmental authorities should specify a professional or occupational license(s) as the minimum qualification when the regulated activity falls uniquely within the scope of practice of that licensed profession(s) or occupation(s).
- Governmental authorities, when specifying a license as the minimum qualification, should also specify that the individual be licensed in the jurisdiction in which the regulated activity occurs. Each state must retain the right to regulate professional or occupational practice in the state according to its laws. Existing comity procedures offer individuals protection from undue duplicative licensure.
- Governmental authorities should not require licensees to obtain additional licenses or certificates or specialized education or training beyond that required for the license in order to continue providing services that they are already authorized to provide under the licensure law that regulates them.
- Governmental authorities should not restrict the performance of a regulated activity to a single profession or occupation when the regulated activity falls within the scopes of practice of multiple groups.
- Governmental authorities should not restrict the performance of a regulated activity solely to licensed individuals serving as an independent professional to the exclusion of licensees who are employees of the regulated entity. All licensees, no matter whom their employer, are required by state laws and codes of ethics to faithfully discharge their responsibilities impartially and honestly.
- Governmental authorities should not permit any unlicensed individual to provide services that fall within the scope of practice of a licensed profession or occupation. To strengthen the commitment to this principle, governmental authorities should include in statutes or regulations a provision that emphasizes that individuals are prohibited from practicing within the scope of a licensed profession or occupation unless licensed.
- Governmental authorities, when electing to use certification as a measure of minimum competency, should select only those certificates that have been granted by organizations whose certification processes have been accredited by a private, nationally-recognized, not-for-profit accreditation organization, or which have been determined by the governmental authority to meet criteria substantially equivalent to those used by a private accreditation organization.
- Governmental authorities should consult at a minimum with state licensing authorities, professional societies, and accreditation organizations when establishing minimum qualifications of individuals.



National Society of Professional Engineers

November 4, 1994

RE: Docket Number OPPTS-62128
TSCA Public Docket Office (7407)
Office of Pollution Prevention and Toxics
Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

The National Society of Professional Engineers (NSPE) offers its comments on a proposed rule of the U.S. Environmental Protection Agency (EPA) pertaining to training and certification requirements for individuals conducting lead-based paint activities. The Agency published its proposal in the September 2, 1994, *Federal Register* (59 FR 45872).

Our overriding concern is that this rule will conflict with the regulation of the practice of engineering, as governed by state law. The proposed rule creates federal certification categories for certain types of engineering work that are regulated by state professional engineering licensing statutes. Thus, the proposed rule could result in unqualified individuals practicing engineering without first obtaining a professional engineering license. Our detailed comments include an analysis of the flaws of the proposed regulation and specific recommendations to correct these deficiencies. We strongly urge EPA to incorporate NSPE's recommendations into its final rule.

The National Society of Professional Engineers (NSPE) was founded in 1934 and represents 70,000 engineers in the United States and abroad in 535 local chapters and 54 state and territorial societies. NSPE is a broad-based interdisciplinary society representing all technical disciplines and all areas of engineering practice, including government, industry, education, private practice, and construction.

Introduction

The Lead-Based Paint Hazard Reduction Act of 1992 and EPA's proposed rule broadly define lead-based paint (LBP) activities to include investigation, risk assessment, abatement, deleading, removal, and demolition. This range of tasks involves individuals with varying skills, experiences, and education, including contractors, technicians, and licensed professionals. As an association that vigorously supports the principles and practice of professional regulation through licensure, we support the intent of Congress to ensure that individuals performing LBP activities

have met a minimum level of competency. However, when establishing training and certification requirements for individuals engaged in LBP activities, Congress (and now EPA) overlooked one simple fact -- the states already regulate, through professional engineering licensure, some of the individuals currently engaged in LBP activities.

About Professional Engineering Licensure

The regulation of professional and occupational practice through licensure is an exercise of the constitutional power of the states to protect the public health, safety, and welfare -- the so-called "police powers." Under state professional licensing statutes, individuals are granted a privilege--a public trust--to engage in an area of practice, generally to the exclusion of others, based upon demonstrated education, experience, and examination. The necessary corollary is that individuals who do not possess these qualifications should be prevented from offering such services to the public because they have not met the legally required level of professional competence.

Legislatures in all states have exercised their "police powers" with regard to the practice of engineering and have enacted licensing statutes for the profession. (A list of state professional engineering licensing law citations is attached (Attachment A).

Under state professional engineering licensing laws, an individual's competence to practice engineering is determined by subjecting him or her to a rigorous process. This process typically requires the individual to obtain a bachelor of engineering degree from an accredited engineering program, successfully complete two comprehensive examinations, and demonstrate a level of acceptable engineering experience. A typical licensing process is detailed in the attached *Model Law* of the National Council of Examiners for Engineering and Surveying (Attachment B). The *Model Law* provides state legislatures a framework for developing their individual engineering licensing statutes. (If the Agency wishes to examine the engineering licensing statutes of particular states, NSPE would be happy to provide assistance in obtaining them.) Attachment C provides further detail on the education, examination, and experience requirements typical for PE licensure.

Once licensed, a professional engineer is required to practice engineering solely within his or her area of competence and to protect the public health, safety, and welfare. Licensed professional engineers are also required by state laws and state licensing board rules of professional conduct to faithfully discharge their engineering responsibilities impartially and honestly. Furthermore, state governments have and do exercise the authority to discipline licensees who fail to comply with state laws and requirements.

