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H.R. 798, METHAMPHETAMINE REMEDIATION RESEARCH ACT OF 2005

HEARING

BEFORE THE

COMMITTEE ON SCIENCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

MARCH 3, 2005

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H.R. 798, METHAMPHETAMINE REMEDIATION RESEARCH ACT OF 2005

THURSDAY, MARCH 3, 2005

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE,
Washington, DC.

The Committee met, pursuant to call, at 10:00 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Sherwood L. Boehlert [Chairman of the Committee] presiding.

COMMITTEE ON SCIENCE
U.S. HOUSE OF REPRESENTATIVES

H.R. 798, the Methamphetamine Remediation Research Act

Thursday March 3, 2005

10:00 AM – 12:00 PM
2318 Rayburn House Office Building (WEBCAST)

Witness List

Mr. Scott Burns
Deputy Director for State and Local Affairs
Office of National Drug Control Policy

Ms. Sherry Green
Executive Director
National Alliance for Model State Drug Laws

Dr. John Martyny
Senior Industrial Hygienist
Division of Environmental and Occupational Health Sciences
National Jewish Medical and Research Center

Mr. Henry Hamilton
Assistant Commissioner, Public Protection
NYS Department of Environmental Conservation

Mr. Gary Howard
Sheriff of Tioga County, NY

Dr. Robert Bell
President
Tennessee Technological University

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HEARING CHARTER

COMMITTEE ON SCIENCE
U.S. HOUSE OF REPRESENTATIVES

H.R. 798, Methamphetamine Remediation Research Act of 2005

THURSDAY, MARCH 3, 2005
10:00 A.M.—12:00 P.M.
2318 RAYBURN HOUSE OFFICE BUILDING

1. Purpose

On Thursday, March 3, 2005, the House Science Committee will hold a hearing on H.R. 798, the *Methamphetamine Remediation Research Act of 2005,* which would establish a federal research program and a program to develop voluntary guidelines to help states clean up and deal with the environmental consequences of methamphetamine laboratories.

Methamphetamine, also known as "meth," is a highly additive, powerful nervous system stimulant. Meth abuse is a growing problem throughout the United States, and the availability of meth is particularly hard to control because the drug can be cheaply and easily manufactured in small clandestine laboratories, which are located primarily in motels, rental apartments and other residential settings. While the greatest and most obvious impacts of meth are on those who use the drug, meth labs may also harm those who come in contact with them, even after a lab is abandoned. The toxic brew involved in manufacturing meth can harm innocent parties, including first responders (such as firefighters who may become involved if a lab catches on fire—a not unusual occurrence because the chemicals used to make meth are volatile), future inhabitants of a former lab site (because chemicals may contaminate a site), and others through the environment (because chemicals may be poured down drains or otherwise enter the environment). According to the National Alliance for Model State Drug Laws, a federally-funded, nonprofit organization, environmental cleanup and remediation of residential meth labs is a top issue for many State and local governments. (Cleanup refers to the initial removal of visible chemicals and equipment from a meth lab; remediation refers to dealing with residual contamination.)

On February 15, 2005, Ranking Member Bart Gordon, Congressman Ken Calvert and Chairman Sherwood Boehlert introduced H.R. 798, the *Methamphetamine Remediation Research Act of 2005.* A summary of the bill is included in this charter.

2. Witnesses

Mr. Scott Burns is the Deputy Director for State and Local Affairs at the White House Office of National Drug Control Policy (ONDCP). Prior to his appointment, Mr. Burns served as County Attorney in Iron City, Utah for 16 years.

Ms. Sherry Green is the Executive Director for the National Alliance for Model State Drug Laws (the Alliance) in Alexandria, VA.

Dr. John Martyny is a Certified Industrial Hygienist and an Associate Professor at the National Jewish Medical and Research Center (NJMRC) in Denver, CO. Dr. Martyny is the Principal Investigator on a project to determine the exposures to law enforcement, fire and hazardous materials officers investigating methamphetamine laboratories.

Mr. Henry Hamilton is the Assistant Commissioner for Public Protection at the New York State Department of Environmental Conservation.

Mr. Gary Howard is the Sheriff of Tioga County in upstate New York.

Dr. Robert Bell is the President of Tennessee Technological University in Cookeville, TN.

3. Overarching Questions

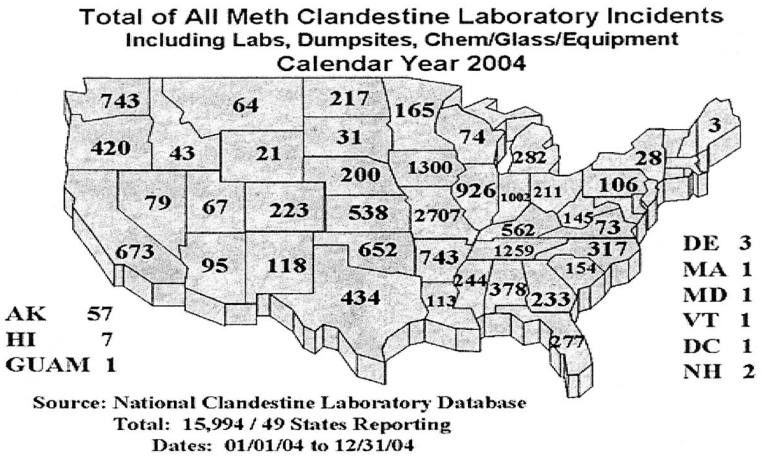
The hearing will address the following overarching questions:

- What are the environmental and the human health risks associated with former methamphetamine laboratories? When is the site of a former methamphetamine laboratory, be it a private home, an apartment or a hotel, considered "clean"?
- What are the obstacles to the effective cleanup and remediation of former methamphetamine laboratories? What policies or regulations currently guide the cleanup and remediation of these sites?
- Is there a role for the Federal Government in facilitating the cleanup and remediation of former meth labs? Is that role adequately addressed in H.R. 798?

4. Background

Methamphetamine, also known as "meth," "speed," or "crank," is a powerful stimulant that initially increases wakefulness and physical activity but can also induce symptoms ranging from extreme nervousness and hyperactivity to convulsions and irreversible brain damage. Chronic use increases drug tolerance and deepens dependence, requiring users to take higher doses more frequently. This frequently results in amphetamine psychosis, a condition characterized by extreme paranoia and bizarre, violent behavior—a key factor in the death of most meth addicts. Since the 1970s, federal regulations have limited the legal uses of meth to the treatment of a handful of conditions. Use of meth without a prescription and the manufacture of meth without appropriate permission is illegal under federal law.

The current meth abuse problem originated in California and the Southwest, where organized drug trafficking groups sold the drug. But the problem has spread considerably, with that spread facilitated by the proliferation of small labs that produce the drug for personal use and local distribution. In 1993, the Drug Enforcement Administration (DEA) estimated a total seizure of 218 meth labs. In 2003, federal, State and local law enforcement officers netted over 10,000 labs and, in 2004, almost 15,000 labs were seized. These small labs account for the majority of seizures, and they are present in every state in the U.S., taxing the resources of local law enforcement.



Of the 32 chemicals that can be used in varying combinations to make or "cook" meth, one-third are extremely toxic and many are also reactive, explosive, flammable, and corrosive. Nearly one in five labs is found because of fire or explosion, injuring or killing the individuals involved as well as the law enforcement or firefighters who respond. During use and production, meth itself and other harmful chemicals are released into the air and deposited throughout the surrounding area. Inside, these chemicals collect on countertops and floors, and they are absorbed into furnishings, carpets and walls. In addition, for every pound of meth produced, approximately five to six pounds of toxic byproducts remain. This waste is frequently poured down drains or spilled onto the ground, potentially contaminating soil, surface water, groundwater, and septic systems.

Small meth labs can be set up nearly anywhere—fields, woods, cars—but roughly two-thirds of the labs are found in inhabited houses. A typical lab requires little in the way of materials, only glassware, hoses, a heat source and some old coffee filters. In addition, the ingredients used to manufacture meth are commercially available anywhere in the U.S. The main ingredient, ephedrine or pseudoepherine, is a chemical that is present in many over-the-counter cold and asthma medications, and the other chemicals are available in gasoline, rubbing alcohol, pool-cleaning supplies, drain cleaners, fertilizer and matchbooks. Moreover, the process itself requires almost no technical knowledge, involving nothing more complicated that mixing and siphoning, and the recipe—as well as step-by-step instructions—is freely and easily available on the Internet.

The cleanup following the discovery of a meth lab can be an expensive and involved process. Cleanup is generally responsibility of State and local governments.

States and localities have different statutes and regulations relating to the cleanup and remediation of meth labs, but generally cleanup and remediation occur in distinct phases. The first phase is the initial cleanup of gross contamination, which includes the removal of illicit laboratory equipment, chemicals and obviously contaminated furnishings. Since meth labs are crime scenes, law enforcement is typically first to respond, securing evidence and overseeing phase one cleanup activities.

After a site has been secured and is no longer part of a criminal investigation, the second phase of the cleanup begins—the remediation of harder to identify residual contamination. At this phase, property owners are notified and responsibility passes to them, often with a recommendation to contact a contractor. There are no national guidelines or regulations on how to clean up a residential meth lab for reoccupation. States struggle to protect the public and to find an answer that is practical for property owners; their responses range from doing almost nothing to complete demolition. However, most remediation efforts involve one or more of the following measures: ventilation, encapsulation or sealing of interior surfaces, removal of drywall, decontamination of ventilation or wastewater systems, and removal of soil or treatment of contaminated groundwater.

Even where State and local regulations or ordinances exist, states and localities usually do little to enforce cleanup rules. Some public health officials try to force reluctant owners by threatening condemnation of the property. Cleanup is expensive; the cost to remediate a 1,500 square foot rambler can range from $5,000–$15,000, and most insurance companies exclude "contamination" and "felony activities" from coverage for private homes and some commercial properties. Individuals buying or moving into a property that was previously a meth lab may have no way of knowing that their new residence was once a meth lab and the attendant risks.

Seven states have established by statute, regulation or guideline a risk-based decontamination standard specific to meth.[1] But there is a great deal of debate over what standard is appropriate. Should the standard be based on risk to human health (and, if so, what level of risk is appropriate) or be based on the feasibility of cleaning up a site, or some mix of the two? How should one determine the risk associated with a meth ingredient that might be around a typical household for legitimate purposes? The questions are further complicated by the lack of research on the long-term health effects of former meth labs. Much of the research that does exist on meth ingredients is based on occupational exposures that occur when meth's precursor chemicals are used for legitimate industrial purposes. Those uses are unlikely to produce the short-term exposures to high concentrations of these chemicals that can occur in meth production. Little is also known about the consequences of long-term exposure to the traces of chemicals that individuals, including children, may receive from living in a former meth lab, although cases of lingering health effects from such exposures have been reported.

Most states have little to no funding to conduct research on meth cleanup. The National Alliance for Model State Drug Laws has pushed for a federal program of research to validate sample collection methods, identify primary and persistent chemicals of concern, determine the most effective remediation techniques for particular surfaces (e.g., porous and nonporous), and help develop assessment and remediation guidance for states and localities based on short- and long-term health effects. A federal program could also aid in the development of field tests kits for meth and other hazardous chemicals—another pressing need.

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[1] The seven states with the risk-based decontamination standard for meth are Alaska, Arizona, Arkansas, Colorado, Minnesota, Tennessee and Washington.

5. Section-by-Section Description of H.R. 798

Section 1. Short title.

The Methamphetamine Remediation Research Act of 2005

Section 2. Findings.

Section 3. Voluntary Guidelines.

Requires the Assistant Administrator for Research and Development at the Environmental Protection Agency (EPA), in consultation with the National Institute of Standards and Technology (NIST), to establish, within one year, voluntary guidelines for the remediation of former methamphetamine labs, including guidelines for preliminary site assessments and the remediation of residual contaminants.

Requires that, in developing the guidelines, the Assistant Administrator consider relevant standards, guidelines and requirements in federal, State and local laws and regulations; the varying types and locations of former methamphetamine labs; and expected costs.

The voluntary guidelines are to be used to assist State and local governments. Requires the Assistant Administrator to work with State and local governments and other relevant non-federal agencies and organizations, including through the conference required by section 5, to promote and encourage the appropriate adoption of the voluntary guidelines.

Requires the Assistant Administrator to periodically update the voluntary guidelines, in consultation with states and other interested parties, to incorporate research findings and other new knowledge.

Section 4. Research Program.

Requires the Assistant Administrator to establish a research program of research to support the development and revision of the voluntary guidelines in section 3. Requires research to:

- identify methamphetamine laboratory-related chemicals of concern,
- assess the types and levels of exposure to chemicals of concern that may present a significant risk of adverse biological effects,
- better address biological effects and minimize adverse human exposures,
- evaluate the performance of various methamphetamine laboratory cleanup and remediation techniques, and
- support other priorities identified by the Assistant Administrator in consultation with states and others.

Section 5. Technology Transfer Conference.

Requires the Assistant Administrator to convene within 90 days of the date of enactment, and every third year thereafter, a conference of State agencies and other individuals and organizations involved with the impacts of former methamphetamine laboratories. The conference should be a forum for the Assistant Administrator to provide information on the voluntary guidelines and the latest findings of the research program, as well as an opportunity for the non-federal participants to provide information on their problems, needs and experiences with the voluntary guidelines.

Requires the Assistant Administrator within three months of each conference to submit a report to Congress that summarizes the proceedings of the conference, including any recommendations or concern raised and a description of how the Assistant Administrator intends to respond to them. Requires the report to be made widely available to the general public.

Section 6. Residual Effects Study.

Requires the Assistant Administrator to enter into an arrangement with the National Academy of Sciences within six months of the date of enactment to study the status and quality of research on the residual effects of methamphetamine laboratories. Requires the study to identify research gaps and recommend an agenda for the research program in section 4. Requires the study to focus on the need for research on the impact of methamphetamine laboratories on residents of buildings where labs are or were located, with particular emphasis on the biological effects on children and on first responders.

Section 7. Methamphetamine Detection Research and Development Program.

Requires the Director of NIST, in consultation with the Assistant Administrator, to support a research program to develop new methamphetamine detection tech-

nologies, with emphasis on field test kits and site detection and appropriate standard reference materials and validation procedures for methamphetamine detection testing.

Section 8. Savings Clause.

Provides that nothing in the Act shall be construed to change the regulatory authority of EPA.

Section 9. Authorization of Appropriations.

Authorizes $3 million for each of fiscal years 2006 through 2009 for EPA. Authorizes $1.5 million for each of fiscal years 2006 through 2009 for NIST.

6. Current Federal Response on Cleanup and Remediation

In October 2004, the White House Office of National Drug Control Policy (ONDCP), in cooperation with the Drug Enforcement Administration, the Department of Justice Criminal Division's Narcotic and Dangerous Drug Section, and various components of the Department of Health and Human Services, released *The National Synthetic Drugs Action Plan.* With respect to the cleanup and remediation of former meth labs, the plan calls on federal agencies to:

- Ensure adequate funding for clandestine laboratory and dumpsite cleanups, including funding for sufficient personnel to support laboratory cleanups and hazardous waste disposal, so that cleanup costs are not a disincentive to lab investigations or takedowns. Federal officials, in collaboration with State agencies, should conduct a needs assessment to identify potential program improvements and make recommendations on specific support needed and funds required; and
- Disseminate and apply the latest guidelines for the cleanup of meth labs and, where necessary, coordinate environmental remediation by appropriate entities. These protocols for the adulteration and destruction of precursor and essential chemicals, glassware, and meth waste should be part of certification training.

EPA

EPA can use the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), better known as the Superfund, to respond to environmental and health threats, including those posed by meth labs. However, the human health and environmental threat posed by small labs seldom rises to the necessary level to trigger a Superfund cleanup. On the other hand, if a "superlab" produced a large amount of chemicals that were dumped into a river or onto public grounds, a Superfund response might be triggered. A few former meth labs have become Superfund sites.

In addition to EPA cleanup under Superfund, the Agency provides training for State and local responders, and it offers a wide range of technical and management courses designed to help responders identify and deal appropriately with hazardous substances.

Department of Justice: DEA and COPS

DEA is more frequently involved in the phase one cleanup of meth labs than is EPA, but the extent of involvement can vary by state. Typically, DEA is involved in the initial cleanup of large "superlabs" because they are often associated with large-scale drug trafficking operations. To aid in this effort, the DEA administers the Hazardous Waste Cleanup Program, to fund and contract for the cleanup of seized drug labs.

The DEA Cleanup program is funded through the Community Oriented Policing Services (COPS) program. The Hazardous Waste Cleanup Program received about $20 million in FY04, the last year for which figures were available. In addition, in FY04 DEA spent about $4 million on additional lab cleanups and almost $2 million on grants to states to purchase lab cleanup equipment. Finally, DEA's Office of Training conducts numerous training sessions to ensure the safe and efficient cleanup of meth lab hazardous waste.

7. Witness Questions

The invitation letters asked the witnesses to address the following questions in their testimony:

Questions for Mr. Burns:

- What is the extent of the methamphetamine problem, including what we know about who is using it, where it comes from and the impact on local communities, including the lasting health and environmental effects of former laboratories?
- How does the Federal Government support State and local agencies in the removal of hazardous waste and the remediation of former laboratories?
- What are the principle findings and recommendations in the National Synthetic Drug Action Plan with respect to the cleanup and remediation of former methamphetamine laboratories? Are the findings and recommendations adequately addressed in H.R. 798?

Questions for Ms. Green:

- What is the National Alliance for Model State Drug Laws? How does your organization work with states to develop model drug laws? And how did your organization get involved in issues related to the cleanup and remediation of former methamphetamine laboratories?
- What is the status of State law with respect to methamphetamine cleanup and remediation? How are methamphetamine laboratories currently cleaned and remediated? Who is performing these activities and what challenges do they face?
- Is there a need for federal guidance and research on the assessment, cleanup and remediation of residential methamphetamine labs? If so, are these needs adequately addressed in H.R. 798?

Questions for Dr. Martyny:

- How are harmful chemicals and residuals distributed during the manufacture of methamphetamine? What happens to these chemicals after production has ceased? And what do we know about the effectiveness of cleaning techniques?
- What are the principal findings of your research on the effects of harmful chemicals and residuals to first responders investigating residential methamphetamine laboratories? What are the health effects for children present within homes that are used to produce methamphetamine? And what are the health hazards associated with active and former methamphetamine laboratories, particularly over the long-term?
- Where are the limitations of the current research on the health exposures to these residential laboratories? Are unmet research needs currently and adequately being addressed by non-federal organizations and agencies? If not, what is the federal role in meeting these needs?

Questions for Mr. Hamilton:

- What agencies, federal, State or local, currently respond to a residential methamphetamine laboratory? How are these laboratories assessed and cleaned? What, if any, State laws or regulations guide this process? And what are the limitations of these State laws and regulations?
- How are the residual contaminants of these residential labs remediated? What happens if property owners are unable or unwilling to remediate these properties?
- What guidance or other assistance do you need in terms of chemicals involved, health hazards, and effective remediation strategies? Does the Federal Government have a role to play in these areas? If so, is it adequately addressed in H.R. 798?

Questions for Mr. Howard:

- When did New York first notice an emerging methamphetamine problem, both in terms of the number of users and the number of laboratories? What is the estimated scope of the problem today? And how has that affected your state, particularly in terms of law enforcement?
- What agencies, federal, State or local, currently respond to a residential methamphetamine laboratory? How are these laboratories assessed, cleaned and remediated? And what, if any, State laws or regulations guide this process?

- What precautions do you take when during the raid of a known meth lab? What guidance do you need in terms of chemicals involved, health hazards (both in terms of first responders and current and future residents), and effective remediation strategies? Does the Federal Government have a role to play in these areas? If so, is it adequately addressed in H.R. 798?

Questions for Dr. Bell:

- When did Tennessee first notice an emerging methamphetamine problem, both in terms of the number of users and the number of laboratories? What is the estimated scope of the problem today? And how has that affected your state?
- What agencies, federal, State or local, currently respond to a residential methamphetamine laboratory? How are these laboratories currently assessed, cleaned and remediated? What, if any, state laws or regulations guide this process? And what are the limitations of these assessment and remediation strategies?
- How has Tennessee Technological University collaborated with law enforcement and local hospitals on the detection and remediation of former methamphetamine labs? What research, guidance or tools is needed to address the environmental and health hazards of residential methamphetamine laboratories? Are these needs adequately addressed in H.R. 798?

Chairman BOEHLERT. The Committee will come to order.

I want to welcome everyone here this morning for a hearing on one of the most disturbing trends in contemporary culture: the growing abuse of methamphetamines, or meth, or crank, or whatever you want to call it. By any other name, it is just as foul.

Meth is a particular menace because it combines characteristics that are not usually exhibited by a single drug. Abused drugs tend either to be cheap, but not so potent; or highly potent, but relatively expensive. But meth is a powerful, addictive, and deadly drug that is also inexpensive to buy or to make and is readily accessible. Worse still, it destroys families and communities in areas that have been somewhat immune to the worst of the Nation's previous drug epidemics. What the crack epidemic was to the Nation's cities, the meth epidemic is to our rural areas.

Unfortunately, I have been able to witness to this in my own Congressional District. While New York has not been a center of meth abuse, it started in the West Coast and has moved gradually but now rapidly eastward, the problem is growing exponentially. And Tioga County in my Congressional District has seen more meth lab busts than any other county in the Empire State. We are privileged to have with us today Tioga County's Sheriff, Gary Howard, and I know that he will describe the devastation and challenges this is causing and presenting.

There are many aspects of the meth problem, and many things that must be done to combat it: strengthening law enforcement, improving treatment, and broadening education programs, to name just a few. But there is another insidious aspect of meth, and that is its environmental effects, which can harm individuals who have no connection whatsoever with making or using the drug: the innocents.

It is that aspect of the meth problem that falls in our jurisdiction and that we will focus on today.

The manufacture, or "cooking" of meth uses readily available, but highly dangerous chemicals. That toxic brew can spread its own devastation as firefighters are exposed to it, as chemicals are dumped into the environment and as new people move into the site of former meth labs. And the labs are not those white coat, Bunsen burner, test tube types of things that we are usually familiar with here in the Science Committee. Maybe a motel room or a third floor apartment or a trailer. Labs are easy to create.

But we know very little about how much damage results from this aspect of the meth problem or about how to clean up and remediate former meth labs. States are struggling with this problem with little information.

That is why I was pleased to be an original cosponsor on the bill Mr. Gordon and Mr. Calvert have introduced, H.R. 798, which takes aim at this problem. And let me point out that I congratulate Mr. Gordon and Mr. Calvert for the bipartisan leadership they are providing. It is a sensible, targeted bill that we have all worked on together, and I hope we can report it out of Committee later this month. We want to put this on a fast track.

The bill would bring the resources and expertise of the Environmental Protection Agency and the National Institute of Standards and Technology to bear on the environmental aspects of the meth

problem. States would then have some guidance as they decide how to protect first responders and how to clean up and remediate meth labs to protect so many more in the innocent public at large.

I look forward to hearing our witnesses today, including my fellow New Yorkers, and I look forward to seeing this bill move forward rapidly.

I want to yield the remainder of my time to Mr. Calvert, the co-sponsor of H.R. 798. I congratulate him on his leadership on this issue. And then we will go to the prime motivater of this whole endeavor, Mr. Gordon, the Ranking Member from Tennessee.