The Engineer's Role in Lead-based Paint Activities

The NCEES *Model Law* and state engineering licensing statutes define the scope of activities that are within "the practice of engineering." For example, the *Model Law* definition of practice is as follows:

Practice of Engineering--The term "Practice of Engineering" within the intent of this Act shall mean any service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning, design and design coordination of engineering works and systems, planning the use of the land and water, teaching of advanced engineering subjects, performing engineering surveys and studies, and review of construction for the purpose of monitoring compliance with drawings and specifications; any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products or equipment of mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property, and including such other professional services as may be necessary to the planning, progress, and completion of any engineering services.

The state engineering statutes clearly recognize investigation, evaluation, planning, and design of buildings, structures, works, and systems as within the engineer's scope of practice.

In the lead-based paint arena, the professional engineer is engaged principally in assessment, planning, and abatement activities. Typically, the PE interprets the results of inspections and selects the technologies and methods that are appropriate and cost effective for abating the lead hazard. In many cases, the PE designs the equipment and techniques for LBP removal. The PE designs the containment structures and ventilation systems used to collect, clean, handle, or dispose the lead material. The PE also may manage the overall project on the owner's behalf, including establishing project specifications, estimating costs and schedules, assigning tasks, and ensuring that owner requirements as well as federal, state, and local laws are met. Each of these activities is regulated by state PE licensing laws.

Proposed Rule Overlaps Engineering Licensure

EPA, in this rulemaking, proposes to regulate activities that are already regulated by state professional engineering licensing statutes. If this overlap is left unaddressed in the final rule, EPA will have set the stage for conflict between federal and state authorities. EPA proposes to require training and certification of seven LBP "work disciplines" and to restrict LBP activities solely to those individuals who have met their requirements. It is NSPE's position that the responsibilities assigned to four of the proposed work disciplines (certified supervisor for commercial buildings and superstructures, certified supervisor for target housing and public buildings, certified planner/project designer for target housing and public buildings, and certified inspector/risk assessor for target housing and public buildings) constitute the practice of engineering.

Certified Supervisor for Commercial Buildings and Superstructures

Proposed 40 CFR § 745.228(g), § 745.228(h), and § 745.228(i) specify that supervisors for commercial buildings and superstructures are responsible for developing a written deleading plan and a post-abatement report; ensuring completion of all deleading activities according to the standards of this regulation; and, ensuring that deleading and demolition activities are conducted in accordance with regulatory requirements.

These and other tasks EPA has assigned to the certified supervisor for commercial buildings and superstructures are design and project management tasks currently performed by professional engineers. For example, in its preamble to the proposed rule, the Agency states, "the deleading of a watertower or industrial warehouse calls for sophisticated rigging and scaffolding equipment and the erection of containment structures" (59 FR 45875). These types of activities fall within the practice of engineering, as defined by state law.

RECOMMENDATION: EPA should delete certification requirements for supervisors for commercial buildings and superstructures. The Agency should require instead that a licensed professional engineer be retained to perform those activities assigned to the certified supervisor in the proposed rule.

Certified Supervisor for Target Housing and Public Buildings *Certified Planner/Project Designer for Target Housing and Public Buildings*

Proposed 40 CFR § 745.228(c), § 745.228(f), and § 745.228(j) specify that certified supervisors and certified planners/project designers for target housing and public buildings are responsible for developing a written pre-abatement plan and an abatement report for each assigned unit; ensuring that abatement activities are conducted in compliance with regulatory requirements; and completing all reports under this regulation. The sole distinction the

Agency makes between the supervisor and planner/project designer disciplines is that the supervisor is limited to projects of less than ten units.

It is NSPE's position that both the certified supervisor and certified planner/project designer categories overlap state PE licensing laws. For example, in the preamble the agency describes a "typical" abatement project as involving "one or more of the following techniques:...building component replacement..." (59 FR 45886). Proposed 40 CFR § 745.223 defines "building component to include "specific design or structural elements or fixtures of a building..." (emphasis added). Thus the preamble and the proposed rule clearly establish that abatement projects may include design or structural activities.

The design of structures and buildings is one of the principal activities delegated to licensed professional engineers and other design professionals by state government. We have grave concerns that the proposed rule authorizes unlicensed individuals to make recommendations and perform work that affect structural elements of buildings and structures. By authorizing such activity, EPA would be enabling its certificants to violate state professional licensing laws.

Furthermore, NSPE questions the agency's decision to establish two tiers of certification for target housing and public buildings, distinguished solely by building size. Occupants and workers in single-family housing or small multi-family dwellings deserve no less protection from lead hazards than do occupants and workers in larger dwellings and public buildings.

RECOMMENDATION: EPA should delete certification for supervisors and planners/project designers for target housing and public buildings. The Agency should require instead that a licensed professional engineer be retained to perform those activities assigned to the certified supervisor and certified planner/project designer in the proposed rule.

Also, it is the position of NSPE that all individuals exposed to LBP hazards should be afforded equal protection, regardless of the size of the abatement project. On this basis alone, the supervisor category should be eliminated.

Certified Inspector/Risk Assessor for Target Housing and Public Buildings

Proposed 40 CFR § 745.228(b) specifies that certified inspectors/risk assessors are responsible for conducting an inspection for lead-based paint in target housing and in public buildings; completing an inspection report; taking post-abatement soil and dust clearance samples; conducting a risk assessment and other lead hazard assessment activities; completing a risk assessment report; interpreting the results of inspections and assessments; identifying hazard control strategies to reduce or eliminate lead exposures; and conducting post-abatement soil and dust clearance sampling and evaluating the results.

It is NSPE's position that the duties underlined above fall within the scope of practice of licensed professional engineers. While technicians do play a critical role in conducting tests and evaluating the severity of lead hazards based on such investigations, individuals at the technician level do not have the full range of education and experience necessary to prepare abatement options, nor are they licensed to recommend options that affect structures. Under state law, this task is assigned to licensed design professionals.

RECOMMENDATION: EPA should amend the proposed scope of practice for certified inspectors/risk assessors to delete references to "providing options for reducing lead-based paint hazards with a rationale for those options." Instead, the Agency should specify that such tasks are to be performed by a licensed professional engineer.

Rationale for the NSPE Position

State professional engineering licensing laws clearly regulate many of the same LBP activities that have been swept under the umbrella of the EPA training and certification proposed rule. For this reason alone, the Agency must reexamine its proposed rule and correct the overlap between the federal program and state requirements. While we are confident that our position is supportable on the basis of the state PE licensing laws, we offer the following additional points which further support our position.

- The education, examination, and experience requirements for professional engineers are more rigorous than those established under the proposed rule for the LBP work disciplines. Thus, requiring a professional engineer to perform certain LBP activities would provide the public greater protection from lead hazards than would the proposed EPA program. For example, EPA proposes no education, experience, or examination qualifications for the planner/project designer work discipline. This pales in comparison to the rigorous standards that the states have established for professional engineers. EPA would be failing in its mandate to protect human health and the environment if it overlooked the opportunity before it to require licensed professional engineers to perform complex LBP activities.
- There is precedent at the federal level for requiring a PE license as a minimum credential for satisfying compliance with regulatory requirements. For example, EPA's Spill Prevention, Control, and Countermeasures (SPCC) program for managing oil spills requires a PE seal on SPCC plans (40 CFR §112.3(d)). And, a recent rule of the Occupational Safety and Health Administration (OSHA) on occupational exposure to asbestos (59 FR 40963) requires a professional engineer or certified industrial hygienist to certify Class I asbestos removal.

- **All states license professional engineers and have established mechanisms for regulating their practice. If EPA does not modify its federal regulation, and if states choose to adopt the federal program without change as their own (EPA has proposed using its federal program as a "model state program"), then PEs, who are qualified in many of the proposed work disciplines, will be required to obtain an additional certification from the state in order to provide the same LBP services that previously they could provide under the PE licensing law. Essentially, then, the state will be compelled to establish a separate LBP administrative and enforcement structure for "re-certifying" some providers that it already regulates. This is an inefficient and costly proposition that states can ill afford to undertake. It certainly merits a PE exclusion from the scope of the federal program.**
- Imposition and enforcement of the federal certification program in those states that do not choose to adopt their own "as protective" program will lead to conflict between federal certificants and state-licensed professionals. Disputes and litigation between federal and state agencies is bound to occur if these challenges are not averted in the rulemaking.

Proposed Rule Enables Certificants to Practice Engineering

NSPE also has concerns that the proposed regulation could provide individuals certified in specific work disciplines the appearance of authority to practice in areas beyond their expertise. By proposing seven new work certification categories, EPA is adding to an "alphabet soup" of environmental credentials that is already confusing to the public. This plethora of certifications makes it increasingly difficult to distinguish between the scopes and qualifications of certificants and professional licensees.

RECOMMENDATION: To ensure that there is no confusion on the part of certificants or the public as to the scopes of practice of these new disciplines, EPA should insert a provision into the regulation that prohibits its certificants from practicing a profession or occupation licensed by a state authority unless that certificant is also authorized by the state to practice that profession or occupation. Including this language in the rule would afford the states, the professions, and the public some protection that unlicensed individuals could be disciplined if they illegally practiced a licensed profession.

State Programs

We compliment the Agency for taking into consideration the needs of states that choose to adopt their own training and certification programs. After all, regulation of professions and occupations is a state, rather than federal responsibility. We believe that EPA has adopted a workable plan to encourage state adoption, although the federal program/model state program itself must be improved before it is disseminated for adoption by the states.

EPA has sought "comment on how to best achieve [state administration and enforcement of a lead certification program]" (59 FR 45891). The Agency even comments that "states are also encouraged to, whenever possible, utilize existing State and local certification and accreditation programs and procedures" (59 FR 45892). We heartily concur. Yet, EPA proposes no role for existing state-licensed professionals in its own regulations and states may be reluctant to do so as well, for fear that their program will not meet EPA approval criteria.

RECOMMENDATION: Since EPA acknowledges that states may already have laws in place for regulating the providers of LBP services, it should incorporate such licensing requirements into its own rule. In other words, the Agency should lead by example. If the Agency truly wishes the states to administer the program, then it will reduce the scope of practitioners to be regulated solely to those that are not already regulated by existing state laws.

In addition, EPA, in its preamble to the final rule, should amplify its guidance to states to provide them better clarification as to how they should integrate existing professional licensing laws with the new federal certification requirements. The preamble should encourage states to submit their existing professional licensing laws as programs that meet the "as protective" requirements of the statute. This guidance is particularly important if EPA opts not to require a PE seal on certain LBP plans or to provide professional engineers an exclusion under its own regulation and model state program. If this is the result of EPA's deliberation, states should at least have the opportunity to demonstrate to EPA how their existing state law is "as protective" as the federal program.

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November 4, 1994

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Conclusion

The recommendations we have proposed substantially modify the details of the approach that EPA has taken thus far. These recommendations, however, in no way weaken the regulation. In fact, they strengthen the program by ensuring that the most qualified individuals are utilized in the provision of LBP activities and that state laws aimed at protecting the public health, safety, and welfare are not ignored. Our proposed amendments to this proposed regulation (Attachment D) will still allow the Agency to comply with Congressional intent, while not needlessly impinging on the rights of states. We cannot imagine that Congress envisioned that the training and certification program should duplicate or usurp state authority to regulate professional practice.