[The prepared statement of Chairman Boehlert follows:]

PREPARED STATEMENT OF CHAIRMAN SHERWOOD L. BOEHLERT

I want to welcome everyone here this morning for a hearing on one of the most disturbing trends in contemporary culture—the growing abuse of methamphetamines, or meth.

Meth is a particular menace because it combines characteristics that are not usually exhibited by a single drug. Abused drugs tend either to be cheap, but not so potent; or highly potent, but relatively expensive. But meth is a powerful, addictive and deadly drug that is also inexpensive to buy or to make and is readily accessible. Worse still, it is destroying families and communities in areas that have been somewhat immune to the worst of the Nation's previous drug epidemics. What the crack epidemic was to the Nation's cities, the meth epidemic is to our rural areas.

Unfortunately, I have been able to witness this in my own District. While New York has not been a center of meth abuse, the problem is growing exponentially. And Tioga County in my District has seen more meth lab busts than any other county in the State. We have Tioga County's Sheriff, Gary Howard, with us today, and I know he will describe the devastation this is causing.

There are many aspects of the meth problem, and many things that must be done to combat it—strengthening law enforcement, improving treatment, and broadening education programs, to name a few. But there is another insidious aspect of meth, and that's its environmental effects, which can harm individuals who have no connection whatsoever with making or using the drug.

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I look forward to hearing our witnesses today, including my two fellow New Yorkers. And I look forward to seeing this bill move forward rapidly.

I want to yield the remainder of my time to Mr. Calvert, the co-sponsor of H.R. 798. I congratulate him on his leadership on this issue.

Mr. CALVERT. Thank you, Mr. Chairman.

And I am certainly proud to join you as an original co-sponsor to Mr. Gordon's bill, H.R. 798, the *Methamphetamine Remediation Research Act of 2005*.

Mr. Gordon, I certainly thank you for bringing this very important issue to the Committee's attention. I know the Committee's

Majority and Minority staffs have worked together since last year to develop and revise this legislation.

As Co-Chairman of a 100-plus member Congressional Caucus to Fight and Control Methamphetamine, I know of the growing meth problem in this nation and show no deference—I know it shows no deference to District or party lines. This is an issue everyone can agree is wreaking havoc on our communities across the Nation.

As mentioned by the Chairman and Ranking Member, H.R. 798 focuses its efforts on procedures and standards needed to decontaminate a site where methamphetamine is found so our communities can more thoroughly remediate these sites, which will protect our citizens and ensure the health of the environment. In my area in Riverside, California, methamphetamine production has reached epidemic proportions, with many of these labs having the distinction of being labeled "super labs." These labs are capable of producing over 10 pounds of finished meth per batch. One such lab was seized in 2003 operating out of a barn in a rural area in Riverside County, producing over 6,000 pounds of finished product with a street value of over $33 million. Over four million pounds of contaminated toxic soil had to be removed with heavy equipment, costing in excess of $226,000. Officials from the California Department of Toxic Substance Control has called this the most difficult and costly methamphetamine lab cleanup in California's history.

So as you can see, this is a distressing issue which our region, and quite frankly most of America, is becoming all too familiar with. Our State and local agencies need all of the resources and tools we can provide them in their efforts to address this problem.

I am well aware that much more needs to be done to win this fight against this devastating drug, I am optimistic that this legislation will be a good start in that fight and will be welcomed by our communities.

I certainly want to thank the witnesses for being here today. I look forward to hearing your testimony. I am sure you will enlighten us on the severity of this current methamphetamine remediation problem and hope you will provide us with some constructive advice and feedback for our legislation.

I am surely proud of this Science Committee for doing its part to fight drug addiction and specifically methamphetamine and those aspects that fall within our committee's jurisdiction. And I certainly want to thank Bart Gordon for his good work in this legislation, and I want to again thank you, Mr. Chairman.

[The prepared statement of Mr. Calvert follows:]

PREPARED STATEMENT OF REPRESENTATIVE KEN CALVERT

Thank you, sir.

Mr. Chairman, I am proud to have joined you as an original sponsor to Mr. Gordon's bill—H.R. 798, the *Methamphetamine Remediation Research Act of 2005.* Mr. Gordon, I thank you for bringing this very important issue to the Committee's attention. I know the Committee's Majority and Minority staffs have diligently worked together since last year to develop and revise this legislation.

As a Co-Chairman of 100+ member Congressional Caucus to Fight and Control Methamphetamine, I know the growing meth problem in this nation shows no deference to district or party-line. This is an issue everyone can agree is wreaking havoc on our communities across the Nation. As mentioned by the Chairman and Ranking Member, H.R. 798 focuses its efforts on the procedures and standards needed to decontaminate a site where a methamphetamine lab is found so our com-

munities can more thoroughly remediate these sites which will protect our citizens and ensure the health of the environment.

In my area of Riverside, California, methamphetamine production has reached epidemic proportions with many of these labs having the distinction of being labeled superlabs—these are labs that are capable of producing over ten pounds of finished methamphetamine per batch. One such lab which was seized in 2003 operated out of a barn in a rural area of Riverside County and produced over 6,000 pounds of finished product with a street resale value of over $33 million dollars. Over four million pounds of contaminated toxic soil had to be removed with heavy equipment, costing in excess of $226,000. Officials from the California Department of Toxic Substance Control has called this the most difficult and costly methamphetamine lab clean up in California's history.

So as you can see this is a distressing issue which my region, and quite frankly, most of America is becoming all too familiar with. Our State and local agencies need all the resources and tools that we can provide them with in their efforts to address this problem. Although we are all aware that much more needs to be done to win the fight against this devastating drug, I am optimistic H.R. 789 will be a good start in that fight and will be welcomed by our communities.

I thank the expert witnesses for being here today and I look forward to hearing your testimony. I trust you will further enlighten us all on the severity of the current methamphetamine remediation problem and hope you will provide us with some constructive feedback on our legislation.

I am truly proud that the Science Committee is doing its part in the fight against methamphetamine by tackling those aspects that fall within our committee's jurisdiction. And with that I want to thank Mr. Gordon again and thank you Mr. Chairman.

Chairman BOEHLERT. Thank you very much, Mr. Calvert. And that is a nice segue into recognizing the Ranking Minority Member of the Committee, Mr. Gordon from Tennessee, who has provided leadership for the entire Committee and, indeed, the Congress on this very important issue that is below the radar screen for an awful lot of people. And we are going to do our level best, as a team up here, Republicans and Democrats alike, to educate our colleagues in the Congress and to get moving with the appropriate federal response to the issue.

The Chair recognizes Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman.

As usual, I concur with your opening statement, not only your nice statements about me, but the substance of this issue. And I want to join you in welcoming our witnesses today and Representative Ken Calvert, thank you again for your work and your staff's work in helping us bring this H.R. 798, the *Methamphetamine Remediation Research Act of 2005,* before us.

And I am pleased that we are getting started on this early. I think we will see this, as was mentioned, early on in this session.

Meth abuse is an insidious problem that is spreading rapidly across our country. The meth epidemic destroys families and communities, leaving in its wake overtaxed law enforcement authorities, overburdened child service agencies, and toxic dumps wherever meth is produced.

Last year, more than 17,000 meth labs were seized nationwide. In my home State of Tennessee, law enforcement authorities seized nearly 1,200 labs and more than 700 children were placed in state custody as a result of meth lab seizures.

Now let me tell you about the children.

The addiction to methamphetamine is so great that it overshadows the parental instincts. And so when a meth lab is created in a home, children aren't shielded at all from this. And so when the law enforcement agencies go in and take the parents away,

they wind up also having to take the children to a foster home. Now that is a $25,000 or so bill sent to the taxpayer, but more than that, what happens is that those children have to leave their toys and their clothes behind, because they are so toxic. They are put in something called a bunny suit, taken to a hospital with an attempt to try to decontaminate them, but we really don't know what the long-term effects are. Health-wise we don't know the effects, but we certainly know having to grow up in a foster home is not the best situation with these children. So this is something that is very important.

And now I have mentioned some statistics in Tennessee, but many other states also face problems of similar size.

In addition, meth continues to spread into states where it was once thought not to be a problem.

H.R. 798 is the result of a roundtable held in my District almost a year ago. Working with local officials and representatives of Tennessee Technological University, we identified a set of problems that needed to be addressed aside from more funding for law enforcement and education initiatives. These problems included the need for health-based guidelines for clean up of meth labs, improved field equipment to detect meth labs, studies on the long-term health impacts on children found in meth labs, and first responders who may be exposed in the line of duty.

These issues all have a strong research component and could be addressed by the agencies within the Science Committee's jurisdiction.

And once again, to put a quick face on this, suppose your parents bought a duplex, with the income being a part of their retirement. Well, somebody moves into one side of this duplex, sets up a meth lab. It winds up being busted, and for all practical purposes, they have got a contaminated duplex they can't rent, sell, or do anything else with because there are really no standards right now as to what is clean up. And part of what we are going to try to do is set those standards so that we will know what is going to be cleaned up, not only for public safety, but also that property then can be put back to good use.

And for law enforcement agents, right now, if they have to swipe a doorknob or a car or something for evidence, they have to then send that in and some days later they get it back. We hope we are going to be able to establish some equipment that is going to allow them to do that right there on the spot, which will then give them the due process to go in and make a bust right on the spot there.

So really this bill is aimed at protecting innocent people whose lives are endangered by these illegal activities, and I think this will help us move that process forward.

And again, I thank the Chairman for his help in putting the bill together and for having this hearing today and moving this forward.

[The prepared statement of Mr. Gordon follows:]

PREPARED STATEMENT OF REPRESENTATIVE BART GORDON

I want to join Chairman Boehlert in welcoming everyone to this morning's hearing.

First, I would like to thank Rep. Calvert and Chairman Boehlert for working with me on H.R. 798, the *Methamphetamine Remediation Research Act of 2005.* Rep. Cal-

vert and Chairman Boehlert both recognize the challenges facing our local communities caused by meth abuse and production. I am pleased that we are moving this bill so early in the 109th Congress.

Meth abuse and production is an insidious problem that is spreading rapidly across our country. The meth epidemic destroys families and communities, leaving in its wake overtaxed law enforcement authorities, overburdened child service agencies and toxic dumps wherever meth is produced.

Last year more than 17,000 meth labs were seized nationwide. In my State of Tennessee, law enforcement authorities seized nearly 1,200 labs and more than 700 children were placed in State custody as a result of meth lab seizures and incidents. While these numbers are staggering, they represent only instances where labs were discovered. Some law enforcement officials estimate that only 30 percent of meth labs are ever found.

While I've mentioned some statistics from Tennessee, other states face problems of similar size. In addition, meth continues to spread into states where it was once thought not to be a problem. With distributed small-scale production and because meth abuse primarily occurs in rural areas, citizens often don't realize there is a problem until it has already sunk its roots deep into their community.

H.R. 798 is the result of a roundtable I held in my district almost a year ago. Working with local officials and representatives of the Tennessee Technological University, we identified a set of problems that needed to be addressed aside from more funding for law enforcement and education initiatives.

These problems included the need for health-based guidelines for the cleanup of meth labs, improved field equipment to detect meth labs, and studies on the long-term health impacts on children found in meth labs and first responders who may be exposed in the line of duty.

These issues all have a strong research component and could be addressed by agencies within the Science Committee's jurisdiction. H.R. 798 is the product from working with outside groups and Rep. Calvert and Chairman Boehlert. In addition, the National Alliance for Model State Drug Laws has been a valuable resource as we were developing this bill.

H.R. 798 is not a total solution to the methamphetamine epidemic. Unfortunately, there will always be people who decide to harm themselves by using and manufacturing dangerous drugs such as methamphetamine. H.R. 798 is aimed at protecting innocent people whose lives are endangered by these illegal activities.

I want to thank our witnesses for taking time from their busy schedules to appear before the Committee today.

Chairman BOEHLERT. Thank you very much, Mr. Gordon.

[The prepared statement by Mr. Costello follows:]

PREPARED STATEMENT OF REPRESENTATIVE JERRY F. COSTELLO

Good afternoon. I want to thank Chairman Boehlert, Ranking Member Gordon and Representative Calvert for introducing the *Methamphetamine Remediation Research Act of 2005* and for holding a hearing on this legislation. As a cosponsor of H.R. 798, I strongly support the establishment of a federal research program that would develop voluntary standards to help states deal with the harmful consequences of methamphetamine laboratories. I appreciate the witnesses who came to testify before our committee today so Members can gain a better understanding of the methamphetamine problem in the United States and learn how agencies, federal, State or local, currently respond to residential laboratories, in order to address unmet research needs.

As the use of methamphetamines has spread so has awareness of the challenges associated with this addictive drug. No other narcotic has the wide-array of dangers—crime, social consequences, environmental degradation, property damage—that comes with methamphetamine use. I realize that I am not alone when I say that my congressional district and surrounding communities have seen a growing methamphetamine problem. It appears as though daily articles are published in newspapers across the country explaining how methamphetamine use is increasing, and revealing the damaging affects it has on communities.

After speaking with the law enforcement officials in the 12th district of Illinois, I secured funding in 2003 and 2004 for a grant programs in Southern Illinois to train approximately 100 law enforcement officers across the region in dismantling and cleaning up meth labs. Also, the grant supplies the hazardous material suits and equipment that officers need to safely conduct their investigation. As the panel knows, cleanup is expensive, and the cost to remediate a 1,500 square foot lab can range from $5,000–$15,000. Unfortunately, most states have little or no funding to

conduct research on meth cleanup, and as a result, not much is known about the consequences of long-term exposure to the traces of chemicals that individuals, including children, may be exposed to living in a former meth lab.

Undeniably, methamphetamine production and abuse is becoming an emerging problem across the country. The Federal Government has yet to develop a strategy for how to respond to methamphetamine use. Furthermore, states are struggling to protect the public because there are no national guidelines or regulations on how to clean up a residential meth lab or reoccupation. Consequently, I am very pleased this committee is taking the first step in holding a hearing on H.R. 798, and look forward to hearing the testimony of today's witness panel.

[The prepared statement of Ms. Johnson follows:]

PREPARED STATEMENT OF REPRESENTATIVE EDDIE BERNICE JOHNSON

Thank you, Mr. Chairman. I would like to commend you, Chairman Boehlert, for calling this very important hearing on this very important issue. I also wish to thank Ranking Member Gordon for authoring this needed legislation.

Instances of methamphetamine trafficking and abuse in the United States are on the increase. As a result, this drug is having a devastating impact on communities across the Nation.

Unfortunately, many common household products contain most of the necessary chemicals to complete the manufacturing process.

Another disastrous side effect of the methamphetamine epidemic is the bad affect it is having on the environment. Toxic waste from clandestine drug labs in rural America is being dumped on the land, into streams, sewage systems and landfills. For every pound of meth produced, between one and six pounds of highly toxic waste is generated. These chemicals and fumes can permeate the walls, carpets, plaster and wood of meth labs, as well as the surrounding soil, are known to cause cancer, short-term and permanent brain damage and immune and respiratory system problems. Of the 1654 labs seized nationwide in 1998, nearly one in five were found because of fire or explosion.

That is why it is so urgent that Congress takes immediate steps to combat meth production and its dangerous consequences.

I thank the witnesses who have agreed to appear here today to answer questions. We appreciate your insight on this issue.

[The prepared statement by Mr. Davis follows:]

PREPARED STATEMENT OF REPRESENTATIVE LINCOLN DAVIS

Good morning. Thank you, Mr. Chairman and Ranking Member.

Just this week, CBS 60 Minutes ran a story about a health crisis that has become a major problem in many rural areas of our country. I would like to thank the Chairman, Ranking Member, Members of this committee, and other colleagues for bringing this crisis to the forefront of the national health care debate.

The crisis is methamphetamine. My State of Tennessee ranks third in the Nation in the total number of meth clandestine incidents reported in 2004, according to the National Clandestine Laboratory Database. In fact, 75 percent of all the meth lab seizures in the Southeast are in Tennessee.

More than 1200 meth labs were seized in Tennessee in 2004. In my District alone, there are eight counties in which 20 or more meth labs each were found. One could argue that my District is the epicenter of Tennessee's meth crisis.

Methamphetamine destroys families and communities. It's cheap, easy to make, and highly addictive. It is deadly—and has been known to kill people who don't even use it.

So when we talk about meth, we are not just talking about one drug and how it affects the user, we are also talking about the health and well being of those living in the same environment on a daily basis. And more often then not they are children.

Meth is often produced in apartment buildings or other shared housing units. The chemicals used to make it are extremely toxic and flammable.

Nearly one in five labs is found because of fire or explosion. Then, when first responders arrive at the scene or workers come to reclaim the property, they are poisoned by the toxic chemicals in the air, on countertops, in the furniture, and everywhere else in the house.

No one has studied the health effects of meth cleanup, and there are no guidelines on how to even begin cleaning up a meth lab.

I believe that Mr. Gordon's bill, H.R. 798, provides a solid foundation to help address this issue.

Mr. Chairman and Ranking Member, Members of the Committee, I urge you to support this legislation.

Because somewhere, as we speak, methamphetamine is cooking. A match will be lit. An explosion will occur. A life will be lost.

Time is of the utmost importance, and we need to act now.

Thank you, Mr. Chairman. I yield back the balance of my time.

[The prepared statement by Mr. Carnahan follows:]

PREPARED STATEMENT OF REPRESENTATIVE RUSS CARNAHAN

Mr. Chairman and Mr. Ranking Member, I want to thank you for introducing this legislation and hosting this all-important hearing.

I am tremendously sensitive to the problem of methamphetamine or "meth" abuse due to it's widespread emergence in my district. Last year my home State of Missouri had the unfortunate distinction of being the number one state in the country, by more than double, for methamphetamine laboratory seizures. Furthermore, Jefferson County, which resides in my congressional district, has the most seizures and arrests related to "meth" in the State of Missouri. While I am proud of the job that our local law enforcement officials are doing, I am troubled by the growing prevalence of "meth" abuse in rural areas of our country and believe that the U.S. Congress has a responsibility to address the problem.

I am an original co-sponsor of H.R. 798, the bill under consideration, as it will aid our local law enforcement, environmental regulatory, and health care officials in coping with "meth" abuse by providing voluntary guidelines to clean up and remediate the highly toxic chemicals that are used to make the drug. As it stands now, the harmful effects of contamination are not fully recognized and first responders, future inhabitants, and sadly, children are at risk of developing health problems. I truly hope that we can provide local officials in Jefferson County, Missouri and others across the country the tools to help them navigate the remediation of former methamphetamine laboratories.

I applaud our bipartisan leadership for addressing this growing problem and look forward to hearing the testimony of the panelists.

[The prepared statement by Ms. Jackson Lee follows:]

PREPARED STATEMENT OF REPRESENTATIVE SHEILA JACKSON LEE

I would like to thank the Science Committee for organizing this hearing regarding the *Methamphetamine Remediation Research Act of 2005,* H.R. 798. I am a proud co-sponsor of this legislation and believe H.R. 798 will help correct many of the problems related to methamphetamines. The Methamphetamine Remediation Research Act will implement a research program at the Environmental Protection Agency (EPA) to develop health-related guidelines for the cleanup of methamphetamines. This bill will also call for the National Academy of Science to perform a study on the long-term health effects on children rescued from living in methamphetamine lab homes. In addition, the National Institute of Standards and Technology will create a research program to develop methamphetamine detection equipment emphasizing field testing kits.

The problems produced by methamphetamines and incidents related to methamphetamines are growing daily. As of February 24, 2005, the State of Texas recorded 422 incidences related to methamphetamine labs and as a nation we had a total of 16,326 incidences. The amount of methamphetamines being used by our young adults is alarming. In 1999, 5.2 percent of 18–25 year olds reported a lifetime use of methamphetamines. As more of our population uses methamphetamines, the demand for the drug rises. Nowhere is it a bigger problem that in the Midwest, where methamphetamines account for nearly 90 percent of all drug cases. In states such as Oklahoma, methamphetamines are surpassing cocaine as the drug of choice. The State Medical Examiner's office reports the number of death cases testing positive for methamphetamines have been higher than cocaine for the past three years. The office also reports methamphetamine is found in more cases of homicides, and motor vehicle accidents.

Methamphetamine labs not only damage individuals, they affect our children and our environment. As the founder and co-chair of the Congressional Children's Caucus, I am saddened by the effects methamphetamine labs have on children. Children living at methamphetamine labs are at increased risk for severe neglect and physical and sexual abuse. Children raised in the methamphetamine lab environment

experience stress and trauma that significantly affect their overall safety and health, including their behavior, emotional, and cognitive functioning. Hazardous living conditions and filth are common in methamphetamine lab homes where explosives and loaded guns are often present and in many incidences, in easy-to-reach locations. The safety and development of our children are negatively influenced by living in methamphetamine lab homes.

Our environment suffers from methamphetamine labs as well. In general, there are 5–7 pounds of toxic waste produced for every pound of methamphetamine manufactured. There are more than 30 chemicals used to produce methamphetamines, and most are explosive, caustic and carcinogenic. The chemicals are often poured into streams, down drains or disposed of in fields, yards or gutters. Many highway clean up crews have reported finding toxic garbage from methamphetamines in ditches. All of this illicit toxic waste eventually winds up in waterways via rainwater runoff.

Chairman BOEHLERT. Our distinguished panel of witnesses today consist of: Mr. Scott Burns, who is Deputy Director for State and Local Affairs, Office of National Drug Control Policy. He is from the White House; Ms. Sherry L. Green, Executive Director, National Alliance for Model State Drug Laws; Dr. John Martyny, Senior Industrial Hygienist, Division of Environmental and Occupational Health Sciences, National Jewish Medical and Research Center; Mr. Henry Hamilton, Assistant Commissioner, Public Protection, New York State Department of Environmental Conservation; Sheriff Gary Howard of Tioga County, New York. And let me tell you, I take personal pride in Sheriff Howard, because I am privileged to share a Congressional District that he is a leader in. And he has been a leader in educating this Member of Congress about this very serious problem. And people so often are a little bit cynical about Congress. They think we come down here, live in isolation, and don't pay any attention to anybody else and talk to each other and decide everything amongst ourselves. Not so. You just heard Mr. Gordon explain how he got his education back home in Tennessee from the people at Tennessee Technological University. I got my education back in Tioga County, New York, and Sheriff, I am so very pleased to have you. For those of you in this room who don't know it, he has had the most busts in New York, a small, rural county in upstate New York, of any Sheriff in any jurisdiction within that state. And he is a very able professional, and he exemplifies the best in law enforcement. Sheriff, I thank you for what you have done for me personally in my education process and also for what you do every single day for the people of your jurisdiction. They are fortunate to have you.

And for the purpose of introduction, the Chair recognizes Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman.

I am pleased to introduce Dr. Robert Bell, President of Tennessee Technological University. Dr. Bell joined the Tennessee Tech faculty in 1976 as Chairman of Management and Marketing. After serving various positions at Tennessee Tech, he was named President in 2001. The Science Committee Members will be interested to know that Dr. Bell served four years on the Board of Examiners for the Malcolm Baldridge National Quality Award, and in 1998, was recognized by the Secretary of Commerce for outstanding service to the Nation as a quality examiner.

Dr. Bell is here today because of Tennessee Tech's work in fighting the methamphetamine problem in the Tennessee upper Cum-

berland region, an area that Lincoln Davis knows very well and represents a portion of that, and Lincoln is a graduate of—a prior graduate of Tennessee Tech.