We look forward to providing the Agency further assistance as it finalizes its regulation on lead abatement training and certification. Please do not hesitate to contact Bob Reeg in NSPE's Government Relations Department at (703) 684-2873 if you desire further information.

Sincerely,

A handwritten signature in cursive script, reading "Donald G. Weinert".

Donald G. Weinert, P.E.
Executive Director



National Society of Professional Engineers

April 12, 1995

ATTN: Ms. Karen Kochenbach
Civil Works Directorate, Regulatory Branch (CECW-OR)

Lieutenant General Arthur Williams
The Chief of Engineers
United States Army Corps of Engineers
20 Massachusetts Avenue, N.W.
Washington, DC 20314-1000

Dear General Williams:

The National Society of Professional Engineers offers its comments on the proposed rule of the U.S. Army Corps of Engineers (Corps) to establish a wetland delineator certification program (WDCP). The Corps published its proposal in the March 14, 1995 *Federal Register* (60 FR 13654).

The National Society of Professional Engineers (NSPE) recommends that the Corps amend the proposed rule to establish that a wetland delineation performed by a licensed professional engineer shall receive expedited review and consideration equivalent to that provided for delineations prepared by a "certified wetland delineator." The requirements for licensure as a professional engineer, as well as the statutory and ethical obligations required of licensees, far surpass those proposed for certified wetland delineators. Accordingly, licensed professional engineers should not be required to obtain the lesser credential in order to have his or her delineations accorded expedited treatment. Our detailed comments explain the basis for NSPE's position. We strongly urge the Corps to incorporate NSPE's recommended amendments into its final WDCP rule.

The National Society of Professional Engineers (NSPE) was founded in 1934 and represents 70,000 engineers in the United States and abroad in over 500 local chapters and 52 state and territorial societies. NSPE is a broad-based interdisciplinary society representing all technical disciplines and all areas of engineering practice, including government, industry, education, private practice, and construction.

Introduction

The Water Resources Development Act of 1990 authorizes the Secretary of the Army to establish a program for the training and certification of wetland delineators. Pursuant to this authority, the Corps has issued this proposed rule, which provides for the expedited review and consideration of wetland delineations prepared by individuals who have been certified by the Corps. The proposed rule suggests as qualifications for certification that the individual obtain training in wetland delineation methodology,

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obtain at least two years of professional experience in wetland delineation, and pass a written examination and field practicum.

As an organization that vigorously supports the principles and practice of professional regulation, we support the intent of Congress and the Corps to ensure that individuals performing wetland delineation activities have met a minimum level of competency. **However, as it establishes the specific provisions of the WDCP, the Corps should not overlook the fact that the states already regulate, through the licensing process, some of the individuals currently engaged in wetland delineation activities.**

About Professional Engineering Licensure

The regulation of professional and occupational practice through licensure is an exercise of the constitutional power of the states to protect the public health, safety, and welfare -- the so-called "police powers." Under state professional licensing statutes, individuals are granted a privilege--a public trust--to engage in an area of practice, generally to the exclusion of others, based upon demonstrated education, experience, and examination. The necessary corollary is that individuals who do not possess these qualifications should be prevented from offering such services to the public because they have not met the legally required level of professional competence.

Legislatures in all states have exercised their "police powers" with regard to the practice of engineering and have enacted licensing statutes for the profession. (A list of state professional engineering licensing law citations is attached (Attachment A).

Under state professional engineering licensing laws, an individual's competence to practice engineering is determined by subjecting him or her to a rigorous process. This process typically requires the individual to obtain a bachelor of engineering degree from an accredited engineering program, successfully complete two comprehensive examinations, and demonstrate a level of acceptable engineering experience. A typical licensing process is detailed in the attached *Model Law* of the National Council of Examiners for Engineering and Surveying (Attachment B). The *Model Law* provides state legislatures a framework for developing their individual engineering licensing statutes. Attachment C provides further detail on the education, examination, and experience requirements typical for PE licensure.

Once licensed, a professional engineer is required to practice engineering solely within his or her area of competence and to protect the public health, safety, and welfare. Licensed professional engineers are also required by state laws and state licensing board rules of professional conduct to faithfully discharge their engineering and other professional responsibilities impartially and honestly. Furthermore, state governments have and do exercise the authority to discipline licensees who fail to comply with state laws and requirements.

Rationale for the NSPE Position

Given the scientific and technical composition of engineering curriculum, the rigors of the licensing process, and the legal and ethical responsibilities that are transferred upon licensure, licensed professional engineers are prepared to provide wetland delineation services. Thus, the Corps should more fully incorporate professional engineers into the WDCP program. The following points support this recommendation.

- Licensed professional engineers currently perform wetland delineations in connection with other services they are authorized to provide under state engineering statutes. The NCEES *Model Law* and state engineering licensing statutes define the scope of activities that are within "the practice of engineering." For example, the *Model Law* definition of practice is as follows:

Practice of Engineering--The term "Practice of Engineering" within the intent of this Act shall mean any service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning, design and design coordination of engineering works and systems, planning the use of the land and water, teaching of advanced engineering subjects, performing engineering surveys and studies, and review of construction for the purpose of monitoring compliance with drawings and specifications; any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products or equipment of mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property, and including such other professional services as may be necessary to the planning, progress, and completion of any engineering services.

The state engineering statutes clearly recognize investigation, evaluation, and planning of the use of land and water as within the engineer's scope of practice.

- Wetland delineation does not fall exclusively within the scope of any one discipline. Licensed professional engineers are as qualified as other scientific and technical professionals to provide this service. However, unlike many other scientific and technical disciplines, engineers are subject to state regulation through licensing. Thus, while a wetland delineation certification program for these other disciplines may have merit, to require PEs to obtain the additional certification in order to have their wetland delineations considered expeditiously diminishes the PE license.

- The education, examination, and experience requirements for professional engineers are more rigorous than those established under the proposed rule for certified wetland delineators. Thus, a professional engineer is likely to be in a position to provide the public and the Corps even greater assurance of the quality and consistency of his or her wetland delineations than would a certified wetland delineator. Accordingly, the Corps should accord PEs the same favorable treatment as proposed for certified wetland delineators.
- There is precedent at the federal level for requiring a PE license as a minimum credential for satisfying compliance with regulatory requirements. For example, EPA's Spill Prevention, Control, and Countermeasures (SPCC) program for managing oil spills requires a PE seal on SPCC plans (40 CFR §112.3(d)). And, the Occupational Safety and Health Administration's (OSHA) rule on occupational exposure to asbestos (59 FR 40963) requires a professional engineer or certified industrial hygienist to certify Class I asbestos removal. In light of these cases where the PE is required, surely the Corps should see little difficulty in treating the PE licensee as equivalent to a certified wetland delineator.

NSPE has offered amending language to proposed 33 CFR § 325.2(c) that will ensure that licensed professional engineers are placed on a level playing field with certified wetland delineators without having to meet additional training and examination requirements on top of those they have already accomplished as part of the PE licensing system.

Proposed Rule Enables Certificants to Practice Engineering

NSPE also has concerns that the proposed regulation could provide certified wetland delineators the appearance of authority to practice in areas beyond their expertise. By proposing this additional certification category, the Corps is adding to an "alphabet soup" of environmental credentials that is already confusing to the public. This plethora of certifications makes it increasingly difficult to distinguish between the scopes and qualifications of certificants and professional licensees. To ensure that there is no confusion on the part of certificants or the public as to the scopes of practice of the new certified wetland delineator discipline, the Corps should insert a provision into the regulation that prohibits its certificants from practicing a profession or occupation licensed by a state authority unless that certificant is also authorized by the state to practice that profession or occupation. Including this language in the rule would afford the states, the professions, and the public some protection that unlicensed individuals could be disciplined if they illegally practiced a licensed profession.



National Society of Professional Engineers

May 16, 1994

The Honorable John Dingell
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

On behalf of the National Society of Professional Engineers, I am writing to seek your assistance in addressing concerns we have with a recent amendment to the Superfund Reform Act of 1994 (H.R. 3800). The amendment, *Certification of Environmental Training and Certification Organizations* (Section 610), was offered by Representative Bill Richardson (D-NM) and adopted by the Subcommittee on Transportation and Hazardous Materials at its May 11, 1994, markup of the legislation.

The National Society of Professional Engineers (NSPE) was founded in 1934 and represents 75,000 engineers in the United States and abroad in 535 local chapters and 54 state and territorial societies. NSPE is a broad-based interdisciplinary society representing all technical disciplines and all areas of practice, including government, industry, education, private practice, and construction.

As an association which vigorously supports the principles and practice of professional regulation through licensure, NSPE is interested in curbing the ability of unqualified individuals who offer environmental site assessment services. We feel that unqualified individuals, particularly those who masquerade as competent under the guise of a baseless credential, not only jeopardize the public health, safety, and welfare, but also damage the credibility of legitimate professionals. We applaud Congressman Richardson for recognizing the seriousness of the problem and for giving it the attention it deserves. We are also appreciative that the amendment he offered to H.R. 3800 is a significant improvement to related legislation (H.R. 3572) that he introduced separately. Many of the suggestions we made for improving H.R. 3572 have been incorporated into the amendment.

Additional modifications would further strengthen Representative Richardson's amendment, however. Our concerns and suggested modifications are as follows:

- The amendment could result in restricting individuals licensed under state law who have already been determined qualified to provide environmental site

The Honorable John Dingell
May 16, 1994
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assessment (ESA) services, including professional engineers, from continuing to conduct Phase I ESAs.

The amendment should be modified to specify that professions and occupations licensed by a state authority and whose scopes of practice, as defined by state law, include environmental site assessment services are not subject to the provisions of the amendment.

- The amendment could inadvertently result in unqualified individuals obtaining authority to provide engineering or other professional services, as defined by state licensing laws, without meeting state requirements regulating the practice of those professions. This could result because the amendment permits individuals deemed qualified to call themselves "certified Phase I environmental professional[s]". This title suggests that its holders are competent in the entire environmental field when in actuality, they may be able only to perform a discrete task in what may be a multi-task assignment.

The amendment should be modified to specify that "certified Phase I environmental professionals" are prohibited from practicing a licensed profession or occupation, including engineering, unless they are also licensed by a state authority to practice such profession or occupation.

- The amendment proposes a cumbersome system whereby each state that chooses to implement the voluntary program will develop a separate process for accrediting (approving) certification programs. Accordingly, these programs will be required to obtain accreditation by each participating state in which they wish their credential to be recognized. While the amendment instructs the U.S. Environmental Protection Agency to develop model guidelines for states to consider when developing such accreditation programs, it also permits states to establish procedures that are "additional or more stringent" than the model guidelines. A different procedure could result in every state. One outcome of this complexity may be that certification organizations forego presentation of their certification programs to states for voluntary accreditation, which is entirely contrary to the purpose of the amendment.