So, Dr. Bell, thank you for your work with Governor Bredesen on the task force in Tennessee, and thank you for helping us on a national level.

Chairman BOEHLERT. Thank you so much, Mr. Gordon.

Now here is the drill. We have got the little clock in the middle and we have got red light, green light, and caution. And Sheriff, you will know, we haven't changed the rules down here. Red light means stop, green light means go, and caution means slow up. But you will see the red light come on after five minutes. We are not going to be arbitrary, because you are expert witnesses. We are here to learn from you, so don't get nervous, but when you see the red light go on, begin to summarize, if you haven't already done so, and that will allow a lot more opportunity for the panel up here, our colleagues, to have questions, and questions lead to answers, and answers lead to education.

So with that, Mr. Burns, you are first up.

STATEMENT OF MR. SCOTT M. BURNS, DEPUTY DIRECTOR FOR STATE AND LOCAL AFFAIRS, OFFICE OF NATIONAL DRUG CONTROL POLICY

Mr. BURNS. Thank you, Chairman Boehlert, Ranking Member Gordon, Congressman Calvert, and distinguished Members of the Committee. I want to thank you for the opportunity to appear before you today to discuss efforts to reduce the problem of methamphetamine in America.

And if I may, I would also like to acknowledge my Congressman from Utah, Jim Matheson, it is good to see you.

The Office of National Drug Control Policy just released, this past month, the President's National Drug Control Strategy, which builds upon the dramatic successes of the past three years in partnership with you in Congress, a 17 percent reduction of drug use among 8th, 10th, and 12th graders over the past three years. That equates to about 600,000 fewer young people using drugs in America. We have also seen a 25 percent decrease in teenage methamphetamine use.

Focusing on prevention and treatment as well as law enforcement and international programs, the 2005 strategy focuses on three core priorities: stopping drug use before it starts, healing America's drug users, and disrupting the market. My written testimony discusses a number of programs, regulations, legislation, and efforts on the national level to discourage methamphetamine from our communities, and I request that it be made part of the record.

I first want to briefly discuss the problem and expand upon what you have said.

The brunt of the fight against methamphetamine is felt by the courageous members of law enforcement, the men and women across this country, some 700,000 law enforcement officers, courageous people like Sheriff Howard. The issue is one with which I am well acquainted, and prior to being nominated and confirmed in my present position at the White House, I was a prosecutor in a small town, a rural county, for 16 years, and the major problem that I

dealt with was methamphetamine. I have worked closely with law enforcement, and I know too well the toll that methamphetamine production and use take on individuals and communities.

Fortunately, there is good news. We have recently seen encouraging results from new methods of attacking the methamphetamine trade. And the Administration's National Synthetic Drugs Action Plan is a comprehensive approach.

Let me take a moment and describe the market.

As many of you know, there are two main sources for methamphetamine consumed in the United States. Our information suggests that most of the methamphetamine consumed in the United States is likely to come from super labs, labs that can produce an excess of 10 pounds in a 24-hour period. They are located primarily outside of our borders, although there are some operating within. We believe that a smaller amount is produced in small, toxic laboratories, or STLs, which can be found in residences, vehicles, and makeshift structures, as you know. Attacking the supply from both sources is important, but each requires a somewhat different approach.

International efforts.

Law enforcement efforts have aimed to cut the supply of pseudoephedrine from Canadian producers to domestic super labs. The Administration's law enforcement efforts in this area have been coordinated in Operation Northern Star, a law enforcement initiative led by DEA with participation by the Bureau of Immigration and Customs Enforcement, or ICE, and also the Royal Canadian Mounted Police, RCMP. Since the initiative's inception in 2001, the number of pseudoephedrine seizures along the Canadian border has reduced by 92 percent. That is significant. On the southwest border, the Administration will continue to work with our international partners to stop the flow of both pseudoephedrine and ephedrine into Mexico through multi-lateral cooperation in the international chemical industry as well as continue to work with our partners in Mexico to identify and dismantle super labs on that side of the border.

Domestic efforts.

On our side of the border, the Organized Crime Drug Enforcement Task Force, or OCDETF, as well as the High-Intensity Drug Trafficking Area, HIDTA, provide a valuable means for federal, State, and local law enforcement to collaborate against mid-level and high-level methamphetamine traffickers in regions where methamphetamine is a significant threat. OCDETF investigations that involve methamphetamine are particularly prevalent in three regions: the west central, the southwest, and the pacific.

State regulation.

The states have responded to the STLs, or the small, toxic laboratories, not only through law enforcement, but also by legislative or regulatory means that respond to the methamphetamine threat that is unique to their individual states. It is different in New York than in Tennessee. It is different in Utah than it is in Central Valley, California. The measures are varied in nature and incorporate

a host of responses: improved treatment, prevention, and education measures, local precursor controls, and aggressive law enforcement efforts. Over the next several months, the Administration will closely analyze the data and results in states where the innovative measures have been implemented.

And let me close by speaking briefly about the National Synthetic Drugs Action Plan.

The Administration supports lowering the federal limit on single sales of pseudoephedrine products and eliminating the blister pack loophole. That is important. The action plan contains other detailed recommendations, including several pertaining to tighter regulatory controls of ephedrine and pseudoephedrine, treatment protocols and practice, education and training, and investigatory and prosecutorial approaches to methamphetamine cases. Critical to the successful implementation of the action plan's recommendation will be a continuing commitment to cooperate not only between federal agencies, but also between the Executive and Legislative Branches of the Federal Government and a continuing partnership with state and local entities committed to making the methamphetamine problem smaller. I co-chair the National Synthetic Action Plan Committee. We will deliver a report to the Attorney General in April, and I look forward to working with each of you when that is completed.

Thank you again.

[The prepared statement of Mr. Burns follows:]

PREPARED STATEMENT OF SCOTT M. BURNS

Chairman Boehlert, Ranking Member Gordon, and Members of the Committee: thank you for the opportunity to appear before you today to discuss efforts to reduce the problem of methamphetamine in America.

The Office of National Drug Control Policy (ONDCP), a component of the Executive Office of the President, was established by the *Anti-Drug Abuse Act of 1988*.

ONDCP is the President's primary source of support for counter-drug policy development and program oversight. The Office advises the President on national and international drug control policies and strategies, and works to ensure the effective coordination of drug programs within the National Drug Control Program agencies. The principal purpose of ONDCP is to establish policies, priorities, and objectives for the Nation's drug control program. The goals of the program are to reduce illicit drug use, manufacturing, and trafficking, drug-related crime and violence, and drug-related health consequences. To achieve these goals, the Director of ONDCP is charged with producing the *National Drug Control Strategy*. The *Strategy* directs the Nation's anti-drug efforts and establishes a program, a budget, and guidelines for cooperation among federal, State, and local entities.

In my testimony I will discuss the extent of the methamphetamine problem in America, the Federal Government's progress in reducing the number of methamphetamine labs and ameliorating their impact, and the principal findings and recommendations of the Administration's "National Synthetic Drugs Action Plan" regarding methamphetamine laboratories.

The issue of methamphetamine is one with which I am well acquainted. Prior to being nominated and confirmed in my present position, I worked as an elected prosecutor in a rural county, where methamphetamine use, sales, and production were a problem. Prosecutors and police in areas where methamphetamine is a problem know too well the toll that methamphetamine production and use take on both individuals and their community. In short, the consequences to individual health and the associated criminal activity as well as the environmental and economic harm, can be devastating.

Fortunately, there is good news. We have recently seen some encouraging results from new methods of attacking the methamphetamine trade. And the Administration's above-referenced "National Synthetic Drugs Action Plan," which I will discuss here in more detail, is a comprehensive approach designed to weaken the supply of, and the demand for, methamphetamine in the United States. I will highlight rel-

evant parts of the Action Plan and outline the tasks that we intend to accomplish over the next four years to continue to reduce the methamphetamine problem in America, focusing on methamphetamine labs for this hearing.

Describing the Market

Any supply reduction strategy for methamphetamine must first inquire as to the source of the drug. Available information regarding the amount of methamphetamine seized from methamphetamine laboratories of varying sizes suggests that most of the methamphetamine consumed in the United States is likely to originate from "superlabs" (laboratories with a daily production capacity exceeding 10 pounds), and either smuggled into the United States from outside of our borders, or produced within our borders, often by Mexican criminal organizations.

Similarly, we believe that a smaller amount is produced in smaller quantities at "small toxic laboratories" (STLs), which can be found in residences, vehicles, and makeshift structures. The impact of STLs has been of particular note on a number of levels. First, children in and around STLs are harmed by the toxic chemicals used in the methamphetamine manufacturing process. Small toxic labs contaminate the environment when methamphetamine cooks dump their toxic chemicals into the water table and onto farmland. Also, these labs create life-threatening hazards, such as explosion or chemical toxicity, which harms not only the people cooking methamphetamine, but first responders, who try to save lives by entering burning and contaminated sites. As noted above, the amount of methamphetamine consumed in the United States originating from these smaller clandestine laboratories is believed to be smaller than that originating from superlabs. However, due to the effects described above, they are a particularly pernicious problem.

Attacking the supply from both sources—superlabs and STLs—is important, but each requires a somewhat different approach.

Administration Efforts

With respect to the superlabs described above, law enforcement efforts have aimed to cut off the supply of pseudoephedrine, the principal ingredient (or precursor), used to produce methamphetamine. In recent years, the supply came primarily via Canadian suppliers to domestic superlab operators. Law enforcement efforts to disrupt the diversion of these chemicals from Canada have been coordinated in Operation Northern Star, led on the American side by DEA, with participation by U.S. Immigration and Customs Enforcement, and closely coordinated with the Royal Canadian Mounted Police (RCMP). Canada's implementation of controls on the importation of precursor chemicals was also a critical element in stopping the flow of chemicals into Canada. In a sign that these efforts are having a real impact, the number of superlab seizures within the United States has substantially declined since the initiative's inception in 2001. Other indicators suggesting that Operation Northern Star has contributed to shrinking the illicit pseudoephedrine market include a decline in pseudoephedrine and ephedrine incidents at the Canadian border by 92 percent and a doubling in the price of bulk pseudoephedrine in the illicit market in California, the state with the most superlabs. Arrests and prosecutions are among the principal drivers of these market changes: in April 2003, the DEA and RCMP announced the arrest of 78 individuals in 10 cities throughout the U.S. and Canada, and just last month, the DEA arrested an additional 90 methamphetamine and ephedrine traffickers in a single operation.

Along with the reduction in domestic superlabs, it appears that the decline in chemical trafficking to Canada has caused some chemical suppliers to seek to ship the chemicals to Mexico instead, where law enforcement believes the number of labs is increasing. Consistent with these changes to the illicit pseudoephedrine market, methamphetamine seizures at the shared border with Mexico rose from 1,130 kilograms in 2002 and 1,790 kilograms in 2003 to 2,145 kilograms in 2004.

For this reason, the Administration will continue to work with our international partners to stop the flow of bulk pseudoephedrine and ephedrine into Mexico, through bilateral chemical control cooperation and multilateral cooperation with the international chemical industry. We particularly acknowledge the leadership of the Fox administration in seeking mechanisms to control the methamphetamine threat in Mexico. We fully support their efforts to become more effective at identifying and dismantling labs on their side of the border. During the week of November 8, 2004, U.S. Immigration and Customs Enforcement agents, in coordination with DEA, dismantled a major Mexican smuggling organization that was smuggling precursor chemicals and finished methamphetamine into the United States from Mexico. During the course of this Organized Crime Drug Enforcement Task Force (OCDETF) investigation, agents seized 1,100 pounds of iodine, 37 gallons of hypophosphorous acid and 25 gallons of hydriodic acid—all of which are precursors used in the meth-

amphetamine production process—at or shortly after crossing the border. The DEA Southwest Laboratory has calculated that this quantity of chemicals could have been used toward the production of approximately 550 pounds of methamphetamine.

Currently, the United States is involved in several multilateral initiatives to track chemicals used in the manufacture of amphetamines, methamphetamine, and other amphetamine-type stimulants such as 3,4 methlyenedioxymethamphetamine (MDMA) and other synthetics, with the goal of enhancing the involvement of China, India, the Netherlands, Canada, Mexico, Poland, the Czech Republic, and other countries in cooperative chemical control efforts.

In addition, the efforts of federal law enforcement agencies and programs continue to be focused on disrupting the domestic market for methamphetamine. The percentage of Organized Crime Drug Enforcement Task Force (OCDETF) investigations in which at least one of the drugs involved included methamphetamine increased from 19.2 percent in FY 2001 to 25.1 percent in FY 2002. The program's methamphetamine focus has continued to increase since then, to 25.9 percent in FY 2003 and 26.7 percent in FY 2004. OCDETF investigations which involve methamphetamine are particularly prevalent in three of the nine OCDETF regions—West-Central, where 53.1 percent of the investigations involve methamphetamine; Southwest, with 58.8 percent; and Pacific, with 45.8 percent.

National Synthetic Drugs Action Plan

In October 2004, the Administration released the first-ever "National Synthetic Drugs Action Plan," which describes the Federal Government's response to the production, trafficking and abuse of synthetic drugs like methamphetamine and MDMA, as well as the diversion of pharmaceutical products. Among the many recommendations of the Action Plan are those designed to cut off access to methamphetamine producers to precursors such as pseudoephedrine.

Federal legislation will be necessary to implement many of the recommendations set forth in the Action Plan. The new Synthetic Drugs Interagency Working Group, established by the Action Plan, will be developing recommendations to implement key provisions of the plan.

Several provisions of the Action Plan aim to disrupt the ability of methamphetamine cooks to gather the chemicals they need to produce the drug. Toward this end, the Administration supports lowering the federal limit on single-sales of pseudoephedrine products. The Action Plan's recommendations also include the deletion of the so-called "blister-pack exemption" that currently exists in federal law. Though the exemption was initially implemented based on the expectation that methamphetamine manufacturers would not be likely to undergo the relatively difficult process of removing small amounts of pseudoephedrine from a large number of blister packs, law enforcement reports that even blister packs are being procured in large quantities and the emptied packs found at methamphetamine labs. For this reason, expecting blister-pack sales to abide by the same rules as other pill containers will help in the fight against methamphetamine production. Similarly, ensuring that these standards apply to the various forms of the product will prevent methamphetamine cooks from switching to alternate pseudoephedrine products, as the pills or tablets become more difficult to procure in significant quantities.

As with any regulatory scheme, it is critical that appropriate penalties be imposed for violation. Tough sanctions should be imposed upon not only methamphetamine producers and traffickers—both at the State and federal level—but also upon those who illicitly traffic or distribute methamphetamine precursors such as pseudoephedrine. Especially because domestic superlabs have declined, and some of these superlabs appear to have been pushed to areas outside of our borders, a continuing focus by law enforcement on illicit shipments of bulk pseudoephedrine inside and outside our borders is critically important.

In response to the presence of these widespread smaller laboratories, the Action Plan highlights the importance of improved treatment, prevention, and education measures and makes several recommendations for federal action in these areas.

Additional measures taken by some states have focused on limiting not only the amount of pseudoephedrine products that may be purchased, but also the location and manner in which the product may be purchased, and have imposed additional requirements for the process of the purchase itself. Over the next several months, the Administration will be closely analyzing the data and results in states where these innovative measures have been implemented. As many of these State actions were taken in the recent past, the Administration will wait for better data and information to emerge before commenting on the effectiveness or impact of the various proposals to reduce methamphetamine availability or methamphetamine laboratory numbers and how they relate to federal policy.

Critical to the successful implementation of the Action Plan's recommendations will be a continuing commitment to cooperation not only between federal agencies, but also between the Executive and Legislative branches of the Federal Government, and a continuing partnership with State and local entities committed to making the methamphetamine problem smaller. We expect that the work of the Action Plan's Interagency Working Group will culminate this year in a final report to cabinet-level officials including the ONDCP Director and Attorney General, and possibly additional legislative recommendations to Congress.

Conclusion

It is important to remember that this drug threat, like others we have faced in the past, is not impervious to effective supply—and demand-control, as seen in Operation Northern Star. We know from years of experience that when we control the precursor chemicals and reduce the availability of methamphetamine, the price of the drug will rise. By prosecuting those who steal large quantities of pseudoephedrine from small mom-and-pop stores and those who would expose children to the toxic chemicals used to make this drug, we disrupt production. As we make treatment available, and support more people making it into recovery, demand will diminish. This requires all levels of government, as well as the private sector and our international allies, to commit to diminishing this threat to Americans' health and well-being.

The Administration looks forward to working with this committee and the entire Congress on the important issue of methamphetamine. Together with Congress, we can achieve the kind of progress that will improve the lives of our children and make us all proud.

BIOGRAPHY FOR SCOTT M. BURNS

Pursuant to his nomination by President George W. Bush, Scott Burns was unanimously confirmed by the United States Senate as Deputy Director for State and Local Affairs in the White House Drug Policy Office in April, 2002.

In addition to his role as principal advisor to ONDCP Director John P. Walters regarding federal, State and local law enforcement, Mr. Burns is also responsible for oversight of the $226 million High Intensity Drug Trafficking Area (HIDTA) program. Soon after his appointment, Mr. Burns reorganized the Office of State and Local Affairs, and assumed new leadership responsibilities for administration initiatives such as reducing prescription drug abuse, enhancing drug courts, tackling marijuana and methamphetamine production on public lands, and crafting other national strategies to disrupt the market for drugs such as methamphetamine, marijuana, cocaine and heroin. Most recently, Mr. Burns was appointed by the White House to serve as the United States' representative to the World Anti-Doping Agency (WADA), an international organization charged with eliminating doping and drug use in sport. Mr. Burns represents the 40-nation Americas region on WADA's governing Foundation Board, and also chairs WADA's Ethics and Education Committee, which aims to educate young athletes worldwide on the health and ethical dangers of drug use.

Prior to his confirmation, Mr. Burns served as the County Attorney in Iron County, Utah, where he successfully prosecuted over 100 felony jury trials, including rape, child abuse, narcotics, and capital murder. He also routinely provided pro bono legal service to the indigent. During his sixteen years as County Attorney, Mr. Burns served on several state and national boards, including the White House Committee on Illegal Narcotics and Addiction. In Utah, he instructed peace officers and others on constitutional law, search and seizure, race relations, and the civil liability of peace officers. As an adjunct professor at Southern Utah University, Mr. Burns taught numerous criminal justice courses.

Mr. Burns is a graduate of Southern Utah University and was inducted into that university's Sports Hall of Fame in 1996. He received his J.D. from California Western School of Law.

Chairman BOEHLERT. Thank you very much, Mr. Burns, and we look forward to continuing our working relationship with you.

Ms. Green.

STATEMENT OF MS. SHERRY L. GREEN, EXECUTIVE DIRECTOR, NATIONAL ALLIANCE FOR MODEL STATE DRUG LAWS

Ms. GREEN. Thank you, Chairman Boehlert, Congressman Gordon, Members of the Committee, and staff. I want to thank you for this opportunity for my organization to actually testify today on this very important issue.

I would like to just briefly highlight a couple of points that are in my written testimony.

The National Alliance for Model State Drug Laws is a bipartisan non-profit organization, which Congress has actually funded since 1995, specifically to help states create a more comprehensive effective system of drug and alcohol laws. We actually grew out of the 1993 President's Commission of Model State Drug Laws that Congress created specifically to draft a model code of drug and alcohol laws. And over the last 10 years, we have used our model code of border-free drug laws and policies to actually help states on a number of particular drug problems, including methamphetamine laboratories. Now when I started working with states on this issue a decade ago, I was working with solely western states and primarily at that time on the issue of controlling access to the chemicals that are used to manufacture methamphetamine.

But over the last decade, as the problem of methamphetamine laboratories has actually raced across the country toward the east, many State and local officials have actually asked us if we would draft a model act or model guidelines specifically on clean up and remediation procedures. Now in preparation for that drafting process, we have actually pulled together a working group of approximately 20 State and local officials from around the country, and they are all in different stages of developing and/or implementing clean up and remediation procedures.

We also did quite a thorough search of existing state laws, regulations, and guidelines on this particular issue. And there is no question, when you look at the laws, the guidelines and even the policies, that there is a wide spectrum of clean up and remediation procedures the states have adopted.

Now on one end of the spectrum, you have states that have taken a more minimal approach. They will recommend that the property be aired out for several days and that the owner use the proper and appropriate household cleaning products to clean the contaminants.

On the other end of the spectrum, you have states that have extraordinarily detailed procedures on preliminary site assessment to detect particular levels of contamination, on the decontamination procedures themselves, and also on any follow-up testing that is needed to determine whether or not the appropriate levels of clean up have, in fact, occurred.

Regardless of where on that spectrum of clean up and remediation procedures that a particular state might fall, the core issue we have discovered really remains the same: how clean is clean for reoccupation purposes?

Now there are seven states at this particular point in time that have attempted to address that issue through their statutes, their regulations, and their guidelines. And those particular states are Alaska, Arizona, Arkansas, Colorado, Minnesota, Tennessee, and

Washington. And Utah also has a proposed rule out at this point in time that would also address the issue. Now these particular states have actually specified a decontamination standard. Now the decontamination standard that is commonly used, there are really two types of measurements. It is either 0.1 or 0.5 micrograms per hundred centimeters squared. Now this particular type of standard is actually a feasibility-based decontamination standard that is based on a cost comparison. Basically, what it does is it tends to look at how much a state would want to spend to achieve a certain decontamination level with officials having a perceived idea of the kind of protection that level might afford for adverse health consequences.

Most state officials, however, regardless of what state we are talking about, whether they have worked on the issue for years or are just beginning to work on the issues, would optimally prefer to use a risk-based or a health-based standard, a standard which would help them determine the level to which they need to clean to prevent the average person from suffering adverse health consequences. The problem is we really don't know for sure what that level is. There is just too little research on the short-term and long-term consequences to adults and to children who are also exposed to methamphetamine as well as other chemicals of concern that are found in methamphetamine laboratories.

So in this vacuum of incomplete research, states are turning to Dr. Martyny's research, which, as we have discovered in our own review of laws, policies, and programs, is the leading research at this time on this issue. They also do turn to some of the other studies, few that they are, that are out there, and they look to the practices and the lessons that have been learned from states like Washington and Oregon, which have dealt with clean up and remediation issues for many, many years.

Now in order to help provide additional guidance to states, we are actually pulling our working group of State and local officials together on April 27 in Salt Lake City. What we are going to do is ask them to help us identify the particular procedures or elements that should be part of a model act or a model guideline at this point in time, given the little research information that we do have. And what we are going to do is take that input, and we are going to translate it into legislative or regulatory language, which will be flexible enough so that we can disseminate it to decision-makers around the country and that, as the need arises, we can easily have it be amended to incorporate advances in research and technology so that we can always have state-of-the-art information.

I want to thank you again for allowing us the opportunity to share information with you and, of course, at the appropriate time, I will be more than happy to answer any questions you might have. Thank you.

[The prepared statement of Ms. Green follows:]

PREPARED STATEMENT OF SHERRY L. GREEN

Chairman Boehlert, Ranking Member Gordon, Members of the Committee, and staff, thank you for this opportunity to appear before you today to offer an overview of the work of the National Alliance for Model State Drug Laws as it relates to states efforts to address the cleanup and remediation of former methamphetamine laboratories. I am honored to be here to discuss these issues that are among the

most pressing for states as they address the many problems related to methamphetamine.