To further alleviate the possibility of each state developing unique programs, the amendment should be modified to specify that the U.S. Environmental Protection Agency's (EPA) model guidelines shall encourage states, in lieu of establishing separate accreditation programs, to delegate accreditation responsibilities to a private sector organization(s) that would administer a uniform program. This option would alleviate some of the administrative burdens on states that may result in their opting not to undertake the voluntary program. It would also facilitate participation in the voluntary program by certification organizations because they would only have to meet a single accreditation standard, rather than multiple standards.

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May 16, 1994
Page Three

- The amendment establishes an advisory board for assisting the EPA in developing model program guidelines and specifies representation for public interest groups and the consumers of Phase I environmental site assessment services, but does not specify representation for licensed professionals, state regulators, or credentialing experts.

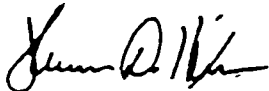
The amendment should be modified to specify that professional societies, state government, and private sector accreditation organizations shall be represented on the advisory board.

- The amendment lacks a mechanism for prohibiting unqualified individuals from providing Phase I Environmental Site Assessment services. The amendment in no way restricts the provision of Phase I ESAs solely to "certified Phase I environmental professional[s]" or other licensed professionals from continuing to offer such services. Instead the amendment merely adds an additional certification to the already perplexing array of environmental service providers.

As an alternative regulatory approach to that proposed by Representative Richardson, H.R. 3800 could instead be amended to establish a requirement that Phase I environmental site assessments conducted in connection with the scope of the legislation be provided by an individual licensed by a state authority whose scope of practice includes environmental site assessment services, or alternatively, by licensed or certified individuals determined to be qualified by the Administrator through the promulgation of rules.

I have enclosed suggested modifications to the Richardson amendment that may serve as a starting point for implementing our recommendations. We urge you to consider these modifications as Congress continues to develop the best method for curbing the proliferation of unqualified individuals in the environmental services area. If NSPE can be of further assistance, please do not hesitate to have a member of your staff contact Bob Reeg in the NSPE Government Relations Department at (703) 684-2873.

Very truly yours,



Thomas D. Hixson, P.E.-L.S.
President
National Society of Professional Engineers

Enclosure



National Society of Professional Engineers

Statement
of the
National Society of Professional Engineers
on
The Environmental Professionals Training and Certification Act
(HR 3572)
March 16, 1994

The National Society of Professional Engineers offers the following comments on the Environmental Professionals Training and Certification Act of 1993 (H.R. 3572), introduced by Congressman Bill Richardson (D-NM) on November 19, 1993.

While we are sympathetic with the legislation's aim of curbing the proliferation of unqualified individuals providing environmental site assessment services, we do not believe the regulatory program it proposes is the appropriate mechanism for doing so. As such, we cannot support H.R. 3572 as introduced.

The National Society of Professional Engineers (NSPE) was founded in 1934 and represents 75,000 engineers in the United States and abroad in 535 local chapters and 54 state and territorial societies. NSPE is a broad-based interdisciplinary society representing all technical disciplines and all areas of practice, including government, industry, education, private practice, and construction. It is with that diverse perspective that we present our comments.

Explaining his rationale for introducing H.R. 3572, Congressman Bill Richardson (D-NM), the prime sponsor of the legislation, stated in the November 20, 1993, *Congressional Record* (p. E2983), that "virtually anyone who wants to enter the growing environmental market and conduct environmental assessments on hazardous waste sites across the country can simply fill out a form and send a fee to a sham certification organization." As an association which vigorously supports the principles and practice of professional regulation through licensure, NSPE is interested in curbing the ability of such "sham" certification organizations. We feel that these certificants, who then masquerade as competent under the guise of a baseless credential, not only jeopardize the public health, safety, and welfare, but also damage the credibility of legitimate professional and occupational licensing and certification programs.

We applaud Congressman Richardson for recognizing the seriousness of the problem and for giving it the attention it deserves. Unfortunately H.R. 3572, while a sincere effort to eliminate unqualified professionals from providing environmental site assessment services, conflicts with the normal and customary procedures by which professions and occupations are currently regulated. We are concerned that the regulatory mechanism suggested in H.R. 3572 will duplicate legitimate licensing and certification procedures already established and, consequently, restrict the practice of

those individuals who have already been determined qualified to provide environmental site assessment services. In addition, the legislation may enable individuals whose training and experience limits them only to a narrow scope of practice to claim competence in a broader range of environmental services.

H.R. 3572 Preempts Authority of States

We are concerned that H.R. 3572 infringes on the traditional prerogative of state governments to regulate professions and occupations. For example, legislatures in all 50 states and the U.S. territories have enacted statutes to regulate the practice of engineering through licensure. The licensing process typically requires that individuals meet rigorous education, experience, and examination requirements in order to qualify for a professional engineering (PE) license. (A typical licensing process is detailed in the Model Law of the National Council of Examiners for Engineering and Surveying (Attachment A). The Model Law provides state legislatures a framework for developing their individual engineering licensing statutes).

The Model Law and state engineering licensing statutes define the scope of activities that are within "the practice of engineering." For example, the Model Law definition of practice is as follows:

Practice of Engineering--The term "Practice of Engineering" within the intent of this Act shall mean any service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning, design and design coordination of engineering works and systems, planning the use of the land and water, teaching of advanced engineering subjects, performing engineering surveys and studies, and review of construction for the purpose of monitoring compliance with drawings and specifications; any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products or equipment of mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property, and including such other professional services as may be necessary to the planning, progress, and completion of any engineering services.