About the National Alliance for Model State Drug Laws

As you may know, the National Alliance for Model State Drug Laws (NAMSDL) is the successor of the President's Commission on Model State Drug Laws, appointed by President George H.W. Bush. At the conclusion of the Commission's work of crafting the 44 model state drug laws addressing over 70 alcohol and other drug issues, the Commissioners created a 501(c)(3) nonprofit organization to serve as an ongoing, bipartisan, independently operated resource to assist states in assessing needs, strategizing, and implementing laws and policies to address alcohol and other drug problems using the model laws as a menu of options. Congress began funding the National Alliance for Model State Drug Laws in fiscal year 1995 to hold state model drug laws summits to serve as needs assessment and action planning mechanisms and to provide technical assistance to states as they implement summit recommendations including elements of the models and address emerging issues related to alcohol and other drugs.

Working with States to Address Cleanup and Remediation of Former Methamphetamine Laboratory Sites

Over a decade ago, the aforementioned President's Commission worked with states to address problems related to methamphetamine laboratories. Since its inception, NAMSDL has built upon the work of the Commission through its Summit process, follow-up work, and technical assistance in their efforts to deal with methamphetamine. However over the past two years as the use and production of this drug has increased and spread to states throughout the country, calls for NAMSDL's assistance on legislative and policy efforts to address meth and its related problems increased precipitously.

In response to this high volume of technical assistance requests, NAMSDL held the National Methamphetamine Legislative and Policy Conference in St. Paul, Minnesota in October 2004. This event focused on legislative and policy options toward creating effective, comprehensive, and coordinated responses to precursor chemical control, drug endangered children (DEC), cleanup and remediation of meth lab sites, addiction treatment, and related issues. Three hundred sixty-five people from 34 states, the District of Columbia, and two tribal nations participated in this event; these individuals included law enforcement officials, addiction treatment professionals, child welfare and child protective services workers, elected officials, environmental scientists, industrial hygienists, federal agencies' staff, and community coalition members.

NAMSDL's National Working Group on Cleanup and Remediation of Methamphetamine Laboratory Sites

As an additional response to states' growing concerns and requests for assistance, NAMSDL agreed to draft a model act or model guidelines for the cleanup and remediation of methamphetamine laboratory sites. Given the growing concern re: cleanup and remediation issues, variety of approaches among the states, the increasing number of states dealing with former meth lab sites, and the changing nature of the labs (e.g., increasing number of apartments, houses, trailers, hotels), NAMSDL identified experts working on these issues in a variety of states and convened a national working group on cleanup and remediation of meth lab sites. This working group includes chemists, industrial hygienists, researchers, environmental toxicologists, public health experts, and other state agency officials at various levels of addressing these issues in the states. Working group members also represent a group of states that are both geographically diverse and at differing stages of addressing issues related to meth; for example, states that have been working on cleanup and remediation issues for many years such as Washington and Oregon as well as states newer to these issues such as North Carolina are included among the working group's membership. Members have met to consider the common issues, recurring questions, and research needed to best set standards for decontamination of meth lab sites and the resulting legal and policy implications.

Overview of Current States' Efforts—Legislation, Policy, and Guidelines

Concerns related to the cleanup and remediation of former methamphetamine laboratory sites (also referred to as clandestine laboratories) are frequently expressed to NAMSDL staff by our contacts in the states working to address these issues. In preparation for the National Methamphetamine Legislative and Policy Conference and the convening of our National Working Group on Cleanup and Remediation of Methamphetamine Laboratory Sites, NAMDSL conducted legislative research of ex-

isting statutes, regulations, operating policies, and guidelines related to the decontamination of these sites.

New statutes, regulations, local ordinances, and guidelines relating to the cleanup and remediation of methamphetamine laboratories continue to emerge. State and local governments are working to address different aspects of the indoor and outdoor environmental issues associated with clandestine laboratories. A few states have been dealing with the environmental contamination of these drug laboratory sites head-on for many years and have significant statutory and regulatory provisions in place. Others on the federal, State, and local level have more recently begun to address these concerns.

Note Regarding NAMSDL's Research

Please note that our research is ongoing in this arena. Additionally, we understand that we may not be currently familiar with all of the different categories of laws that states may be using for cleanup and remediation because of the wide breadth of this issue. NAMSDL continues to collect numerous cleanup ordinances from local governments that cannot currently be obtained through our legal research database.

Additionally, please note that a number of states have put together guidelines or guidance documents for the cleanup and remediation of methamphetamine laboratories. We have defined certain documents as guidelines based on the content provided (see attachments of states' specific examples). Documents we are considering guidelines are those that contain detailed scientific sampling information and remediation standards for methamphetamine. Guidelines do not have the force of law by themselves but in some instances, for example, local governments have passed ordinances requiring cleanup contractors to abide by the procedures and cleanup standards that the guidelines establish. Some of the more comprehensive guidelines include information on chemical toxicity, laboratory analytical methods, asbestos guidelines, and field and sampling guidelines. Those documents that may have the term "guideline" in the title but we have considered them as "guidance documents" are those that tend to be less detailed in nature and do not address a remediation standard for methamphetamine.

Scope of Statutes

Based on a review of existing state statutes specifically relating to the cleanup and remediation of clandestine laboratories, the application of the cleanup and remediation provisions varies from state to state and is determined by the type of substance being illegally manufactured. Some states only address the manufacture of methamphetamine. Other state statutes apply to the manufacture of controlled substances generally, as they are defined in the state code, or more specifically to "schedule I or II controlled substances." In addition to the above listed, some states also include the manufacturing of ecstasy and LSD. Thus, it appears that some states are focused specifically on the illegal manufacture of methamphetamine whereas other states have taken a broader approach in their statutory language.

Use of Contractors for Cleanup and Remediation

Several state cleanup laws and regulations address the use of a state-approved environmental cleanup contractor and/or a certified industrial or environmental hygienist. Only three states, however, have tackled by statute or regulation the contractor and employee training and certification in detail. In Washington, Oregon, and Arizona, not only does the contractor need to be certified, but the employees and supervisors must all go through a specific training and certification process. According to NAMSDL's contacts within these states, stricter enforcement is needed with respect to the monitoring of contractors and ensuring that they are using certified employees and proper remediation and sampling procedures. Part of the process for monitoring the contractors is the requirement of some type of work plan to be submitted to the overseeing agency. A few states currently require by statute or regulation a work plan to be prepared by the contractor. A work plan may include photographs and/or drawings and a written description of the contaminated property, procedures for the decontamination process, a description of the personal protective equipment that will be used, health and safety procedures, and a list of post-decontamination testing that will be completed. In addition to above discussed training and certification requirements, Washington has also established a training provider certification process.

Standards for Decontamination

Currently, approximately seven states have established—by statute, regulation or guideline—a feasibility-based decontamination standard specific to methamphetamine. Feasibility-based is a cost-comparative term used to determine what the eco-

nomics are of cleaning a meth lab; simply put, "how much do we want to spend to clean it up?" Those states include Alaska, Arizona, Arkansas, Colorado, Minnesota, Tennessee, and Washington. The two most commonly provided measurements are 0.1μg/100cm^2 and 0.5μg/ft^2. There is an ongoing debate about the effectiveness of using a feasibility-based standard. Because research into the long-term health effects associated with clandestine laboratories has just recently begun, health or risk based standards have not been determined yet. These standards are usually determined by asking, "to what level do we need to minimize (clean) a contaminant in order to prevent the average person from having adverse health effects (e.g., become sick)?" This is based upon the toxicology of a compound, the concentration of the contaminant, and the amount of time a person will be exposed to that concentration. Minus the research needed to set these standards, states are relying on the limited research available to determine the appropriate feasibility-based standard that must be met by a cleanup contractor and/or industrial hygienist in order to certify that a property has been decontaminated.

Property Notices re: Former Meth Lab Sites

There are also several notice issues involved in the cleanup and remediation of properties contaminated by clandestine laboratories. A few states have statutory and/or regulatory provisions that require a particular agency to maintain a list of contaminated properties and/or a list of certified contractors that must be available to the public. A property is generally removed from the contamination list once it is certified by the appropriate entity as decontaminated. Another issue relates to the notifying of the county recorder's office that a property has been deemed contaminated. In Washington, the local health officer is required to file a copy of an order prohibiting the use of a property with the county auditor. If, after the remediation process is complete, the local health officer determines that the property has been decontaminated, s/he is required to record a release for reuse document in the real property records of the county auditor where the property is located. The county auditor provisions are located within the purview of the chapter on the decontamination of illegal drug manufacturing or storage sites. Additional states may have similar statutory and regulatory provisions relating to the recording of property contamination in other parts of the state code.

Numerous states have become concerned with presently or formerly contaminated properties being sold, transferred, or rented without the buyer or occupant being made aware of the status of the property. Such disclosure issues and restriction on the transfer of the property have been addressed in many different areas of the state code. Arizona, Alaska, and Oregon, in particular, address this issue within the purview of their cleanup laws and regulations. The statutes and/or regulations generally require the seller to notify the buyer in writing that illegal drug manufacturing occurred on the premises. A buyer then may cancel the purchase contract within a certain number of days after receiving notice of the property's status. In Oregon, if the seller fails to properly notify the buyer, the buyer may bring suit to recover damages for any losses. In Arizona, the seller is subject to civil penalties for any harm that was caused for his/her failure to comply with its notice requirements.

Local Ordinances

As mentioned earlier, numerous local governments (e.g., cities, municipalities) have passed ordinances that relate to the cleanup of methamphetamine laboratories. Some of the ordinances address nuisance and local building code issues. Other ordinances address cleanup and remediation directly. Ordinances can be found both in states that already have related statutes and regulations as well as in states that have not yet addressed the issue at the State level.

Current Considerations for NAMSDL's Drafting of a Model Act/Guidelines

From the discussions of this working group, existing research that the members have identified, and review of existing laws, policies, guidelines, and ordinances, NAMSDL has drafted the following outline for members' consideration at their final meeting at the end of April 2005. This preliminary outline suggests key components to be addressed in a model act or model guidelines that NAMSDL might draft:

State Agency Authority:

- oversight of cleanup program (with designated responsibilities to local health departments in regulation probably)
- set requirement for owner to clean property
- to promulgate related regulation
- keep database of properties deemed to be contaminated

- keep list of certified contractors and approved laboratories

Notification responsibilities:

- first responder/law enforcement/local health officer/building code officer/local county property records office
- owner
- posting on property

Contractors/Industrial Hygienists:

- certification
- training
- site safety responsibilities
- monitoring of contractors work

Preliminary Assessment and Work Plan

Decontamination Procedures

- for walls, furniture, ventilation system, variety of surfaces
- waste characterization and disposal

Confirmation of Decontamination:

- decontamination standards
- sampling methods
- laboratory analytical testing

After receiving feedback from the National Working Group on Cleanup and Remediation of Meth Lab Sites, the drafting committee of NAMSDL's Board of Directors will complete the draft model act/guidelines. Once the draft is approved by the Board, NAMSDL will distribute the resulting model to our contacts in the states, including Governors and Attorneys General. The model will also be posted on NAMSDL's website (*www.natlalliance.org*).

Additional Research Is Needed

Working group members agree that informed, effective, health-based standards for cleanup and remediation cannot be established until more is known about the short- and long-term health and environmental consequences of meth production. A consistent theme from the working group's discussions is the need for further research. At their most recent meeting, these members concluded that research needs to occur on the following multiple tracks:

- Health-based studies (short- and long-term)
- Health-based cleanup standards
- Scientifically validated sample collection methods
- Scientifically validated remediation

Examples of specific research needs within these tracks suggested by the working group members include: identifying the primary chemicals of concern (COCs), determining persistent COCs, determining if meth should be the only indicator chemical, establishing the most effective remediation technique for a variety of surfaces (e.g., porous, semi-porous, nonporous), and indoor air assessments over time. Any research that addresses these concerns and questions would greatly benefits states' efforts related to decontamination of former meth lab sites.

Concluding Remarks

NAMSDL considers all of the Commission's model laws to be "living and breathing" documents that can offer guidance to states over time by incorporating new findings as necessary. The model act or guidelines that will emerge from the working group process and the Board's drafting will also be viewed as such. NAMSDL will incorporate the findings of new research and new developments in the science related to decontamination of meth lab sites into any model act/guidelines that is drafted for states' reference.

Thank you once again for the opportunity to share this information with you. I would be happy to answer any questions that you have as the hearing proceeds.

BIOGRAPHY FOR SHERRY L. GREEN

Sherry L. Green helped co-found the National Alliance for Model State Drug Laws (Alliance) in 1993 to promote the model state laws promulgated by the President's Commission on Model State Drug Laws (Commission). Ms. Green currently serves as Executive Director of the Alliance and was formerly the Associate Director of the Commission. As Associate Director, she was a primary co-author and editor of the Commission's five volume *Final Report* containing 44 model laws and policies on enforcement, education, prevention, treatment and community issues.

As Director of the Alliance, Ms. Green has established a legislative clearinghouse used by governors, state legislators, attorneys general and substance abuse specialists to track adoption of model law-related bills, monitor trends in drug and alcohol abuse policies, and identify pertinent studies, reports and programs. Additionally, she has created a national network of experts who provide technical assistance to state leaders on the model laws and drug and alcohol abuse policies. As a member of the network, Ms. Green drafts and analyzes legislation, assists with policy development, offers guidance on legal, technical and programmatic issues, facilitates formation of multi-disciplinary coalitions, and conducts or participates in legislative briefings, summits, and workshops. Ms. Green also makes numerous presentations on the model laws to national and state organizations and agencies.

Previously, Ms. Green spent eight years specializing in state legislative research and policy, analysis, drafting and education. She served as an Attorney with the American Prosecutors Research Institute (APRI), where she managed the model drug legislation project. During her tenure with APRI, she co-authored the *State Drug Laws for the 90s* resource book. Ms. Green established and served on the Uniform Controlled Substance Act (UCSA) Task Force which produced model legislation adopted by the National Conference of Commissioners on Uniform State Laws. Additionally, the Forfeiture Task Force wrote a model act passed in whole or in part by several states, including Louisiana, Georgia, Hawaii, and Arkansas. Prior to her work with the Institute, Ms. Green clerked for a D.C. Superior Court Judge and analyzed child support laws for the American Bar Association.

Ms. Green brings to her legislative work a background in law. She received her Juris Doctor from the George Washington University's National Law Center and is a member of the D.C. Bar. Ms. Green also received a Bachelor's degree in Political Science-Economics from the University of Montana.

Chairman BOEHLERT. Thank you very much.

Dr. Martyny.

STATEMENT OF DR. JOHN W. MARTYNY, PH.D., C.I.H., SENIOR INDUSTRIAL HYGIENIST, DIVISION OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES, NATIONAL JEWISH MEDICAL AND RESEARCH CENTER

Dr. MARTYNY. Mr. Chairman, Members of the Committee, first I would like to thank you very much for affording me this opportunity to come here and give you an idea of what we are finding in the research that we are conducting looking at chemical exposures in these illegal methamphetamine laboratories.

I have submitted written testimony, which gives you a lot more detail than I could go into in the next five minutes, and I hope that will become part of the record. But I will try to summarize some of the things that we found, and really give you an idea of how important these exposures could actually be.

We were initially contacted by local law enforcement in Colorado, and they were concerned because a number of their law enforcement individuals were going into these labs and reporting symptoms. About 50 percent of law enforcement officers going into these labs will have some problem when they come out of the lab. Typically, it might be as easy as burning eyes, burning nose and throat, but can be much worse. In some cases, officers actually have to go to the hospital. We have several officers that have been taken to the hospital after responding to these methamphetamine labs.

We were very, very lucky in that law enforcement allowed us to go with them, actually out to the labs. We went in right behind them, actually a little ways behind them, just to make sure. And we quickly got to look at the contamination that is in these labs and the chemicals that the police are exposed to. We were also extremely lucky and fortunate in that the Drug Enforcement Administration was able to work with us and allow us to do our own cook. So to date, we have done quite a few meth cooks using the different methodologies of cooking meth and trying to decide what kind of exposures we really have. And I have to tell you, we have been very surprised. Generally speaking, the chemicals that are used result in extremely high concentrations of exposure to iodine, hydrogen chloride, phosphine gas, and anhydrous ammonia, actually levels that exceed what NIOSH, the National Institute of Occupational Safety and Health, considers to be immediately dangerous to life and health during the actual cook. So these are not trivial exposures.

The bad thing is that these exposures move not from just the area that the cook is but throughout the house or throughout the building where the cook has occurred, and in fact, we were able to do one cook in a hotel room and found out that we actually had the exposures move to each room bordering that particular room, which is a real concern for us, because now we are talking about not only the people doing the cook, but also third parties.

When we were going into the actual labs themselves, the one thing that we found is virtually every lab that is contaminated with methamphetamine itself, the methamphetamine is essentially all throughout the lab, on the walls, floors, ceiling, in the carpeting. It moves well outside the cook area, and really offers contamination—or offers people to get exposed that were not even remotely concerned with the methamphetamine cook. So we get very, very concerned about third parties. We get very, very concerned about children that may not be present during the cook but, in fact, come into the house after the cook into an extremely contaminated house. Recently, the Colorado Department of Public Health and Environment has looked at a lot of the data that we have accumulated with types of contamination we see well after the cook and has found that the toxicologists would expect kids exposed to those levels to actually show permanent damage, especially to the respiratory tract, possibly to the nervous system, and so we are very, very concerned about this.

As much as we do know, there is a lot that we don't know. We don't know how long it lasts in the house. Unfortunately, all of the houses that we have cooked in, we have had to actually destroy the house right after our cook for liability purposes. And so we have no idea. Does this last six months, a year, two years? We don't know.

How do activities reduce exposures in the house? What happens when you vacuum? If you have got a carpet that is soaked with methamphetamine, what happens when you vacuum the house? What are the exposures to the kids and the other people around? We have done very little on methamphetamine clean up. What are the best ways to clean it up? As was mentioned, as Sherry mentioned, some people feel the house needs to be destroyed. Some peo-

ple feel that all that needs to be done is for it to be aired out. We think that there is a lot to be learned there.

We would really hope that we can count on your support for this bill. We are really interested in bringing EPA into the arena. We would also like to see the Centers for Disease Control (CDC) be brought in. CDC is doing some studies now. We would like to see them do more, looking at why we are seeing some of these health effects for people that—even occupying just houses that had been used for cooks in the past.

We certainly appreciate the support of NIST being able to look at new methodologies and also the National Academy of Sciences.

I do have a short film clip that I would like to show you of a cook that we actually did.

[Film.]

This is a cook using the anhydrous ammonia method of cooking. And you will see actually a tube here where we actually are sampling the air to see what levels we have and to see how—there are tremendous amounts of anhydrous ammonia, probably around 2,000 parts per million. This is actually stirring. You can see the anhydrous ammonia is actually coming off. That was the detector tube. We had about 2,000 when we pulled that and it was instantly saturated. This is pH tape, and it is actually changing color just due to the atmosphere in the house. The pH is so high, it just changes the pH tape immediately. And this is actually a mixture of hydrogen chloride and methamphetamine. It is going into the air where the cook is being conducted.

Thank you very much.

[The prepared statement of Dr. Martyny follows:]

PREPARED STATEMENT OF JOHN W. MARTYNY

My name is John W. Martyny. I am an Associate Professor and an industrial hygienist at the National Jewish Medical and Research Center. I also hold the rank of Associate Professor in the Department of Preventive Medicine at the University of Colorado Denver/Health Sciences Center. I wish to inform you of recent research that we have conducted regarding the chemical exposures associated with the clandestine manufacture of methamphetamine. Our research has indicated that very high levels of toxic chemicals are produced during methamphetamine "cooks;" and that hazardous chemical exposures can be expected to persist in rooms and buildings for an extended period of time.

Prior to discussing our research findings, I wish to acknowledge the contributions made by many groups in conducting this research. The study was initiated due to exposure concerns expressed by local law enforcement officials in Colorado, including the North Metro Task Force in Denver, Colorado. We also obtained enthusiastic help and assistance from local and State law enforcement, fire, and emergency services personnel from Colorado, New Mexico, and Texas. I have attached to this testimony a complete list of participating organizations.

In order to obtain exposure data, we collaborated with agents and chemists working for the U.S. Drug Enforcement Administration who conducted controlled methamphetamine "cooks" while we measured the chemicals being released. Without their help, this information would not have been obtainable. DEA Administrator Karen P. Tandy has been very supportive in this effort. Senator Ben Nighthorse Campbell was also helpful in providing some initial funding for our effort.

We have received financial support from the U.S. Justice Department through Community Action Policing Services, the Centers for Disease Control/National Institute of Occupational Safety and Health (NIOSH), and HealthOne Foundation of Colorado. We gratefully acknowledge the help we have received from the National and the Colorado Drug Endangered Children Coalitions. Full reports of our studies can be obtained from either of their websites (*http://www.colodec.org/* and *http://www.nationaldec.org/*).

Introduction

Our nation faces an unprecedented epidemic of clandestine methamphetamine drug manufacturing. Seizures of methamphetamine drug laboratories continue to rise, putting police and fire first responders at risk for a variety of hazards. For example, the number of seizures in my home State of Colorado has risen dramatically from 31 laboratories in 1998 to 687 laboratories in 2002. First responders and susceptible third parties, especially children, are at risk for exposures to the chemical hazards as well as the fire, explosion, and safety hazards inherent with the clandestine manufacture of methamphetamine.

Unfortunately, very little research has been conducted regarding the specific exposure hazards associated with illegal methamphetamine manufacture. The lack of knowledge has produced four serious problems:

1. Inconsistent medical treatment of chemically exposed individuals:

Because of the lack of information on exposure levels, there has been very poor information on which to establish appropriate medical treatment plans. Health care providers providing treatment to individuals exposed at methamphetamine laboratories were forced to provide generic, often expensive, and probably to some extent unnecessary, medical testing.

2. Inconsistent recommendations for protection of emergency service and law enforcement workers:

The use of personal protective equipment (PPE) by emergency services and law enforcement personnel has varied widely by jurisdiction due to the lack of information regarding chemical exposures at the sites. Some jurisdictions utilize self-contained breathing apparatus (masks with air tanks worn on the back) and chemical-protective suits while neighboring jurisdictions use no respiratory protection or chemical-protective suits at all. Other agencies switch from self-contained breathing apparatus to air-purifying respirators (face masks with filters) after the initial assessment, while some agencies remain in the highest levels of protection. These inconsistencies are due to a lack of information from scientifically-based studies of the exposure risks while conducting these operations.

3. Preventable injuries and illness occurring among emergency service and law enforcement workers:

Even though many agencies use some form of PPE, there are increasing reports of emergency service and law enforcement personnel being injured while conducting investigations at clandestine methamphetamine laboratories. The Centers for Disease Control reported 59 events between 1996 and 1999, associated with methamphetamine labs where emergency services personnel were injured during the investigation. The number of injured responders was 155, with the most predominant symptom reported being respiratory irritation.

Studies conducted by Dr. Jeffrey Burgess, while at the University of Washington, investigated the symptoms reported by emergency responders during illegal methamphetamine laboratory seizures. Responders predominately reported general irritant symptoms, but least one case of phosphine gas exposure (a gas that may be lethal at low concentrations) was reported. In a questionnaire study of emergency responders, 53.8 percent reported at least one illness while conducting laboratory seizures with most symptoms appearing to be related to chemical exposure at the laboratory site. The primary symptoms reported were headache and mucous membrane irritation.

Although the predominant symptoms were irritant symptoms, a number of responders were found to have an accelerated decline in their ability to breathe (determined by a breathing test which measures how fast they can blow air out of their lungs) that may have been related to work in drug laboratories. The majority of symptoms reported by officers occurred during the processing phase of the laboratory seizures but this phase was also the phase in which the most time was spent in the laboratory area. The use of respiratory protection did seem to reduce the incidence of symptoms while investigating these laboratories. There has also been anecdotal evidence of these chemical exposures causing permanent lung damage, but the actual cases have not been reported in the literature.

4. Inadequate hazards training and education of emergency services and law enforcement personnel:

If the exposures encountered in methamphetamine laboratories are not known, then it is difficult to properly educate personnel about the risks they may encounter when entering an illegal laboratory. Although the chemicals used in the production of methamphetamine are well known, first responders do not know which of these

chemicals by themselves or in combination may be harmful and what routes of exposure present the most severe risks. Industrial hygienists commonly approach such problems by quantifying the actual exposures using air sampling, modeling, and in some cases teamed with occupational environmental medical specialists using biological markers (chemical traces in urine or blood, for example) to determine what the exposure has been. Major exposure assessment issues include individual chemical characteristics as well as potentially complex interactions of chemicals that might result in unusual and potentially very toxic mixtures.

Summary of our research findings

Our research was designed to determine the potential chemical exposures to law enforcement and emergency services personnel responding to clandestine methamphetamine laboratory seizures. As our research continued, however, we became increasingly concerned, as well, about the potential exposures to third party individuals that were incidentally exposed to these laboratories. Chief among these are concerns was the health and well being of the children associated with these laboratories. Approximately one third of the methamphetamine laboratories investigated by law enforcement involve children. In addition, there have been instances of families unknowingly moving into a building that had previously been a methamphetamine laboratory. The occurrence of a clandestine "cook" was only evident after significant lung problems were diagnosed in the children.

Methodologies

Our research has consisted of two phases; a series of controlled "cooks" documenting exposures during differing manufacturing methods and the sampling of conditions present at a number of laboratories being investigated by law enforcement officers. The controlled "cooks" were designed to determine the levels of contamination associated with the "cooks" and the area over which these exposures are spread. The sampling of laboratory investigations was conducted in order to determine residual exposures present after the "cooks" have been conducted.

The controlled methamphetamine "cooks" were conducted in three residences and a hotel that were slated for demolition. These "cooks" were conducted by law enforcement chemists using similar chemicals and equipment, and under similar conditions typically observed in clandestine laboratories. Two of the "cooks" were conducted using the red phosphorous reduction method and two used the Birch method, which uses anhydrous ammonia and lithium metal to produce methamphetamine. Airborne sampling for hydrochloric acid, iodine, phosphine, and anhydrous ammonia was conducted using methods specified in the National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods. Real-time analysis for hydrochloric acid and phosphine were also obtained using an ITX Multi-Gas Monitor. Real-time analysis for anhydrous ammonia was obtained using colorimetric detector tubes. Airborne and surface levels of methamphetamine were determined using a method being developed for NIOSH by Data Chem Laboratories in Salt Lake City, UT. The levels of chemicals observed were compared to the American Conference of Governmental Industrial Hygiene (ACGIH) Threshold Limit Values (TLV) and the NIOSH Immediately Dangerous to Life and Health Levels (IDLH).

Controlled Cook Results

Red Phosphorous "Cooks"

The red phosphorous method of producing methamphetamine involves the use of a number of solvents, iodine, hydrogen chloride gas (frequently manufactured using sulfuric acid and rock salt (NaCl)), red phosphorous, sodium hydroxide, and ephedrine or pseudoephedrine. This method requires heating of the materials as well as a reasonable amount of manipulation (filtering and bubbling hydrogen chloride into the solution) that generally results in significant contamination by the primary chemicals as well as other chemicals produced by the combination and heating of the primary chemicals.

Our analysis of the exposures present during red phosphorous "cooks" has revealed significant exposures to solvents, phosphine, iodine, hydrogen chloride, and methamphetamine aerosol. Phosphine is a gas produced when the solution of iodine, water, ephedrine, and red phosphorous is heated. It is a gas that may cause severe pulmonary irritation resulting in pulmonary edema and death. At lower levels phosphine may cause nausea, vomiting, headache, and chest tightness, symptoms frequently reported by law enforcement personnel exposed to these laboratories. Unfortunately, there have also been several deaths reported in "cooks" that have possibly been associated with phosphine exposures. Our controlled "cooks" have resulted in measured phosphine levels ranging from not detectable to as high as 2.9

ppm, approximately three times the short-term occupational exposure standard of 1.0 ppm.

Although a seemingly harmless chemical when applied to the skin, iodine can be very toxic when inhaled. The level of iodine considered by NIOSH to be Immediately Dangerous to Life and Health (IDLH) is only two ppm and levels lower than 0.1 ppm are required in the workplace. After a red phosphorous cook, iodine contamination can generally be found on many surfaces in the "cook" area and we have measured levels as high as 0.16 ppm in the air during the "cook." The amount present in the air seems to depend upon the amount of water used during the "cook" and the temperature of the "cook" with hotter "cooks" resulting in higher levels of airborne iodine.

Many different types of solvents are utilized during the production of methamphetamine. Methanol and ether are commonly used to extract the pseudoephedrine or ephedrine and Coleman Fuel is commonly used to separate the methamphetamine base prior to acidification. All of these chemicals are extremely flammable; and many clandestine methamphetamine laboratories are found after the explosion and fire. These chemicals may also cause exposures resulting in nervous system damage as well as internal organ damage (liver, kidney, etc.). This is especially true for children with developing nervous systems.

Hydrogen chloride is produced during the acidification phase in all methamphetamine "cooks." It is typically used to precipitate the methamphetamine out of the organic solution. It can be produced by adding aluminum foil to muriatic acid (hydrochloric acid) or by mixing sulfuric acid with rock salt. In either case, large amounts of hydrogen chloride are produced and become airborne in any red phosphorous "cook." We have found levels as high as 155 ppm during the "cook" and average levels of hydrogen chloride are almost always over the occupational level of 2.0 ppm. This chemical can cause severe upper respiratory tract damage and may result in permanent lung damage to adults and especially to children and infants with a growing respiratory system. The current NIOSH IDLH is 50 ppm, which is the level that we frequently encounter during these cooks. The potential for injury due to hydrogen chloride is very high.

While the hydrogen chloride is being used to precipitate the methamphetamine out of solution, a significant amount of methamphetamine itself is bubbled out of the solution and into the air. The methamphetamine can then be found to plate out on surfaces quite distant from the cook, and levels of methamphetamine as high as 16,000 $\mu g/100\ cm^2$ can be found in houses that were used to produce methamphetamine. These levels can persist and we typically find as much as 300 $\mu g/100\ cm^2$ in homes that were used for methamphetamine production, even as long as six months after the last use. Airborne levels of methamphetamine may be as high as 5000 $\mu g/m^3$ during the cook and almost assures that anyone in the vicinity of the cook will test positive for methamphetamine, even infants. Due to this widespread deposition of methamphetamine throughout the house, virtually all items within the house as well as all people, pets, toys, etc., become contaminated with methamphetamine.

In general, anyone present during the clandestine production of methamphetamine using the red phosphorous method is highly likely to become exposed to toxic levels of phosphine, hydrogen chloride, iodine, solvents, and to high levels of the drug itself. These levels will be exceptionally high for children and infants who, due to their developing physiology and their inquisitive oral habits, will be exposed to high levels of these chemicals at a very sensitive time of their development. The final cost to these children may not be identified for many years to come.

Anhydrous Ammonia "Cooks"

The anhydrous ammonia "cooks" differ from the red phosphorous "cooks" in that they use anhydrous ammonia and a reactive metal (lithium or sodium) instead of red phosphorous and iodine. This method of production still produces significant amounts of solvents, hydrogen chloride and methamphetamine but phosphine and iodine are not produced. The levels of anhydrous ammonia that are produced during these "cooks" are significantly above NIOSH IDLH levels and the likelihood of serious injury to the respiratory system is high. Ammonia levels easily reach 1000 ppm with average levels of 500 ppm common. The current NIOSH IDLH is 300 ppm, well below the levels that we observe during the "cooks." Adults exposed to these levels may be expected to have injury to the respiratory system as well as eye damage. The reactions of children and infants can be expected to be much greater and to persist for longer periods.

Conclusions

Our studies indicate that methamphetamine production and use will have far-reaching effects upon the individuals using this drug, their children, others in the vicinity, and even individuals moving into the "cook" areas well after the cook has moved on to another area. It is unlike the use of many drugs in that there is not only an exposure to the drug itself, but also to the hazardous and toxic chemicals used for the drug's production. It is almost a given that the following will occur:

- The cook and anyone assisting the cook will be exposed to a number of chemicals (phosphine, hydrogen chloride, iodine, anhydrous ammonia, and solvents) at levels that are above those allowed by law in occupational settings and, in some cases, above those levels determined to be "immediately dangerous to life and health."
- Third party bystanders, including children and infants, are likely to be exposed to levels of those same chemicals that may cause severe and long-lasting health concerns. This is especially true of children and infants who are rapidly growing and more susceptible to chemical exposures in the home environment.
- Law enforcement, fire, and emergency services personnel may be exposed to high levels of these chemicals as they investigate clandestine methamphetamine laboratories. This is especially true if they enter an area where a laboratory is in operation but also may be true if the laboratory is not in operation at the time. Residual chemicals deposited on surfaces of the house as well as boxes of chemicals stored in the house may result in significant exposures to investigating personnel.
- The area used to produce methamphetamine and surrounding areas will be contaminated with a number of chemicals including hydrogen chloride, iodine, solvents, and the methamphetamine itself. Levels of these compounds may remain in the area for an extended period of time (at least six months) and may result in exposures to individuals that were not associated with the "cook" and, in fact, never knew of the existence of the methamphetamine production.

What Don't We Know?

What are the long-term health effects for exposed children?

In spite of all we do know about the potential effects of methamphetamine production on the community, there is still much that we don't know. At this time we do not have much information on the long-lasting health effects caused by exposure to clandestine methamphetamine laboratories. This may seem like information that is easily obtainable, but several factors have limited our knowledge in this area. The explosion of these clandestine laboratories has occurred during the last 10 years and has been studied for even a shorter period. This combined with laws limiting the collection of health information from individuals has hampered our ability to track exposed individuals for long periods of time.

Information regarding long-term effects in children is especially needed, since the knowledge of potential physiologic and psychological conditions resulting from these exposures in children may help in our treatment for these individuals. Some physicians and psychologists working with methamphetamine lab exposed children have reported significant concerns that seem to be unique to this exposure. Indeed, since almost all of the children from these laboratories test positive for the drug itself, which we have found on most surfaces of the house, exposure to the other chemicals is also likely. Many of these chemicals can be related to pulmonary problems such as asthma and pulmonary fibrosis as well as liver and nervous system damage. The drug itself is a neurological agent that can result in significant psychological conditions in adults using the drug. Are these same conditions possible in the exposed children? Is it possible that even more severe developmental, psychosocial, and physical effects may occur in children exposed over a long period of time? We know that the brain undergoes significant changes in early childhood. Does exposure to methamphetamine at this time result in significant effects upon brain development that will not be recognized until later in life?

What are the long-term chemical exposures associated with methamphetamine laboratories?

As part of the process in determining the effect of methamphetamine and its precursor chemicals on children, we need to determine the magnitude of the exposures to children present in a home not only during, but after the "cook" has taken place. To date, we have only conducted controlled cooks in structures that were slated to be demolished within the next few days. This was done to reduce liability for people

entering the structure after the "cook." We now need to conduct controlled "cooks" in structures located in a secure location so that we can follow the exposures over time. What chemical exposures exist in the house a day after the cook? What about a month after the cook? Are the exposures associated with the house at a year post-"cook" still dangerous? How do normal activities such as vacuuming, cleaning, cooking and other activities affect these exposures? How do the potential exposures to infants crawling around the house differ from the exposures to adults? All of these questions are important in determining the potential health effects to look for in children as well as other adults residing in the building.

What are the best methodologies to use to control the spread of chemical contamination into the community?

Currently law enforcement agencies that take evidence, suspects, and children out of a suspected methamphetamine laboratory are confronted with decontaminating the individuals and materials. Some agencies conduct the decontamination on-site and others transport the individuals to a hospital for decontamination. In some cases, individuals have been transported without decontamination and hospital personnel have become ill from the exposures. What is the best methodology to use for decontamination? Which decontamination methods result in the least amount of trauma for children associated with methamphetamine labs? We have been told that a child able to take his or her favorite toy or object from the house may suffer much less trauma. Are there ways that this can be done? Can we make decontamination child friendly? These are questions that, when answered, may make a drug raid much less traumatic for the children innocently involved.

What are the risks of moving into a house that has been used as a methamphetamine lab?

We currently know that individuals moving into a home that has been used as a methamphetamine laboratory often have respiratory problems. This is especially true of children or adults with asthma or other respiratory problems. At this time we do not know what chemicals cause these symptoms, although many involved in the process affect the respiratory system. We do know that these houses seem to have elevated levels of methamphetamine but we have not tested the homes for other compounds that may cause respiratory symptoms.

What is the best methodology to use in decontaminating a residence that has been used as a clandestine methamphetamine laboratory?

To date a number of states have developed standards and methodologies for the cleanup of methamphetamine labs. These standards vary from state to state although many states have similar standards. Are there specific remediation steps that should be taken in all decontamination efforts? What decontamination procedures result in the lowest residual level of chemicals in the house? At what chemical levels should most people be unaffected? Should we base the decontamination on methamphetamine levels as is currently the practice in most states or should we look for other chemicals? These questions need to be answered in order to determine when the decontamination program is complete and to prevent unnecessarily expensive decontamination.

As these questions get answered, there will undoubtedly be more questions as we begin to understand the complexity of this drug and its manufacture on society.

How will this bill help?

Voluntary guidelines for remediation. The "Methamphetamine Remediation Research Act of 2005" sets into motion several programs. It requires the U.S. EPA to establish voluntary guidelines for the remediation of previous clandestine methamphetamine laboratories. These guidelines will be able to combine the best of all of the existing State guidelines and provide a national guideline that will be available to all states, especially those that are new to the problem. The result will be more uniform remediation guidelines for the states that allow homeowners to more easily understand what is necessary to decontaminate their property. Additionally, a standard could unify potential practices for insurance providers, cleanup, disposal and remediation companies.

Further research. The bill also requires that the EPA support research so that we can begin to answer some of the questions previously mentioned as well as others. At this time, very little funding is being directed at what has become a national problem. Concerns regarding methamphetamine laboratories can be found in the media on a daily basis and many public concerns can't be adequately answered at this time. The bill may also provide funds that will allow us to scientifically determine the serious health effects associated with methamphetamine manufacture that

at this time we are only able to identify through anecdotal observations by medical and psychological professionals. Knowledge of the potential effects may help us help the children and infants innocently involved with this drug so that they are not medical or sociological burdens upon society later in their lives. The provision requiring EPA to coordinate research with the National Academy of Science will enable research to move forward in a directed fashion. The emphasis on the biological effect on children and first responders is especially noteworthy.

Better dissemination of better information. The bill requires that the information gathered by the EPA be disseminated to the states on a routine basis. This is extremely important since the dissemination of current information to all interested individuals is very important in establishing a uniform methodology of combating this national problem. This technology transfer must be accomplished on a regular and frequent basis to assure that the information is well used.

Better detection methods. The development of new testing methods may also be important to the determination of the risks involved in previous methamphetamine labs as well as identifying those laboratories in the field. In order to be effective, however, any new methods that are developed must be validated and standardized to assure that they provide accurate results in a timely fashion.

In closing, I appreciate the opportunity to acquaint you with the results of our research and the belief that we have regarding the importance of reducing this community hazard. Since beginning this work, it has been my privilege to meet many dedicated individuals that have devoted their time and efforts to protecting society and especially children from the potentially devastating effects of these clandestine methamphetamine labs. Much of the work in this area has been conducted by individuals on their own time and at their own expense. This shows the dedication of the many law enforcement, social services, public health, emergency services, and research people working on this problem today. Thank you again for your time.

Individuals and agencies participating in this project:

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BIOGRAPHY FOR JOHN W. MARTYNY

Education/Training

Ohio State University, Columbus, Ohio; B.S., 1968, Zoology

Humboldt State University, Arcata, California; M.S., 1974, Wildlife Biology

Colorado State University, Fort Collins, Colorado; Ph.D., 1987, Environmental Health

Positions and Honors

Professional Positions

1974–83 Environmentalist IV, Supervising Environmentalist, Tri-County District Health Department, Aurora, Colorado
1983–84 Graduate Teaching Assistant, Colorado State University, Fort Collins, Colorado
1984–86 Graduate Research Assistant, Colorado State University, Fort Collins, Colorado
1986 Certified in the Comprehensive Practice of Industrial Hygiene, American Board of Industrial Hygiene
1986–01 Senior Environmental Health Consultant, Tri-County Health Department, Commerce City, Colorado
1993– Assistant Clinical Professor, University of Colorado Health Sciences Center, Denver, Colorado
2001– Associate Professor, National Jewish Medical and Research Center, Denver, Colorado

Honors

1975 Colorado Environmental Health Association Presidential Citations
1977 Colorado Environmental Health Association Presidential Citations
1978 Colorado Public Health Association P.W. Jacoe Award for Excellence in Environmental Health
1979 U.S. Environmental Protection Agency Environmental Improvement Award
1996– Adjunct Faculty Member, College of Veterinary Medicine and Biomedical Sciences, Colorado State University

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Research Support

ONGOING

1. 1 P01 ES011810–01 Newman (PI) 09/12/02–07/31/07
   NIEHS
   Beryllium: Exposure, Immune and Genetic Mechanisms
   Core C

The major goals of this project are to determine the interaction of beryllium exposure variables and genetic factors leading to immune reactivity to beryllium and to CBD.
Role: Co-PI

2. Colorado Regional Community Policing Institute Martyny (PI) 07/15/04–08/30/05
Clantestine Laboratory Research
The major goals of this project are to study the potential chemical exposures at methamphetamine laboratories with regard to decontamination of personnel, suspects, and evidence.
Role: PI

3. Cadmus Subcontract 07/07/04–08/30/05
EPA Support for Policy Development, Analysis and Info
The major goals of this project are to develop a web-based mold remediation course for the U.S. EPA.

COMPLETED

1. CCU 812221A Newman (PI) 09/30/95–09/29/01
CDC/NIOSH
Chronic Beryllium Disease Among Beryllium Exposed Workers
The major goals of this project are to study the dose/response relationship for development of chronic beryllium disease in a beryllium machining plant and to characterize the aerosols/particulate exposure in beryllium machining. To determine the natural history of beryllium sensitization and disease.
Role: Consultant

2. R01 CCR815751–02 Newman (PI) 07/01/99–06/30/02
NIH
Dose of Beryllium Causing Sensitization and Disease
The major goal of this project is to determine the dose of beryllium in a metal machining plant that is sufficient to cause beryllium sensitization and disease.
Role: Co-PI

3. 20–NP–01–36–1 Martyny (PI) 01/01/03–07/31/03
DCJ
Methamphetamine Exposures to Emergency Personnel
The major goal of this project is to determine the chemical exposures to emergency services personnel investigating clandestine methamphetamine labs.
Role: PI

4. Health One Alliance Grant 06/30/03–05/31/04
Health One
Meth Exposed Children Program
The major goal of this project is to determine the chemical exposures to children exposed to clandestine methamphetamine labs.
Role: PI

Chairman BOEHLERT. Thank you very much, Dr. Martyny.
Mr. Hamilton.

STATEMENT OF MR. HENRY L. HAMILTON, ASSISTANT COMMISSIONER, PUBLIC PROTECTION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Mr. HAMILTON. Mr. Chairman, Members of the Committee, on behalf of Acting Commissioner Sheehan, we want to thank you for allowing the New York State Department of Environmental Conservation to present its views on the growing issue of methamphetamine use and manufacture in New York State and on how H.R. 798 may assist the state with its efforts to stem this problem.

Under Governor Pataki, New York State law enforcement, and public safety agencies, including this Department, are prioritizing a variety of means to stop illegal drug trafficking in New York State. Because of the Governor's various criminal justice initiatives, he was able to note in his 2005 State of the State address

that New York is now the safest large state in the Nation. But the growing threat of illegal drugs, like methamphetamine, makes it clear that we must continue to focus resources to quell this threat and continue our progress in protecting public safety. Governor Pataki has proposed legislation that would specifically target clandestine laboratories, also known as clan labs, which produce illegal drugs. The proposal imposes significant penalties upon the individuals who operate these labs as well as those who assist the operators by knowingly procuring, transporting, or storing the substances or equipment needed.

In New York State, these labs are most frequently located in rural and semi-rural areas. The rate at which these labs are proliferating is similar to that which began occurring in the Midwest during the mid to late 1900s. The slower growth of clan labs in New York likely stems from the state's ban on the sale of dietary supplements containing ephedrine alkaloids beginning in 1996. Similar federal legislation took effect in April of 2004. Without available sources of ephedrine alkaloids, clan labs have been forced to use products containing pseudoephedrines, such as over-the-counter decongestants, which are much more time-consuming to distill.

Nevertheless, methamphetamine use has begun to grow in New York State, particularly in New York City. This Department's environmental conservation officers, made up of both uniformed police officers and plain-clothes investigators, work with federal, State, and local law enforcement agencies in investigating these clan labs. In conjunction with these efforts, the Department's environmental remediation staff attempt to locate where chemicals from the clan labs have been disposed and coordinate the removal of chemicals that are an immediate threat to public health and the environment.

Environmental concerns at clan labs are extensive. A variety of toxic wastes result from the manufacture of methamphetamine. These chemicals may migrate into drinking wells, be drained into septic systems, or be dumped off site. It is estimated that for each pound of methamphetamine produced, four to six pounds of toxic waste are generated.

One of the substances of greatest concern in the manufacture of methamphetamine, of course, is anhydrous ammonia, used by farmers to fertilize crops. Methamphetamine manufacturers have been known to steal anhydrous ammonia from storage tanks on farms and at agricultural outlets in rural areas. Frequently, they leave the storage tanks open, allowing the anhydrous ammonia to empty from the tank. Anhydrous ammonia, as has been said, can cause severe irritation to the eyes, nose, throat, and lungs, can cause dizziness, chemical burns, and can seriously affect the central nervous system, even causing death. And of course, there is a potential for serious and very adverse environmental impacts.

Indoor environments may become contaminated when the chemicals and fumes, as we have just seen in the videotape, formed during methamphetamine production, penetrate or adhere to porous surfaces, such as upholstery, drapes, linens, carpeting, wallpaper, and sheetrock. Other surfaces, such as countertops and floors, can also be contaminated by spills and emissions.

As a result of these concerns, in August of 2004, Governor Pataki signed legislation requiring this Department to conduct a study on whether or not it would be feasible to introduce an additive into anhydrous ammonia that would prevent it from being used to manufacture methamphetamine. The statute requires that the Department issue a report and recommendations by April 1 of next year.

And in that context, we very much look forward to working with this committee on strategies to address this growing threat to public health and environmental quality.

Again, Mr. Chairman, thank you for allowing the Department of Environmental Conservation to provide our comments.