Thus, the state engineering statutes clearly recognize environmental services as within the scope of practice, and accordingly the engineering components of an environmental site assessment are regulated by the engineering statute.

The effect that H.R. 3572 will have on licensed professional engineers, therefore, is ambiguous. The legislation requires the Administrator of the U.S. Environmental Protection Agency (EPA) to establish a certification advisory board. This board is charged with

"establish[ing] minimum standards regulating environmental training and certification organizations [either public or private] for environmental professionals performing Phase I Environmental Site Assessments." But, the legislation does not provide a definition of "environmental professional" and thus the scope of organizations that will be subject to EPA regulation is unclear. Should we assume that because the scope of practice of state engineering licensing statutes includes environmental services that the EPA will include engineering licensing boards within the category of "environmental training and certification organization"? If so, would EPA then have the authority to establish the education and training criteria for licensed professional engineers -- qualifications that are currently determined by state legislatures? If not, would licensed professional engineers be required to obtain a credential from an "approved environmental [professional] training and certification organization" in addition to a PE license in order to preserve their authority to provide environmental site assessment services? We are uncomfortable with either proposition.

Thus, the ambiguities caused by H.R. 3572 pose the potential for a considerable erosion in the authority of state legislatures to determine the qualifications for and scope of practice of licensed professional engineers. As the primary objective of H.R. 3572 appears to be the regulation of private certification organizations rather than encroachment on state authority to issue professional and occupational licenses, we would recommend, at a minimum, that it be amended to exempt licensed professional engineers (and other licensed professions whose scopes of practice also encompass aspects of environmental site assessment) from the legislation. Licensed professional engineers and other duly licensed professionals should not be restricted from conducting environmental site assessments by having to obtain an additional certification by an EPA-accredited organization.

H.R. 3572 Duplicates Private Sector Capability

The legislation offers federal government regulation as a solution to the legitimate concern that some private certification organizations offer unsubstantiated credentials. While the goal of such intervention is worthy, we feel it is unnecessary, given the existence of private sector organizations designed specifically to accomplish the same tasks charged to the certification advisory board established by H.R. 3572. Two bodies that accredit providers of certification programs are the National Commission for Certifying Agencies (NCCA) of the National Organization for Competency Assurance (NOCA), and the Council of Engineering Specialty Boards (CESB). NSPE is an associate member of CESB, which was founded for exactly the same reasons that H.R. 3572 has been introduced. (NSPE derives no financial benefit from its sponsorship). The accreditation guidelines of both these organizations (Attachments B and C) closely correspond in intent to the guidelines set forth in Section 3(b)(5)(c) of the legislation. We suggest that in a time when EPA is experiencing severe resource constraints, it may be more appropriate to meet accreditation objectives through private organizations, rather than create a duplicative organization within EPA.

While NSPE and the other sponsors of NOCA and CESB do encourage private certification organizations to submit their programs to the scrutiny of an accreditation body, many have not opted to do so because the system is voluntary. Nevertheless, we are opposed to federal government intervention as proposed by H.R. 3572 as it would further complicate a certification system that is already complex. It would also set a troublesome precedent for federal government intrusion in other state licensing and private certification programs.

Rather than circumvent or duplicate the state licensing and private certification apparatus, a more positive role the federal government could play is to provide an incentive for private certification organizations to subject their programs to private accreditation review. In the context of the limited scope of environmental site assessment services proposed for regulation in H.R. 3572, the legislation could be redrafted to instead require that Phase I environmental site assessments be conducted by 1) a professional licensed by a state authority whose scope of practice includes environmental site assessment services; or, in the absence of a state licensing statute whose scope includes environmental site assessment, 2) an individual who holds a certificate from an accredited private organization whose certification program includes environmental site assessment within its scope.

Through this alternative to the system outlined in H.R. 3572, the following would be accomplished: First, the federal government would ensure that state governments could continue to ensure that aspects of environmental site assessment that they have already deemed so crucial to the public health, safety, and welfare that licensure is required are in fact conducted by such licensed professionals. Second, the federal government would provide an incentive for private certification organizations to submit their programs for accreditation review, and as a result, weed out those programs that offer "sham" credentials through a process of "non-recognition". This "non-recognition" would put unqualified individuals out of business with little additional expense to the federal government.

H.R. 3572 Muddies Scopes of Practice

An additional area of concern we have with H.R. 3572 is that it proposes a system by which environmental site assessment services would become regulated as if it were a single task, an approach which fails to account for the complexity of environmental site assessment work. A complete environmental site assessment may require the skills of a range of professionals, primarily engineers, but also geologists, soil scientists, biologists, hydrologists, and others. Yet, the legislation suggests that a single credential will be sufficient in all cases to perform an environmental site assessment. The licensing-by-task approach also runs contrary to the licensing statutes adopted by most states, which, for practical purposes, regulate by discipline of study, training and experience, rather than by the task to be performed. This can be illustrated by examining the practice of engineering, which as was demonstrated earlier, encompasses a broad scope of activities. If engineers were to be licensed according to task, they would need to obtain hundreds of licenses. Similar scenarios could be painted for other professions. Thus licensing according to task is an burdensome and inefficient manner for regulating professions and occupations. It also results in the proliferation of credentials.

If H.R. 3572 were implemented as introduced, owners and consumers would need to evaluate a greater array of credentials when selecting a service provider. We believe this to be contrary to the intended objectives of the legislation.