[The prepared statement of Mr. Hamilton follows:]

PREPARED STATEMENT OF HENRY L. HAMILTON

On behalf of Acting Commissioner Sheehan, I want to thank you for allowing the New York State Department of Environmental Conservation (Department) to present its views on the growing issue of methamphetamine use and manufacture in New York State, and on how H.R. 798 may assist the State with its efforts to stem this problem. I am Henry Hamilton, the Department's Assistant Commissioner for Public Protection.

Under Governor George E. Pataki, New York State law enforcement and public safety agencies, including the Department, are prioritizing a variety of means to stem illegal drug trafficking in New York State. Through the initiatives which New York's criminal justice agencies have put in place, the Governor was able to note in his 2005 State of the State address that New York is now the safest large state in the Nation. But the growing threat of illegal drugs like methamphetamine makes it clear that we must continue to focus resources to quell this threat and continue our progress in protecting public safety. Governor Pataki has proposed legislation that would specifically target clandestine laboratories (clan labs) which produce illegal drugs. The proposal also makes possession of specific ingredients used to illegally manufacture controlled substances with the intent to manufacture such controlled substances a crime. The Governor's proposal also imposes significant penalties upon the individuals who operate these laboratories as well as those who assist the operators by, among other things, knowingly procuring, transporting or storing the substances or equipment needed to operate the laboratories.

While I will focus today on the Department's role, I want to emphasize the importance of all the involved agencies, working together, to combat this growing public health and safety threat. Our State agencies have worked collaboratively to address many issues surrounding the illegal manufacturing of methamphetamine. It has become apparent that the problems associated with methamphetamine production, distribution and use, are very broad and are relevant to several State agencies. As such, a number of these agencies have started to coordinate and work toward a statewide strategy to deal with these issues. Part of this effort will be to continue to look at deficiencies in State law and develop proposals to deal with these issues.

Operated in secret, clan labs are used to produce chemical or biological agents, explosives, drugs or other hazardous substances. The most commonly occurring clan labs are used to produce the drug methamphetamine. In New York State, these labs are most frequently located in rural and semi-rural areas. According to the New York State Police, between 1989 and 1999, there were only four methamphetamine laboratories found in New York State. Since then, the number of labs has risen quickly and steadily, from eight in 2000 to 19 in 2001, 45 in 2002, and 73 in 2003. The rate at which these labs are proliferating is similar to what began occurring in the Midwest during the mid to late 1990s.

There are about 150 different ways to manufacture methamphetamine. Recipes are readily available, including on the Internet, and so are the ingredients. In New York State, the two most common manufacturing methods are known as the "Birch" method and the "Red Phosphorus" or "Red P" method. The former is found mostly in western New York State and some basic ingredients are pseudoephedrine/ephedrine, anhydrous ammonia, lithium, ether, water and hydrochloric acid. The latter method, found mostly in central and northeastern New York State, utilizes, in addition to pseudoephedrine/ephedrine and hydrochloric acid, hydriodic acid, iodine, red phosphorous from matchbook striker plate or road flares, and lye.

To date, fewer clan labs have been identified in New York State than in many other areas of the country, and those that have been found occur mostly in areas

near the Pennsylvania or Canadian borders. The slow growth of clan labs in the state likely stems from the state's ban of the sale of dietary supplements containing ephedrine alkaloids in 1996. Similar federal legislation only took effect in April 2004. Without available sources of ephedrine alkaloids in New York State, clan labs have been forced to use products containing pseudoephedrines, such as over-the-counter decongestants, which are time-consuming to distill into illegal methamphetamine drugs. Nevertheless, methamphetamine use has begun to grow in New York State—particularly New York City.

The New York State Office of Alcoholism and Substance Abuse reports an increasing trend in methamphetamine treatment admissions in New York State. There were approximately 500 admissions in 1996 with an increase to almost 1,150 in 2003. Significantly, much of this increase is attributable to clients whose primary substance abuse involves methamphetamine. The primary route of administration by users is oral, followed by smoking, inhalation and injection, respectively.

The Department's Environmental Conservation Officers (ECOs), made up of both uniformed police officers and plainclothes investigators, work with other federal, State and local law enforcement agencies in investigating these clan labs. The criminal investigations on which the ECOs focus involve the threat to human health and the environment, particularly the illegal disposal of hazardous waste, and toxic substances which may have been released into the environment. Violations of the New York State Environmental Conservation Law by clan labs include misdemeanor and felony pollution charges.

The Department's environmental remediation staff includes responders with expertise in the identification and clean up of contaminated sites, including those at which the volatile chemicals used in the manufacture of methamphetamine are found. In conjunction with the efforts of the ECOs, remediation staff attempt to locate where chemicals from the clan lab have been disposed, perform an initial identification of those chemicals found, and coordinate the removal of chemicals that are an immediate threat to public health, safety and the environment. Given the volatile nature of the chemicals used to manufacture methamphetamine, these activities are hazardous, and require specialized training to ensure staff safety.

Environmental concerns at clan labs are extensive. A variety of ignitable, corrosive, toxic or reactive wastes can result from the manufacture of methamphetamine. Red phosphorous, lithium, and many other chemicals used during production of methamphetamine are also highly flammable or combustible. The improper handling or storage of these items by methamphetamine users and producers increases the potential for fires and explosions. Furthermore, these chemicals may migrate into drinking wells; be drained into septic systems; or be dumped off-site. It is estimated that for each pound of methamphetamine produced, four to six pounds of toxic waste are generated.

"Cookers," the people involved in making methamphetamine, may not know or care about the dangers of the substances which they are using. Labs, which can be located anywhere, from apartments and motel rooms to motor vehicles, can explode, endangering the lives of anyone in the lab, as well as those who may reside nearby. This can pose a particularly dangerous threat to children living in or near these labs. To ensure the safety of both law enforcement and remediation staff who must deal with these dangerous sites, and to facilitate evidence gathering, the Department believes guidance should be developed to ensure the effective use of resources and provide uniformity in responding to clan labs in New York State.

One of the substances of greatest concern in the manufacture of methamphetamine is anhydrous ammonia. This liquid, which is used on farms to fertilize crops, is both toxic and corrosive, and expands to 800 times its original volume when exposed to ambient air. Methamphetamine manufacturers have been known to steal quantities of anhydrous ammonia from storage tanks on farms in rural areas. Frequently, they leave the anhydrous ammonia storage tank open, allowing the anhydrous ammonia to empty out of the tank. As a gas, anhydrous ammonia reacts with moisture to form ammonium hydroxide, a corrosive substance that is irritating to the eyes, nose, throat, lungs, mucous membranes and skin. It can cause dizziness, chemical burns, and can seriously affect the central nervous system, even causing death. Exposure to ammonia vapors may result in pulmonary edema. Anyone who happens to come near such a tank as it is emptying is in danger. For the same reason, law enforcement personnel stopping a suspect after an anhydrous ammonia theft might be in danger. Of course, there is also a potential for adverse environmental impact from groundwater contamination. In addition, such thefts can place a significant financial hardship on the farmers from whom the anhydrous ammonia was stolen.

Environmental contamination may include indoor environments as well as outdoor environments such as soil, water supplies, septic systems and air. Indoor envi-

ronments may become contaminated when the chemicals and fumes formed during methamphetamine production penetrate or adhere to porous surfaces such as upholstery, drapes, linens, carpeting, and sheet rock. Other surfaces (e.g., furniture, counter tops, floors) can be contaminated by spills or emissions of chemicals during drug manufacture. The residues in these indoor environments can continually expose individuals until the contaminated surfaces are properly cleaned or the contaminated materials removed. Again, this type of environment can be a particularly dangerous setting for children living in or near these labs.

As a result of these concerns related to anhydrous ammonia, in August 2004, Governor Pataki signed legislation (Chapter 357, Laws of 2004) requiring the Department to conduct a study on whether or not it would be feasible to introduce an additive into anhydrous ammonia that would prevent it from being used to manufacture methamphetamine. The statute takes effect on April 1, 2005, providing the Department with time to work with the New York State Departments of Health, Agriculture and Markets, and the New York State Police to study and make recommendations on this important issue. The statute requires the Department to issue a report containing such recommendations by April 1, 2006.

As I previously mentioned, our State agencies have worked collaboratively to address many issues surrounding the illegal manufacturing of methamphetamine and we will continue this effort.

On behalf of Acting Commissioner Sheehan, I want to thank you for allowing the Department to submit its comments on the activities which we currently undertake to investigate and remediate clan labs. We look forward to working with the Committee on strategies to address this growing threat to the State's public health and environmental quality.

BIOGRAPHY FOR HENRY L. HAMILTON

Henry Hamilton is Assistant Commissioner for Public Protection with the New York State Department of Environmental Conservation. As Assistant Commissioner, he oversees the Department's Law Enforcement Division (consisting of 300 uniformed and plainclothes police officers), as well as the Forest Protection and Fire Management Division, Emergency Preparedness Office, and the Office of Environmental Monitors. Mr. Hamilton joined the Department in 1999. He had previously been with the New York State Attorney General's Office for 18 years, including nine years as Director of Investigations. Mr. Hamilton retired from the Army Reserve in 1999 after a 24-year career, active and reserve, with the U.S. Army Military Police. He obtained his Bachelor's degree in Criminology from Syracuse University, and his Master's degree in Criminal Justice from the University of Alabama. He is also a graduate of the U.S. Army Command & General Staff College.

Chairman BOEHLERT. Thank you very much, Mr. Hamilton. Thank you very much for your work.

Sheriff Howard, it is a pleasure to welcome you here.

STATEMENT OF MR. GARY W. HOWARD, SHERIFF OF TIOGA COUNTY, NEW YORK

Mr. HOWARD. Mr. Chairman and Members of the Committee, my name is Gary Howard. I am the Sheriff of Tioga County situated in the southern tier of New York. I want to thank you for the opportunity to come here today and discuss my experiences with the threats posed by methamphetamine production.

The explosive growth of clandestine methamphetamine labs over the last few years has presented a serious problem for law enforcement and local governments. Methamphetamine production activities within New York State have increased significantly over the last five years. Between 1989 and 1999, there were only four labs reported in New York State. Last year—or in the year 2003, the Tioga County Sheriff's Department had 28.

Exposure to the hazardous chemicals, the possibility of explosion, fire, and violent behavior are all common dangers associated with the production of methamphetamine. Meth users are oftentimes paranoid and agitated, always thinking everyone is out to get

them. This behavior leads them to use surveillance cameras and motion detectors as well as arming themselves to defend their operations. In 2003, October, a Tioga County man was shot to death over an argument of anhydrous ammonia. During that incident, there were seven people involved. Every one of them was armed with a firearm at the time of this shooting.

According to the New York State Department of Health, approximately 47 percent of all meth labs are found at residential properties. The operators of these labs are often neglectful in providing the basic needs of their family and normally live in substandard conditions. Many children live hand-in-hand with chemicals or toxic substance that are used in the production of meth. We have debriefed children from meth labs and have been told stories that they had to wear masks while mommy and daddy are in the kitchen "making stuff." One incident found a wife and a daughter sleeping while her husband was making meth in the kitchen. He mishandled some chemicals and a flash fire erupted, burning the house down. He resulted in getting second-degree burns, and we took his lab down.

Equipment, such as hypodermic needles, containers of anhydrous ammonia solvents, and ether are found in kitchens, bedrooms, and bathrooms of the homes. In rural areas, garbage from the process is often taken outside and disposed of. During a recent raid, deputies found a defendant dumping ether down a toilet trying to destroy evidence. At another raid, law enforcement personnel found four defendants in the middle of a cooking process. The fifth occupant of the residence was an 11-year-old boy who was wheelchair bound with cerebral palsy. This child had numerous exposures to the meth process, and subsequently was turned over to the Department of Social Services.

Meth cooking produces solid and liquid waste that can contaminate a building. It is not only possible but likely that residual contaminants are left on surfaces and absorbent materials, such as carpets, furniture, sinks, drains, and in the ventilation and drain systems. Solid waste product, referred to as "sludge," which is the leftover remnants of the process, is routinely dumped down the sinks, drains, and toilets or discarded outside along roads or in somebody's yard.

In preparation for taking down a suspected meth lab, local law enforcement will spend hundreds of hours in surveillance, background, and undercover work. Briefings of law enforcement, emergency medical service people, HAZMAT people, and fire departments take place to ensure the safety of all involved. The Occupational Safety & Health Administration (OSHA) and the Public Employee Safety & Health Bureau (PESH) regulated safety gear must be obtained and used, and in most cases, we used the New York State Police county HAZMAT team for the collection of evidence.

To further complicate this problem in the growing trend of meth is what are known as "box labs." These labs are—all of the equipment that is used to produce methamphetamine is put into a container, put into a trunk of a car, and in one night is used in one residence and then moved to another residence the following night where meth is made. We are running into these occasionally on the road.

The creation of H.R. 798 will extend help to local governments in the fight against this problem. The environmental impact of the production of meth may not be known for years to come. And the residual effects of the leftover chemicals pose a hazard to homeowners and tenants where labs were once located. Having standards and guidelines as outlined will help establish a protocol that in the future will help clean up meth sites and protect the public.

And I want to thank you for inviting me down here, Mr. Chairman.

[The prepared statement of Mr. Howard follows:]

PREPARED STATEMENT OF GARY W. HOWARD

Mr. Chairman and Members of the Committee, my name is Gary W. Howard; I am the Sheriff of Tioga County, located in the southern tier of New York. I want to thank you for this opportunity to appear today to discuss my experiences with the threats posed by methamphetamine production.

The Tioga County Sheriff's Office has the largest law enforcement presence within the county and operates a 102-bed correctional facility with 49 corrections officers and 32 law enforcement officers. There are five criminal investigators who investigate reported felony crimes to include all drug activity within Tioga County.

The explosive growth of clandestine methamphetamine labs over the last couple of years presents a serious problem for law enforcement and local government, and if left unchecked, has the potential to present far reaching problems for the future.

Methamphetamine production activities within New York State have increased significantly over the last five years. Between 1989 and 1999, there were four incidents reported for the entire State of New York. Since then, the incidence of these labs in New York State has risen annually, and totals 193. Eight in 2000; 19 in 2001; 45 in 2002 and 73 in 2003. Of these 193 labs, 28 were located in Tioga County and 25 in bordering Chemung County. The close proximity to Pennsylvania provides indicators for the number of labs found in New York. In 2003, 16 of the 58 labs found in Pennsylvania were in Bradford County, which boarders both Tioga and Chemung counties.

Methamphetamine labs present serious dangers to law enforcement, EMS personnel and other service providers, as well as the public at large. Exposure to hazardous chemicals, the possibility of explosion, fire and violent behavior are all common dangers associated with the production of methamphetamine. Meth users are often times paranoid and agitated, always thinking that everyone is "out to get them." This behavior leads them to utilize cameras and motion sensors, as well as arming themselves to defend their operation. A grave reminder of the fact that firearms and violence are common with these labs, occurred during two separate incidents, within one year of the other. In the fall of October 2003, a Tioga County man was shot to death over an argument about anhydrous ammonia. Seven people involved in this incident, admitted to being armed with a firearm at the time of the shooting. In March 2004, two Bradford County, Pennsylvania Deputies were shot to death while trying to serve an arrest warrant for an individual wanted for methamphetamine production.

Along with the inherent dangers presented by the suspects themselves, law enforcement personnel, service providers, and the public who live near or have reason to visit these labs face unseen hazardous chemicals, toxic waste and residue created during the meth cooking process. According to the New York State Department of Health, approximately 47 percent of meth labs were found in residential properties. The operators of these labs are often neglectful in providing for the basic needs of their family, and normally live in substandard conditions.

Many of the labs that are found are being conducted right in the kitchen or basement of the home. Chemicals such as Muriatic Acid, Acetone, solvents, and ether have been found in the kitchens, bedrooms and living rooms of the defendants.

Children of meth users have told stories of wearing masks while Daddy and Mommy "make stuff" in the kitchen. Children have been found sleeping in bed or on couches while their parents make meth in another part of the house.

One incident found that a wife and daughter were sleeping while her husband was making meth in the kitchen, during the process he mishandled one of the chemicals and a flash fire erupted, causing considerable damage to the residence and resulting in second degree burns to the husband.

Equipment such as hypodermic needles, containers of anhydrous ammonia, solvents, and ether and are found kitchens, bedrooms and bathrooms of the homes. In

rural areas garbage from the process is often taken outside into the yard and burn in piles to in an effort to destroy any of the evidence.

During a recent raid, Deputies found a defendant dumping ether down the toilet trying to destroy evidence, while others ran from the residence trying to avoid police, leaving their children behind.

Many children live hand-in-hand with chemicals or toxic substances that are used in the production of meth. These chemicals are known to cause serious physical injuries.

Short-term, high concentration exposure to some of these chemicals can cause severe health problems including lung damage and burns.

At another raid, law enforcement personnel found four defendants in the middle of the cooking process. Another occupant of the residence was an 11-year-old boy who was wheelchair bound with cerebral palsy. This child had numerous exposures to the production of meth. Subsequently, the boy was turned over to the Department of Social Services.

Every meth "recipe" starts with over-the-counter medications that include pseudoephedrine or ephedrine in their contents. The pills are crushed and mixed with other chemicals in the process of cooking meth. Most of the chemicals associated with producing meth can be grouped into three categories: Solvents; Metals and Salts; and Strong acids or Bases. Chemicals such as Starter Fluid; Muriatic Acid; Drain Cleaners; Lithium batteries; Iodine, and Acetone to name a few, are commonly found in varying quantities.

The cooking process causes chemicals and methamphetamine to be deposited on surfaces and household belongings. Production also releases toxic gasses, including, but not limited to, hydrochloric acid, hydrogen chloride, phosphine, and ammonia. These gasses are released during the cooking process and can be deadly.

Meth cooking produces solid and liquid wastes that can contaminate a building. It is not only possible, but likely that residual contaminates are left on surfaces and in absorbent materials, such as carpets, furniture, sinks, drains and ventilation systems. The solid waste product, referred to as "sludge" and other remnants of the cooking process are routinely dumped down sinks, drains and toilets, or discarded outside along roads or in yards, left to leach into the soil and ground water, leaving behind a virtual toxic dump of chemicals.

Exposure to these meth lab chemicals and waste products can result in minor or serious life threatening medical problems, depending on the circumstances of the exposure.

The eradication of clandestine labs exacts a serious burden on local law enforcement and government budgets and resources. In preparation for taking down a suspected meth lab, local law enforcement must spend hundreds of man-hours in surveillance, background and undercover work. Briefings of law enforcement, EMS, and HAZMAT personnel must take place to insure the safety of all involved. OSHA and PESH required safety gear must be obtained and deployed, requiring expensive equipment and extensive training.

Beginning in 1999 when the first lab of this type was found in Tioga County, investigators began to educate themselves on the problem that now exists. Researching law enforcement publications and speaking with agencies outside our area. This was only a step into the education that was to follow. Credited schools, forums and local training on meth labs followed to help in getting a grasp of what the problem was.

Today the Sheriff's Office has one investigator that is devoted full-time to the investigations of meth labs with two others educating the public, holding classes for groups such as Department of Social Services, Mental and Public Health, and numerous other clubs and organizations. This of course puts a strain on manpower and limits the amount of time that can be devoted to other criminal activity.

In some cases, Tioga County has enlisted the help of the DEA in clearing the lab site of chemicals and contaminates. Unfortunately, the DEA only has two fully trained clandestine lab teams to cover New York, making it extremely difficult to acquire their assistance. In most cases, Tioga County enlists the assistance of the New York State Police and county HAZMAT team to perform an initial assessment of the lab site and perform evidence collection and removal of lab related debris, such as chemicals and containers. Further cleanup operations and expenses usually fall on the plate of local government, at substantial expense.

To further complicate the problem is the growing trend of mobile meth labs. Known as "box labs," producers carry their cooking operations in luggage size containers, which allow them to cook their meth in cars, motel rooms, or in isolated, wooded areas in an effort to avoid detection. This methodology creates a greater opportunity for producers to dump the "sludge" and toxic waste in areas which would increase the changes of exposure, or environmental contamination.

Clandestine methamphetamine labs present unique and very serious problems for both law enforcement and public health officials. Unlike other illicit drug activity, the impact of this drug can be far reaching, having negative effects on those who produce it or use it, to those who are unknowingly exposed to a contaminated residence, waterway, or debris. It has a negative impact on the financial resources of public safety and public health agencies, and will certainly have a negative impact on the environment.

The creation of H.R. 798 will extend help to local governments in the fight against the manufacture and cleanup of meth. The environment impact of the production of meth may not be known for years to come. The residual effects of the leftover chemicals pose a hazard to home owners and tenants were labs were once located. Having standards and guidelines as outlined, will help establish a protocol that in the future will help in the cleanup of known meth sites and protect the public.

BIOGRAPHY FOR GARY W. HOWARD

PERSONAL

Born and raised in Binghamton, NY; Age: 50; Married with two children and two grandchildren; 1972 Graduate of Binghamton High School

MILITARY

Served in the U.S. Army from 9/73 through 11/76

- Served as a Military Police Officer with the 287th MP Company, Berlin, German (Check Point Charlie)

Received an Honorable Discharge in 1976

PROFESSIONAL EXPERIENCE

Elected Sheriff of Tioga County in 1/04

- 126 employees
- Law Enforcement
- Correctional Facility
- E–911 Center
- $5 Million Budget

Promoted to Senior Investigator in 8/94

Promoted to Criminal Investigator—3/85 to 8/94

Promoted to Road Patrol Sergeant—1982 to 3/85

Promoted to Road Patrol Officer—1980 to 1982

Hired as a Corrections Officer from 9/77 to 1/80.

PROFESSIONAL TRAINING

National Law Enforcement Institute School for Advanced Investigations

U.S. Department of Justice Drug Enforcement Administration—Drug Enforcement School

NYS Division of Criminal Justice Services—Course in Supervisory Level Drug Enforcement

"Col. Henry F. Williams" Homicide Course

U.S. Army Military Police School

NYS Municipal Police Training Council, Instructors School

FBI Anti-Sniper and Survival Training Course

FBI Advanced Latent Fingerprint Techniques Course

NYS Bureau of Municipal Police—Basic Police School

NYS Bureau of Municipal Police—Course in Police Supervision

NYS Bureau of Municipal Police—Criminal Investigations Course

University of Delaware course in Contemporary Homicide investigations

NYS Fire Academy—Cause and Origin Determination Course

NYS Commission of Corrections—Basic Corrections Officers School

National Underwater Instructors Association—SCUBA and Skin Diving School

ADDITIONAL TRAINING & SEMINAR/CONFERENCES

Professional Conferences Attended:

National Sheriff's Institute—Executive Level Management
NYS Sheriff's Association Road Patrol and Investigative Leaders Conference
NYS Public Agency Training Council Conference
Conference on Accountability-Commitment—A New Model for Police Management
Leadership Tioga Program

NOTABLE ASSIGNMENTS & POSITIONS

NYS Homeland Security Office "Point of Contact" for Tioga County
Certified Police Instructor
Past-President of the Tioga County Law Enforcement Association
Past Member of the Tioga County HazMat Team
Past Member of the Tioga County Fire Investigation Team

Chairman BOEHLERT. How is that for an expert witness? One second remaining in his time. Thank you very much.

Dr. Bell.

STATEMENT OF DR. ROBERT R. BELL, PH.D., PRESIDENT, TENNESSEE TECHNOLOGICAL UNIVERSITY

Dr. BELL. Thank you, Mr. Chairman, and Ranking Member Gordon.

Mr. Chairman, I have a prepared statement, which I would request be entered into the record.

Chairman BOEHLERT. Without objection, so ordered.

All full statements are entered into the record for the benefit of our colleagues, who are not here. Incidentally, this is quite good attendance, because of the interest in the subject.

Dr. BELL. Thank you.

Good morning, Members of the Committee, and especially Congressman Davis, who is an alumnus of Tennessee Tech University. It is an honor to be invited to testify before you today regarding H.R. 798. My name is Bob Bell, and I serve as President of Tennessee Technological University, the state's only technological university, which is known for a strong reputation in engineering and sciences.

The area Tennessee Tech serves in our state is predominately rural and has been dramatically impacted by the meth problem. While the leadership of Tennessee has been deeply involved in trying to solve this problem, we need the focus this committee provides on a national level. It is reassuring that you understand how explosive this problem is and how much this is a threat to our way of life. We are particularly fortunate in Cookeville, in our area, to be represented by Congressman Gordon, who has made the fight against meth a top priority for his public service.

Numbers do not fully illustrate the extent of the problem, particularly in rural Tennessee. They do not describe the human element. But here are just some of the facts associated with this challenge. The labs that are used to make meth are often portable and clandestine, as you have heard, so they can be easily created and hidden in rural areas. Labs are found virtually every day within many counties in the State of Tennessee. A full 75 percent of the meth labs seized in the southeast are in Tennessee. In 2004, there

were 1,259 lab incidents in Tennessee, the third highest in the Nation. The Cumberland Plateau Tennessee Tech serves is now recognized as the richest source of meth in the state. Last year, more than 700 children were taken into State custody because of meth arrests amounting to a cost of over $4 million to the state.

Last year, the Tennessee Governor established a task force on meth abuse. 1/5 of the members were Tennessee Tech alumni. As a result of that group's finding, he has presented a comprehensive bill addressing this issue. Among the recommendations are limitations on the sale of cold and sinus products containing pseudoephedrine. That measure alone previously enacted in our home community of Cookeville, Tennessee, has already slowed the manufacture of meth, although it can not address the importation of the drug.

Our region has also benefited from the efforts of Representatives Gordon and Davis who assist local meth investigations and who started a public education campaign with federal grants.

H.R. 798 provides authorization for new research and studies to be funded by federal agencies, such as EPA and NIST. In our view, universities, such as Tennessee Tech, have an important role to play in supporting and carrying out that research. In the time since the meth problem became apparent in Tennessee, our faculty members have been eager to join the battle in a meaningful way. Research and service conducted so far include the following.

Using street methods, Tennessee Tech chemistry faculty members have demonstrated that pseudoephedrine can be extracted from most combination products, such as cold medicines that combine the substance with other drugs, with a 50 to 70 percent extraction ratio. To aid law enforcement and free warrant environments, chemistry professors have also conducted preliminary research on quick detection kits that were mentioned earlier. A Tennessee Tech professor is also gathering psychological data on children who have been removed from homes where meth was abused or cooked to test whether exposure to meth can be linked to cognitive problems.

In Tennessee Tech's College of Business Administration, a meth education tool kit has been developed with video interviews featuring dozens of front-line meth specialists. This CD will be distributed to law enforcement and emergency service personnel, schools, property owners, and others free of charge.

Much more can be done, though, and we suggest the following as potential research areas.

In manufacturing process research, continue the work to demonstrate extraction efficiencies. We propose that cooking individual components needs to be done to better understand the product and the byproducts associated with this process, and we need to examine the methods for chemical bonding that do not allow product decomposition.

In the chemistry of detection, we propose new standards at the national level for detection by researching the external environment where vapors are vented and outside the home in a car or other facility being used as a mobile lab.

A quick detection kit will help generate turnaround times less than one day on crime scene data simplifying the issuance of war-

rants. Long-term research should focus on mechanisms that quickly detect the presence of hazardous chemicals in a rental home, a motel room, a college residence hall much the same way that a smoke alarm detects the potential for fire.

A technique called "lab fingerprinting," the system of distinguishing among individual lots or batches of meth would allow law enforcement to tie a crime scene involving meth abuse to the original manufacturer of the drug. No two batches of meth are identical, thus, they can be viewed with the same integrity as a human fingerprint with the right research.

In remediation, we need to address more efficient methods for identifying and containing lab products and byproducts with a rapid environmental kit. We simply don't know how clean is clean.

Combining biology and psychology. We must better understand the physical and behavioral effects of a lab environment on victims of meth, particularly children, in order to devise more appropriate methods of faster, more complete rehabilitation.

In education and science, we can expedite the spread of curricular initiatives and research findings in online clearinghouses addressing a glaring need for a more central source of information.

Mr. Chairman, it is not a university's place to go out into the streets to arrest criminals or to remove children from their homes when the environment is unsafe or to treat the addiction. It is a university's place to train the professionals who take on difficult jobs on the front line of this battle. It is a university's place to conduct the research that can provide the tools that these professionals need.

The legislation that is the subject of today's hearing takes the next logical steps in one of the most perplexing elements of the meth problem: detection and clean up of lab sites.

I applaud the Committee's leadership in creating this bill and urge its prompt adoption, and I thank you for your time and for this opportunity to take part in this hearing. I will be pleased to answer questions.

[The prepared statement of Dr. Bell follows:]

PREPARED STATEMENT OF ROBERT R. BELL

INTRODUCTION

Tennessee Tech is the state's only technological university, with a strong reputation in engineering and the sciences. A comprehensive university serving over 9,000 students, TTU retains a strong commitment to excellence in undergraduate education, with majors in engineering, business administration, education, the arts and sciences, nursing, agriculture, and human ecology. We also offer a wide range of graduate programs, including doctoral degrees in many fields of engineering, environmental sciences, and "exceptional learning" in education. TTU hosts three accomplished state Centers of Excellence in Energy Systems Research, Water Quality, and Manufacturing Research. Last year, Tennessee Tech was listed by *U.S. News and World Report* as one of only 11 mid-sized universities in the "Best in the South" category and in the top tier of the "Best Public and Private Colleges and Universities" in the South. TTU is a member of the American Association of State Colleges and Universities.

While TTU is a public university serving students from all over our state, many other states, and many foreign nations, we retain a special mission-based commitment to serve the Upper Cumberland Region of Tennessee. The Upper Cumberland Region, containing roughly 40 counties, ranges from just East of Nashville to just West of Knoxville, and from the Kentucky border to just north of Chattanooga. The region TTU serves is predominantly rural and has been dramatically impacted by the meth problem.

SIGNIFICANCE OF PROBLEM/RISE IN THE NUMBER OF USERS AND LABS

Meth was first introduced as an illicit drug in Tennessee in 1978. A Tennessee native, who had been imprisoned in California, brought the knowledge and production methods back to his home after he was released. Unfortunately, he also set up a "school" to teach individuals how to "cook" meth for a fee.

District Attorney General Bill Gibson, a TTU alumnus, reported that the Upper Cumberland Region began seeing the impact of meth in the early 1990s with several violent incidents that were difficult to explain. The consensus of the medical community and law enforcement is that meth is the most addictive and dangerous drug seen in the Upper Cumberland area.

A homemade poisonous cousin of pharmaceutically based amphetamine or speed, meth has long been the dominant drug problem in California. It is an evil blend of common household and farming products including anhydrous ammonia, acetone, antifreeze, and the active ingredients in some cold medicines, ephedrine and pseudoephedrine. It has one of the highest addiction rates of all illegal drugs, including crack cocaine, and one of the lowest recovery rates, about five percent.

Until the past decade, meth was a distant problem. It ravaged Pacific and Northwestern states for a long time and more recently infected the Midwest. After moving into Middle Tennessee, in the past 10 years in particular, it has flourished in small labs in rural communities where detection is difficult. Today, according to the U.S. Drug Enforcement Agency, a full 75 percent of all methamphetamine labs seized in the Southeast are in Tennessee, growing from 135 labs in 1999 to 499 labs in 2003. Last year, according to National Clandestine Laboratory Database numbers, there were 1,259 lab incidents in Tennessee, third highest in the Nation. The National Drug Intelligence Center considers the Cumberland Plateau the richest source of methamphetamine in the state.

Meth presents a unique danger to regions like Middle Tennessee. The laboratories used to make the drug are often portable and/or clandestine, so they are easily created. According to the Tennessee Governor's Task Force on Methamphetamine Abuse, labs are found virtually every day within every county in Tennessee. That makes this deadly drug as available in the farthest reaches of rural America as it is in the big city streets.

Geographically, Tennessee is unique because it is bordered by eight other states. The interstate and State highway systems crisscross Tennessee's four major cities and traverse each of its borders. These highways, according to the Koch Crime Institute, carry a very large volume of traffic and are a primary means of moving drugs to and through Tennessee. As a result, the drug situations in the neighboring states have an impact on the drug situation in Tennessee.

The availability and demand for meth continues to increase throughout Tennessee. While much of the meth consumed in the state is transported from Mexico and the Southwest border area, clandestine meth labs can be found everywhere in Tennessee and are encountered daily by law enforcement. These facts are a stark contrast to the problem of a few years ago. The labs discovered in Tennessee are generally characterized as small and unsophisticated. These clandestine meth labs pose a significant threat because lab operators are frequently armed and substantially involved in the drug's distribution.

Dozens of TTU alumni, as well as faculty members, are on the front lines in the battle against this deadly drug. They are professionals in law enforcement, the judicial system, social and medical services, state government and education. In the past two years, these men and women have rallied in a concerted effort to wipe out the worst drug threat to ever face our region.

PROBLEM SCOPE: HOW IT HAS AFFECTED TENNESSEE AND THE UPPER CUMBERLAND

Currently, Tennessee is third in the Nation in meth lab-related incidents. Meth lab arrests have more than tripled since 1999. It is estimated that more than 700 children will be taken into State custody in 2005, at a cost of over $4 million to the state. The production process leaves behind five pounds of toxic waste product for every one pound of meth. Removal and handling of evidence and hazardous residue can cost between $5,000 and $20,000 per site, according to the 13th Judicial District Drug Task Force. Restoration of the site to safe, habitable conditions can cost additional tens of thousands of dollars. Businesses suffer from escalated costs of health coverage, lost time at work, workplace injuries, and theft. And the meth users and their families suffer dramatic, even life-threatening health problems associated with this substance abuse.

Dr. Sullivan Smith, the county medical examiner and another TTU alumnus, described meth as the most dangerous drug he has dealt with in his career and claims

it is responsible for the majority of violent crime in Cookeville in the past three or four years. Dr. Smith, who is DEA-certified to enter and seize a meth lab, expresses concern for the children meth affects. These labs, besides being toxic, are places where children are growing up in the midst of violence, weapons, and prostitution.

Meth also has a profound effect on our school systems. Johnny Cordell, Upper Cumberland Representative to the Tennessee Organization of School Superintendents, noted that in his county (Sequatchie County, population approximately 13,000), law enforcement locates and destroys one meth lab each week. Mike Prock, Chairperson of the Upper Cumberland School Directors' Study Council, emphasized how unrealistic it is to expect children to come to school ready to learn when their family unit is being destroyed by meth addiction. Lana Sievers, Commissioner of the Tennessee Department of Education, noted that meth is not an isolated problem. Almost 10 percent of Tennessee students in the K–12 system report having tried meth. This drug is being used and produced in their homes, and it is making its way into the schools.

In addition to the impact on school systems, meth abuse has terrible consequences for family members, especially young children. Children taken from active clandestine meth labs are stripped of all possessions. They are normally taken to an emergency room at a hospital, where they are tested, frequently by needle. They are separated from adult family members, sometimes from other siblings, and cannot even keep a favorite teddy bear for comfort. TTU alumnus and child protective services case manager Betsy Dunn considers meth the worst form of child endangerment she has ever seen. Children are neglected to the point where they are often the primary caretakers of their siblings and their parents as well.

Meth also has profound effects on State and local governments and support resources. Often, smaller counties in Tennessee simply do not have the resources to address the meth problem and must call for outside assistance. In a typical raid on a clandestine meth lab in a rural county where an arrest is made, at least four officers are needed. Current guidelines stipulate that a "partner" system must be used, with a minimum of two officers in the residence/lab, one as a lead and one as a backup. Because of time constraints associated with potential exposures to the toxic environment, regulations also stipulate that a "rotation" team of two additional officers be outside the residence, ready to rescue those inside and ready to rotate after the first team reaches a specified time limit in the facility. Emergency personnel and/or fire personnel are also required on scene in case of an accident. A typical cleanup operation may take from eight to 15 hours. During this time, local county resources are stretched to a breaking point, and County Sheriffs often must call for support from other agencies. County medical providers and facilities are also often overwhelmed by spillovers from clandestine laboratory raids.

AGENCIES THAT CURRENTLY RESPOND TO RESIDENTIAL METH LABS/ HOW LABS ARE CURRENTLY ASSESSED, CLEANED AND REMEDIATED/STATE LAWS AND REGULATIONS THAT GUIDE THIS PROCESS

Local law enforcement agencies are often the first notified about a suspected clandestine meth lab. Typically, when a lab is identified, a team of responders is assembled. First on the scene may be local law enforcement agencies (city police, County Sheriff's office). Only individuals who are "Clandestine Lab Certified" may enter the residence or clandestine lab. They may be supplemented by agents from the Drug Task Force, Drug Enforcement Agency, or the Tennessee Bureau of Investigation. Emergency medical services personnel are also called for stand-by support. Often, other support is provided by local fire department personnel, the Tennessee Department of Children's Services, and other service providers such as the Upper Cumberland Community Services Agency. Certified hazardous materials contractors are used to gather, transport, and dispose of materials in the meth lab. The Office of the District Attorney and, frequently, the Public Defender's Office are also closely involved. As the site is catalogued and remediation is initiated, officials from the regional public health offices and environmental protection offices are also often involved.

Protocols that guide assessment and remediation of clandestine methamphetamine labs are found in Tennessee Code Annotated, Title 68, as amended by Public Acts 2004, Chapter 855, "Inspection, Testing, and Quarantine of Property Where Methamphetamine was Manufactured," and by "Emergency Rules of the Department of Environment and Conservation-Standards for Testing and Cleaning Clandestine Drug Manufacturing Sites" (Chapter 1200, 1–19). Also appropriate is Tennessee Department of Environment and Conservation Interim Guidance, February 22, 2005, "Reasonable, Appropriate, Protective Cleanup Responses and Documenta-

tion Guidance for Properties Quarantined due to Clandestine Methamphetamine Laboratory (CML) Activities Pursuant to TCA 68–212 Part 5."

LIMITATIONS OF ASSESSMENT/REMEDIATION STRATEGIES

While current assessment/remediation strategies are clearly more refined than those in place just a few years ago, much remains to be done. Entrance guidelines are still loose. Individuals entering a clandestine meth lab are in effect entering a working hazardous materials/chemistry laboratory, but one where few traditional safety measures have been in place. There are no fume hoods or air circulation mechanisms. There has been no routine cleanup protocol in place for spills. While the presence of meth is presumed, uncertainty remains about the levels and types of other hazardous gases, fluids, and solids in the lab environment. Science related to byproducts and the toxicity of the environment is still unclear.

Unfortunately, a baseline definition of what "clean" is, in terms of remediating labs, is not available. Research at the university level is needed to develop that definition. Fundamental research describing what "clean" really is must happen now.

A great deal of work remains to be done on the effects of exposure to the clandestine laboratory in children, both from a medical and a psycho-social context. Research and work must be done to develop more effective treatment/rehabilitation programs for meth users. Little evidence exists today on the success of programs specifically addressing the impacts of meth on the body and brain, and what evidence does exist gives little hope of remediation with current treatments. House Bill 798 will help take major steps in the right direction toward this effort. Universities can play a major role as strategic partners in developing new detection and remediation strategies, helping develop standard reference materials and validation protocols. Higher education can also play a role in identifying adverse biological risks on the intervention teams, as well as studying the biological/medical and psycho-social effects on children and others in the clandestine meth labs.

COLLABORATIONS WITH LOCAL LAW ENFORCEMENT AND THE MEDICAL COMMUNITY

Tennessee Tech has collaborated with a number of state and regional agencies for some time. Working with the Office of the Governor and the 13th Judicial District Drug Task Force, TTU faculty and staff participated in a wide range of activities addressing the meth problem; the university has been identified by the Drug Task Force as a "central resource" for the region.

TTU units involved in these efforts include the Department of Chemistry; Center for Structural Chemistry; the Center for Management, Utilization, and Protection of Water Resources; the doctoral program in environmental sciences; the Business Media Center; and the College of Education. Key individuals involved include Dr. Scott Northrup, Chair, Department of Chemistry; Dr. Jeff Boles, Director, Environmental Sciences Ph.D. program; Dr. Eugene Kline, Professor of Chemistry; Dr. Martha Wells, Water Center Professor; Dr. Barbara Jackson, Professor of Chemistry; Dr. Comfort Asanbe, Professor of Curriculum and Instruction; and Mr. Kevin Liska, Director, Business Media Center. The university is eager to offer more.

TTU research/service agenda can be generally categorized into four areas: Manufacturing Process Research, Education and Information, Detection, and Remediation, described below.

Manufacturing Process Research: Faculty in the TTU Chemistry Department, the doctoral program in environmental sciences, and the Water Center have recently been involved in a project sponsored by the Governor's Office and the 13th Judicial District Drug Task Force. Using "street" methods and solvents for extraction certified by the Tennessee Bureau of Investigation, these studies demonstrated that 50 to 70 percent extraction efficiencies for pseudoephedrine can be achieved from most combination products (such as cold medicines that combine pseudoephedrine with other drugs) typically associated as viable sources for the compound that is turned into meth. TTU partnered with Dr. Sullivan Smith on these experiments. Charlotte Burks, our state senator and a member of the Drug Task Force and Governor's Task Force on Methamphetamine Abuse, credited our research in this area for helping speed the development of the Governor's new bill.

Education and Information: Several of TTU's social service areas, including the "Make a Difference" project in the College of Education, regularly see the collateral effects of meth abuse on children. TTU enjoys a very close partnership with school systems throughout the Upper Cumberland Region of Tennessee and hosts the regional P–16 Council. Faculty and staff from the Colleges of Education, Arts and Sciences, Engineering and Business Administration have all collaborated to help develop educational programs addressing meth abuse. Some of these projects have in-

volved curricular initiatives, with the intent of "embedding" anti-meth messages in the elementary school curriculum. Early work was done in Cumberland County, Tennessee, and is now being expanded into Putnam and Jackson Counties.

Business Media Center Director Kevin Liska, in collaboration with the Putnam County Health Department and the 13th Judicial Drug Task Force, created a Meth Education Tool Kit to be distributed to law enforcement, schools, emergency services personnel, property owners and others—all potential victims of meth manufacture and abuse. In the form of a CD–ROM, the kit includes interviews with front-line meth specialists from the Tennessee National Guard, the Tennessee Departments of Children's Services and Health, the U.S. EPA and Drug Enforcement Agency, and local social services and medical agencies. The CD is organized into 22 community target markets presenting video on meth facts, medical impact, testimonials, and financial impact—all directed toward four age categories.

Detection: TTU Chemistry Professor Jeff Boles consults with the Committee on bills related to meth and has been studying the meth problem from a number of angles over the long term. Through the TTU Center for Structural Chemistry, which he administers, he proposes a two-part attack, the first of which is detection in a pre-warrant situation. While early work has been done on a quick-detection kit, collaboration with the NIST is necessary to identify existing standards of detection and benchmark the actions by other states in order to develop new standards at the national level. The center proposes researching the external environment where vapors are vented outside a home or car being used as a mobile lab. Estimates are that effective lab detection technologies will someday help generate a turnaround time of one day on crime scene data that would simplify the issuance of warrants.

Remediation: The second prong in Professor Boles' research is environmental cleanup. Toxic byproducts leave meth sites highly contaminated, from water to air to soil to the structure that housed the clandestine operation. Research is needed to make some form of remediation economically feasible. Rapid environmental analysis kits, with very short on-site cycle times, must be developed to identify hazards associated with clandestine lab environments. More efficient methods for identifying and appropriately containing lab products and byproducts must be addressed. Research must yet be done on appropriate methods and materials for "cleaning" a lab and remediating a site. Standards must be developed to address the question of "how clean is clean?" The potential for meaningful doctoral research in TTU's environmental sciences Ph.D. program, as well as similar programs nationwide, exists for exactly these topics.

RESEARCH GUIDANCE NEEDED TO ADDRESS THE ENVIRONMENTAL HAZARDS OF RESIDENTIAL METH LABS

The scope of H.R. 798 provides a mechanism for making major progress in the research and science associated with meth abuse. This is a long-term effort, and the problem will not be solved in the next year or even the year after. But colleges and universities in general, and TTU in particular, want to be involved in moving toward a solution. Listed below are some specific descriptions of how TTU is already involved and how it can help in the future, but other possibilities for significant research can be generated through H.R. 798.

Manufacturing Process Research: Significant additional work is needed to understand the process and science associated with the manufacture of meth. As mentioned previously, recent work at TTU (December 2004/January 2005) has demonstrated that high efficiencies of meth production can be achieved with over-the-counter products, using inexact "street" methods of production. This work needs to be expanded and refined. Work needs to be done to "cook" the individual components to more fully understand all of the compounds produced (product and byproducts). This will lead to a better understanding of the hazards of each individual and combination byproduct. Work should continue on decomposition research, examining methods for chemical bonding that do not allow product decomposition.

The Chemistry of Detection: Much work remains in the chemistry of detection. Current processes are slow and inefficient. Cycle times for analysis are long, in a relative sense, and present problems for efficient law enforcement. More efficient detection and diagnostic tools must be developed so that sites can be more rapidly identified and reaction times shortened. Long-term research should focus on mechanisms that quickly detect the presence of hazardous chemicals in a rental home, a motel room, or a college residence hall, much the same as a smoke alarm detects the potential for fire. Studies should continue on environmental sampling, with a focus on developing a detection mechanism for sampling air surrounding a residence.

Lab Fingerprinting: Tennessee Tech has proposed research in developing methods for "fingerprinting" illegally manufactured meth drugs synthesized in a clandestine lab contain sufficient impurities allowing such identification since these labs are generally poorly operated. No two batches or lots of meth will be identical; thus, they can be viewed with the same integrity as a human fingerprint. Such fingerprinting would allow law enforcement agencies to reach back into the manufacturing process, more clearly identifying specific products used.

Remediation: Research must continue on the processes implemented after labs are discovered. Rapid environmental analysis kits, with very short on-site cycle times, must be developed to identify hazards associated with clandestine lab environments. More efficient methods for identifying and appropriately containing lab products and byproducts must be addressed. Research must yet be done on appropriate methods and materials for "cleaning" a lab and remediating a site. Standards must be developed to address the question of "how clean is clean?"

Biology/Psychology: Significant additional work must be conducted on the biological and psychological sciences associated with meth production and abuse. Much new work on the effects of the lab environment on children must be undertaken, focusing on both the biological and psycho-social impacts of the environment. Many physicians believe that current treatment paradigms for meth abusers are highly ineffective, and much work remains to be done on appropriate methods for faster, more complete rehabilitation. In the TTU Department of Counseling and Psychology, Assistant Professor Comfort Asanbe, a licensed psychologist, gathers psychological data on children who have been removed from homes where meth was abused or cooked. Exposure to meth could be linked to cognitive problems, and the environment is hazardous.