Conversely, the certification system envisioned by H.R. 3572, by packaging a multi-professional environmental service as a single task activity, may provide certified individuals the mobility to practice in areas beyond their expertise. This could occur particularly because the legislation establishes a new professional title of "certified environmental site assessor," implying that the title holder is competent in the entire environmental site assessment field. In actuality, the individual may be able only to perform a discrete task. The net result is that H.R. 3572, far from curbing "sham" certification organizations, may instead provide government sanctioning of an overly-broad category that does not in fact exist.

In any approach taken for regulating environmental site assessment service providers, whether it be voluntary-based or government driven, the system must account for the multitude of professionals potentially involved in such activity. We strongly urge that any regulatory system adopted include a provision that requires individuals performing environmental site assessments to perform only those aspects of the assessment that are within the scope of practice defined by their license or certification. For example, those elements of an environmental site assessment that involve engineering judgement must be required to be performed by a licensed professional engineer.

NSPE is interested in defining the most effective mechanism for curbing the proliferation of unqualified individuals in the environmental services field. We welcome the opportunity to cooperate with interested members of Congress, the Executive branch, the states, and the private sector in an effort to ensure the shared objective of protecting the public safety, health, and welfare.

Further information on this position can be obtained by contacting Bob Reeg in the NSPE Government Relations Department at (703) 684-2873.



**National Society of
Professional Engineers**

June 6, 1996

Elizabeth Drye
Chief of Staff
Domestic Policy Council
Room 213, Old Executive Office Building
17th and Pennsylvania Avenue, N.W.
Washington, D.C. 20500

Dear Elizabeth:

It was a pleasure to meet you yesterday, and as I indicated, a pleasure working with you on the Briefing for our Executive Committee members.

The members of the Executive Committee thoroughly enjoyed the Briefing, and appreciate the efforts you and Carol put into this.

Thanks again.

Sincerely,

Charles O. Campbell
Director, Government Relations

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Number of pages including cover:

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WORK EXPERIENCE

1995-- Senator Barbara Mikulski
LEGISLATIVE ASSISTANT

Issues: **Welfare Reform:** Advised and assisted in the development of a Democratic alternative welfare reform bill; created amendments to the Dole/Republican bill.

Finance, Banking and Taxes: Recommended and drafted positions on tax and banking issues; kept the Senator informed on non-committee assignment issues.

Labor: Covered all union and workplace issues before the Senate Labor Committee.

General: Met with constituents on behalf of the Senator; drafted a range of statements on labor, welfare and business issues for placement in the Congressional Record; provided support to Senator on state visits.

1993-1994 Senator Donald W. Riegle, Jr.
LEGISLATIVE ASSISTANT

Issues: **Income Security:** Advised and represented the Senator on aging issues including Social Security and long term care; advised the Senator on child protection and welfare issues. Staffed and briefed the Senator on Finance Committee hearings.

Education: Informed the Senator on school reform efforts in Michigan. Worked with state education officials in their efforts to have input into federal reforms such as the Elementary and Secondary Education Act and Goals 2000. Recommended positions and votes on pending national education reform legislation.

Agriculture: Took over the agriculture issue on short notice; covered the agriculture budget and its impact on the Michigan agriculture industry.

General Efforts: Prepared briefings and background material for the Senator during Finance Committee hearings, drafted floor statements in support of legislation, made recommendations on co-sponsorship of legislation; developed legislation to create a Children's Ombudsman to oversee state efforts in the area of children's services.

1987-1993 Speaker of the House, Michigan, House of Representatives
LEGISLATIVE ANALYST

Provided research and background information to the Speaker of the House and all Democratic caucus members.

Issues: Aging: Worked on long term care with an emphasis on regulation of nursing homes and insurance policies; covered the state budget with an emphasis on the Medicaid and the aging department.

Substance Abuse: Analyzed the Public Health budget in the areas of drug treatment and prevention; worked on school prevention such as the "Michigan Model" and other federally funded programs.

Social Services: Monitored the department's policies on Medicaid and Social Services including children's services welfare, foster care and child protective services.

General Efforts: Provided staffing for committees, met with groups on behalf of Representatives, prepared speeches, articles and legislation. I wrote the report of the Public Health Committee on the abuse of steroids and assisted in the drafting and enactment of the steroid abuse legislation in early 1990. Developed a package of "senior" legislation in 1987 much of which dealt with insurance fraud. Assisted in the drafting of long term care insurance regulations that were enacted.

POLITICAL EXPERIENCE

1990-1992 CHAIRPERSON

KENT COUNTY DEMOCRATIC PARTY

Grand Rapids, Michigan. I was the spokesperson for the local party and the Clinton campaign. In addition I was responsible for fundraising, local organizing and candidate recruitment in a county of half-million people. In 1991-92 I coordinated and developed a strategy and plan for the re-districting of the 21 member County Commission against a Republican majority. That plan is the basis for a Voting Rights case that is now in Federal Appeals Courts after rulings in our favor.

Other political activities included being Chairperson of the Candidate Recruitment Committee in 1990 and was responsible for finding candidates to run in 17 County Commission seats, two State Senate and 4 State Representative seats. I was a volunteer on numerous campaigns working 20 to 30 hours a week. Included: Reagan for State Representative in 1990, Dukakis for President in 1988, Riegle for Senate in 1982, Blanchard for Governor in 1982 and Monsma for Congress the same year. In 1980 I was paid staff in West Michigan for the Kennedy for President campaign.

I ran for local office as the Democratic candidate for County Clerk in 1984 and a candidate for County Commissioner in 1978.

EDUCATION

Grand Valley State University

Grand Rapids, Michigan

Bachelor of Science

Major: Political Science. Minor: History

Dean's List, 1974-76