Education and Science: Work also needs to continue on the interaction of science and education to appropriately demonstrate the science associated with meth to different age groups in order to clearly identify the medical and social toxicity of the drug. While this is not the focus of H.R. 798, it clearly is a related, vital component of addressing the problem and eventually eliminating many of the hazards associated with the clandestine production of the drug. There is also a need for more public education and community awareness and training modules for delivery on the Internet, providing more scientific content.

The ripple effect of a drug like meth makes it dangerous; it is not simply a matter of one person's addiction, it is the peripheral effects that add up to a significant threat to society. The motivation for attacking the problem head-on is strong. The effects of meth in the local communities surround Tennessee Tech, a regional university located in a rural area. The labs affect and contaminate the environment. Production and use have a devastating effect on the children TTU hopes to eventually serve.

As indicated earlier, alumni of institutions just like Tennessee Tech are leading this fight. The war can only be won if it is attacked on all sides by all constituents. Smaller universities play a critical role; they can address this lethal epidemic. They provide the expertise in qualified and interested faculty members who want to do this type of research. They have an inherent motive to address the quality of students served in local communities.

RECOMMENDATIONS/RESPONSE TO H.R. 798

Much more can be done, however, to address the problem, not only at home, but across the country. Because of this bill, faculty at regional universities like Tennessee Tech can make use of their expertise, engaging in the level of research required to find real solutions to the problem. In summary, Tennessee Tech faculty members propose expanding research in the following areas:

- **In manufacturing process research,** continuing our work in demonstrating extraction efficiencies, we propose "cooking" the individual components to more fully understand both product and byproduct, and we need to examine methods for chemical bonding that do not allow product decomposition.
- **In the chemistry of detection,** we propose developing new standards at the national level for detection by researching the external environment where vapors are vented outside a home or car being used as a mobile lab. A quick-detection kit will help generate a turnaround time of one day on crime scene data, simplifying the issuance of warrants. Long-term research should focus on mechanisms that quickly detect the presence of hazardous chemicals in a

rental home, a motel room, or a college residence hall, much the same as a smoke alarm detects the potential for fire.

- **A technique called lab fingerprinting—**a system of distinguishing among individual lots or batches of meth—would allow law enforcement to tie a crime involving meth abuse to the original manufacturer of the drug. No two batches of meth are identical; thus, they can be viewed with the same integrity as a human fingerprint.
- **In remediation,** we can address more efficient methods for identifying and containing lab products and byproducts with a rapid environmental analysis kit, and we simply must address the question of "how clean is clean?" in remediation efforts.
- **Combining biology with psychology,** we must better understand the physical and behavioral effects of a lab environment on victims of meth, particularly children, in order to devise more appropriate methods for faster, more complete rehabilitation.
- **In education and science,** we can expedite the spread of curricular initiatives and research findings in an online clearinghouse, thus addressing a glaring need for such a central source of information.

It is not a university's place to go out into the streets to arrest criminals, or to remove children from their homes when the environment is unsafe, or to treat an abuser's addiction. It is a university's place to train the professionals who take on the difficult jobs on the front line of the meth battle. It is a university's place to conduct research that can provide the tools these professionals need to make a difference.

With the appropriate funding for equipment and other resources, colleges and universities like Tennessee Tech stand ready to do their part in implementing H.R. 798, and the results of our research can be applied wherever meth is a problem. The *Methamphetamine Remediation Research Act of 2005* attacks the problem from arguably the most important angle. It takes the next logical step in one of the most perplexing and complicated elements of the meth problem—detection and cleanup of meth manufacturing sites. The Committee's leadership in creating this bill is to be applauded, and TTU offers its wholehearted support in every level of this research. TTU can be a full partner in the bill's proposed research program on detection, remediation, and residual health effects on children.

ATTACHMENT

GOVERNOR PHIL BREDESEN'S "METH FREE TENNESSEE" BILL

On February 24, 2005, Governor Phil Bredesen outlined the major components of comprehensive legislation to address methamphetamine manufacturing and abuse in Tennessee, and took another step toward raising public awareness by proclaiming March as "Meth-Free Tennessee Month."

Major provisions of the bill (attached as an appendix to this testimony) include:

- Limitations on the sale of cold and sinus products containing the decongestant pseudoephedrine, the vital ingredient in the manufacture of methamphetamine. While many pseudoephedrine products will go behind the counter in licensed pharmacies, liquids and gel caps will be exempt from restrictions because they currently are not deemed viable in the meth manufacturing process.
- Closure of the so-called "personal-use loophole" in criminal law, which allows meth cooks to secure lighter penalties by claiming they manufactured the drug only for personal use.
- Requirement for health professionals to report meth lab-related burns and injuries to local law enforcement, similar to the existing requirement to report gunshot and knife wounds.
- Creation of an online registry within the Department of Environment and Conservation listing properties quarantined by law enforcement due to meth-lab contamination. A separate registry will be created within the Tennessee Bureau of Investigation listing the names and offenses of convicted meth cooks.

Separate from the legislation, the Governor's FY05–06 budget includes nearly $7 million to attack the meth problem in Tennessee. Among other items, the budget includes:

- $2.4 million for increased criminal penalties for meth-related crimes, including closure of the personal-use loophole.
- $1.7 million to launch a drug court pilot project endorsed by the White House Office of National Drug Control Policy to test the effectiveness of a combination of treatment and light incarceration.
- $1.5 million to launch a statewide education and public awareness campaign.
- $600,000 to provide meth-lab response training to law enforcement and other first responders.

SUMMARY OF SB2318, HB2334

SECTION 1: Designates legislation as the "Meth-Free Tennessee Act of 2005."

SECTION 2(a): Requires that any product containing an "immediate methamphetamine precursor" must be sold only by licensed pharmacies. ("Immediate methamphetamine precursor is defined by Section 9.)

SECTION 2(b): Exempts products that cannot be used to manufacture methamphetamine. Requires the Department of Health, in consultation with the TBI, to determine whether a product can be used to manufacture methamphetamine. Requires the Department of Health to maintain a list of exempt products. The initial list shall include liquid preparations and gel capsules.

SECTION 2(c): Prohibits the sale of more than three packages of a non-exempt product or nine grams of pseudoephedrine to the same person over a 30-day period, unless that person has a physician's prescription.

SECTION 2(d): Mandates that only a pharmacist, or pharmacy technician or pharmacy intern working under the supervision of a pharmacist, can sell a non-exempt product. Requires purchaser to present ID. Requires pharmacies to maintain an electronic record of the sale in the form of a pharmacist prescription order or a written log.

SECTION 2(e): Requires that non-exempt products must be placed behind the pharmacy counter.

SECTION 2(f): Makes it a Class A misdemeanor, punishable by fine only, for a pharmacy owner or operator to violate this section. Requires violations to be reported to the Board of Pharmacy for review and appropriate action.

SECTION 3: Requires the Department of Health, in coordination with the Department of Education, to educate and raise public awareness of the dangers of methamphetamine manufacturing and abuse and to direct addicts to treatment resources.

SECTION 4: Requires health professionals to report methamphetamine laboratory-related burns and injuries to local law enforcement, similar to the existing requirement to report gun and knife wounds.

SECTION 5. Requires the Department of Environment and Conservation to maintain lists of individuals and businesses qualified to test and clean properties contaminated by methamphetamine manufacturing.

SECTION 6. Clarifies that the purpose of the existing provision to quarantine properties in which methamphetamine manufacturing has occurred is to prevent persons from being exposed to the hazards associated with manufacturing.

SECTION 7. Makes it a Class B misdemeanor to offer for rent or to live in property that has been quarantined, or to remove signs or notices of quarantine.

SECTION 8(a)-(b). Requires law enforcement to inform the Department of Environment and Conservation of a quarantine within seven days of issuing the quarantine order. Requires the Department to maintain an online registry listing properties that have been quarantined for at least 60 days, and to remove properties after the quarantine is lifted.

SECTION 9. Defines "immediate methamphetamine precursor" as ephedrine, pseudoephedrine or phenylpropanolamine or any products containing detectable quantities of those substances.

SECTION 10(a)-(f). Makes it a Class B felony for any person to initiate a process intended to result in the manufacture of methamphetamine.

SECTION 11(a)-(f). Makes it a Class D felony for any person to promote the manufacture of methamphetamine. Defines promoting as: Purchasing or possessing more than nine grams of an immediate methamphetamine precursor with intent to manufacture; delivering more than nine grams to another person who intends to manufacture; or selling or acquiring any substance or apparatus intended for use in the manufacturing process.

SECTION 12. Deletes TCA 39–17–434, which addresses possession of substances with intent to manufacture or with intent to convey to another person (now dealt with in Sections 10 and 11).

SECTION 13(a)-(f). Establishes within the TBI a registry of persons convicted of manufacturing methamphetamine. Requires court clerks, beginning September 1, to forward copies of judgments against persons convicted of manufacturing methamphetamine. Requires the Department of Correction to forward a list of those currently incarcerated for manufacturing methamphetamine.

SECTION 14. Makes it a Class A misdemeanor to attempt to use fraudulent means to pass a drug test.

SECTION 15. Removes the "personal use loophole" from current law. (Under existing law, methamphetamine cooks can secure a lighter criminal penalty by claiming they were manufacturing only for personal use.)

SECTION 16. Clarifies that if any provision of the act is held invalid by a court, then the other provisions will remain in force.

SECTION 17. States that the act shall take effect immediately, the public welfare requiring it.

Filed for intro on 02/17/2005

HOUSE BILL 2334

By McMillan

SENATE BILL 2318

By Kyle

AN ACT to amend Tennessee Code Annotated, Titles 39 and 68, relative to methamphetamine.

WHEREAS, the Tennessee General Assembly recognizes that the clandestine manufacture of the illegal drug methamphetamine is a clear and present danger to the health and well being of the State of Tennessee; and

WHEREAS, the United States Drug Enforcement Administration ("DEA") has found the availability and demand for methamphetamine continues to increase throughout Tennessee; and

WHEREAS, methamphetamine is commonly manufactured in clandestine laboratories that can be found across in Tennessee and are encountered daily by federal, State and local law enforcement; and

WHEREAS, the DEA estimates Tennessee now accounts for 75 percent of the methamphetamine lab seizures in the Southeast; and

WHEREAS, these clandestine methamphetamine labs pose a significant threat because lab operators are frequently armed and are often directly involved in the drug's distribution; and

WHEREAS, the problem of methamphetamine manufacturing and abuse is particularly destructive to the children in our state and more than 700 children are entering state custody each year as a result of methamphetamine lab seizures and related incidents; and

WHEREAS, clandestine methamphetamine labs also pose a potentially lethal environmental hazard due to the unregulated and illegal use of harmful chemicals involved in the production of methamphetamine; and

WHEREAS, the hazardous materials generated during the clandestine manufacture of methamphetamine impose a significant burden on property owners; and

WHEREAS, there is anticipation of an increase in methamphetamine use in Tennessee as the drug gains popularity over other abused drugs; and

WHEREAS, this Body desires to work with law enforcement, the health care industry, community agencies and other interested stakeholders to develop a comprehensive strategy including treatment and public awareness for addressing methamphetamine abuse; now, therefore,

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF TENNESSEE:

SECTION 1. This Act shall be known and may be cited as the Meth-Free Tennessee Act of 2005.

SECTION 2. Tennessee Code Annotated, Section 39–17–431, is amended by deleting the existing language in its entirety and substituting instead the following:

§ 39–17–431. (a) Except as provided in this section, any product that contains any immediate methamphetamine precursor may be dispensed only by a licensed pharmacy.

(b)(1) A product that contains any immediate methamphetamine precursor shall be exempt from the requirements of this section if the ingredients of the product are not in a form that can be used in the manufacture of methamphetamine.

(2) The department of health, in consultation with the bureau of investigation, shall determine whether a product that contains any immediate methamphetamine precursor is not in a form that can be used in the manufacture of methamphetamine.

In making such a determination, the department and the bureau shall develop procedures that consider, among other factors,

(A) ease with which the product can be converted to methamphetamine, including the presence or absence of a "molecular lock" completely preventing the product's use in methamphetamine manufacture;

(B) ease with which pseudoephedrine can be extracted from the substance and whether it forms a salt, emulsion, or other form:

(C) any other pertinent data that can be used to determine the risk of the product being viable in the illegal manufacture of methamphetamine.

(3) The department of health shall maintain a public list of such exempted products. Any person may request that a product be included on the exemption list. Such a list shall include, but not be limited to, products in the form of gel capsules and liquid preparations that contain any immediate methamphetamine precursor. The term "gel capsule" means any soft gelatin liquid-filled capsule that contains a liquid suspension, which, in the case of pseudoephedrine, is suspended in a matrix of glycerin, polyethelyne glycol, and propylene glycol, along with other liquid substances. Regardless of the product manufacturer's labeling, a gelatin-covered solid does not constitute a "gel capsule" under this provision.

(c) A pharmacy shall not sell to the same person more than three individual packages of any non-exempt product containing any immediate methamphetamine precursor, nor shall a pharmacy sell to the same person any combination of such products containing more than nine grams of ephedrine, pseudoephedrine, or their salts, isomers, or salts of isomers, during the same 30-day period. The nine-gram limit shall apply to the total amount of base ephedrine and pseudoephedrine contained in the products, and not the overall weight of the products. The prohibition contained in this subsection shall not apply to a person who obtains the product or products pursuant to a valid prescription issued by a licensed physician, certified physician assistant, or nurse authorized pursuant to Tennessee Code Annotated, Section 63–6–204, who is rendering service under the supervision, control and responsibility of a licensed physician and who meets the requirements pursuant to Tennessee Code Annotated, Section 63–7–207(13).

(d) The pharmacist, or any pharmacy technician or pharmacy intern under the supervision of the pharmacist, shall require any person purchasing a non-exempt product that contains any immediate methamphetamine precursor to present valid government-issued identification at the point of sale. The pharmacist, pharmacy technician or pharmacy intern shall maintain an electronic record of the sale under this subsection in the form of a pharmacist prescription order as provided by Tennessee Code Annotated, Section 63–10–206(c). The electronic record shall include the name of purchaser, name and quantity of product purchased, date purchased, purchaser identification type and number (such as driver license state and number), and the identity (such as name, initials, or identification code) of the dispensing pharmacist, pharmacy technician or pharmacy intern. If a system is not able to record the identification type and number, the pharmacist, pharmacy technician or pharmacy intern shall write the identification type and number on the prescription order. The electronic record also shall be maintained in such a manner that allows for the determination of the equivalent number of packages purchased and total quantity of base ephedrine or pseudoephedrine purchased. In lieu of maintaining an electronic record, a pharmacy may maintain a written register containing the name of purchaser, name of product purchased, date purchased, number of packages purchased, total quantity of base ephedrine or pseudoephedrine purchased, purchaser identification type and number (such as driver license state and number), purchaser's signature and name or initials of the pharmacist, pharmacy technician or pharmacy intern completing the transaction. The obligation of meeting the requirements of this section rests with the pharmacist.

(e) Non-exempt products containing an immediate methamphetamine precursor shall be maintained behind the counter of the pharmacy.

(f) A violation of any provision of this section is a Class A misdemeanor, punishable by fine only. If the person in violation is a licensed pharmacy or pharmacist, such violation shall be reported to the Board of Pharmacy for review and appropriate action. If a product is dispensed in violation of subsection (a), the owner or operator of the wholesale or retail establishment dispensing such product shall be in violation of subsection (a).

SECTION 3. Tennessee Code Annotated, Section 68–24–103(b), is amended by adding the following as a new subsection (2) and redesignating the existing subsections accordingly: (2) As a component of the program described in subsection (1), the department, in coordination with the Department of Education, shall increase efforts to educate and raise public awareness of the dangers of methamphetamine manufacture and abuse, including but not limited to distribution of public information materials designed to oppose methamphetamine abuse, and shall direct persons suffering from the effects of methamphetamine abuse to proper treatment resources.

SECTION 4. Tennessee Code Annotated, Section 38–1–101(a), is amended by adding the following language after the word "violence," in the first sentence: "or resulting from exposure to a methamphetamine laboratory or a methamphetamine laboratory related fire, explosion, or chemical release,"

SECTION 5. Tennessee Code Annotated, Section 68–212–502, is amended by deleting it and substituting instead the following: The commissioner shall compile and maintain a list of certified industrial hygienists and such other persons or entities the commissioner certifies as qualified to perform the services of industrial hygienists. Such persons will test properties in which a process intended to result in the manufacture of methamphetamine has occurred, as defined by Section 10 of this act, to determine if a property is safe for human use. Such property may include, but is not limited to, leased or rented property such as a hotel or motel room, rented home or apartment, or any residential property. The commissioner shall also compile and maintain a list of persons authorized to perform cleanup of property where such a process has occurred. Such lists may be posted on the website maintained by the commissioner.

SECTION 6. Tennessee Code Annotated, Section 68–212–503, is amended by deleting subsection (a) in its entirety and substituting in its place the following language: The purpose of the quarantine provided for in this section is to prevent exposure of any person to the hazards associated with methamphetamine and the chemicals associated with the manufacture of methamphetamine.

SECTION 7. Tennessee Code Annotated, Section 68–212–503, is amended by adding the following new subsection, appropriately designated: ( ) It is prohibited for any person to inhabit quarantined property, to offer such property to the public for temporary or indefinite habitation, or to remove any signs or notices of the quarantine. Any person who willfully violates this subsection commits a Class B misdemeanor.

SECTION 8. Tennessee Code Annotated, Title 68, Chapter 212, Part 5 is amended by adding the following new section, appropriately designated:

(a) Within seven (7) days of issuing an order of quarantine, the law enforcement agency that issued the order shall transmit to the Commissioner at least the following information regarding the site: the date of the quarantine order, county, the address, the name of the owner of the site, and a brief description of the site (single family home, apartment, motel, wooded area, etc.).

(b) The department of environment and conservation shall maintain a registry of all properties reported by a law enforcement agency that have been under order of quarantine for at least sixty (60) days. The registry shall be available for public inspection at the department and shall be posted on its web site. Listed properties shall be removed from the registry when a law enforcement agency reports that the quarantine has been lifted in accordance with this part.

SECTION 9. Tennessee Code Annotated, Section 39–17–402, is amended by adding the following as a subsection (13) and renumbering the other subsections appropriately: (13) "Immediate methamphetamine precursor" means ephedrine, pseudoephedrine or phenylpropanolamine, or their salts, isomers or salts of isomers, or any drug or other product that contains a detectable quantity of ephedrine, pseudoephedrine or phenylpropanolamine, or their salts, isomers or salts of isomers.

SECTION 10. Tennessee Code Annotated, Title 39, Chapter 17, Part 4, is amended by adding the following as a new, appropriately designated section:

(a) It is an offense for a person to knowingly initiate a process intended to result in the manufacture of any amount of methamphetamine.

(b) It shall not be a defense to a violation of this subsection that the chemical reaction is not complete, that no methamphetamine was actually created, or that the process would not actually create methamphetamine if completed.

(c) For purposes of this section, "initiates" means to begin the extraction of an immediate methamphetamine precursor from a commercial product, to begin the active

modification of a commercial product for use in methamphetamine creation, or to heat or combine any substance or substances which can be used in methamphetamine creation.

(d) Expert testimony of a qualified law enforcement officer shall be admissible for the proposition that a particular process can be used to manufacture methamphetamine. For purposes of such testimony, a rebuttable presumption is created that any commercially sold product contains or contained the product that it is represented to contain on its packaging or labels.

(e) A person may not be prosecuted for a violation of this section and of manufacturing a controlled substance in violation of 39–17–417 based upon the same set of facts.

(f) A violation of this section is a Class B felony.

SECTION 11. Tennessee Code Annotated, Section 39–17–433, is amended by deleting the existing language in its entirety and substituting instead the following:

(a) It is an offense for a person to promote methamphetamine manufacture. A person promotes methamphetamine manufacture who:

(1) Sells, purchases, acquires, or delivers any chemical, drug, ingredient, or apparatus that can be used to produce methamphetamine to another person, knowing that the person intends to use the chemical, drug, ingredient, or apparatus to manufacture methamphetamine, or with reckless disregard of the person's intent;

(2) Purchases or possesses more than nine grams of an immediate methamphetamine precursor with the intent to manufacture methamphetamine or deliver the precursor to another person who they know intends to manufacture methamphetamine, or with reckless disregard of the person's intent; or

(3) Permits a person to use any structure or real property that the defendant owns or has control of, knowing that the person intends to use the structure to manufacture methamphetamine, or with reckless disregard of the person's intent.

(b) Expert testimony of a qualified law enforcement officer shall be admissible to establish that a particular chemical, drug, ingredient, or apparatus can be used to produce methamphetamine. For purposes of such testimony, a rebuttable presumption is created that any commercially sold product contains or contained the product that it is represented to contain on its packaging or labels.

(c) Possession of more than 20 grams of an immediate methamphetamine precursor shall be prima facie evidence of intent to violate this section. This subsection (c) shall not apply to the following persons who lawfully possess drug products in the course of legitimate business activities: (1) A retail distributor of drug products or wholesaler; (2) a wholesale drug distributor, or its agents, licensed by the Board of Pharmacy; (3) a manufacturer of drug products, or its agents, licensed by the Board of Pharmacy; (4) a pharmacist licensed by the Board of Pharmacy; and (5) a licensed health care professional possessing the drug products in the course of carrying out his profession.

(d) For purposes of this section, "structure" means any house, apartment building, shop, barn, warehouse, building, vessel, railroad car, cargo container, motor vehicle, housecar, trailer, trailer coach, camper, mine, floating home, watercraft, or any other structure capable of holding a clandestine laboratory.

(e) A violation of this section is a Class D felony.

SECTION 12. Tennessee Code Annotated, Section 39–17–434, is amended by deleting the section in its entirety.

SECTION 13. Tennessee Code Annotated, Title 39, Chapter 17, Part 4, is amended by adding the following as a new, appropriately designated section:

(a) There is hereby created within the bureau of investigation a registry of persons convicted after the effective date of this Act of a violation of 39–17–417 involving any substance defined in section 39–17–408(d)(2) or of section 10 of this Act.

(b) This registry shall be maintained by the bureau of investigation and made available for public inquiry on the Internet.

(c) The registry shall consist of the person's name, date of birth, offense(s) making him or her eligible for inclusion on the registry, the conviction date and county of said offenses, and such other identifying data as the bureau of investigation deter-

mines is necessary to properly identify the person, but shall not include the person's social security number.

(d) Starting September 1, 2005, the court clerks shall forward a copy of the judgment of all persons who are convicted of a violation of the offenses described in subsection (a) to the bureau of investigation.

(e) The department of correction shall forward as complete as practicable a list of all persons currently incarcerated or under their supervision who have been convicted of the offenses described in subsection (a) to the bureau of investigation.

(f) The Sheriff of each county may identify such other persons for inclusion on the registry as the Sheriff may deem appropriate, as long as such information is accompanied by a copy of a judgment indicating a conviction for a drug offense and a notarized letter from the Sheriff certifying that the offense was methamphetamine-related.

SECTION 14. Tennessee Code Annotated, Title 39, Chapter 17, Part 4, is amended by adding the following as a new, appropriately designated section:

(a) It is an offense for a person to intentionally use, or possess with the intent to use, any substance or device designed to falsify the results of a drug test of that person.

(b) As used in this section, "drug test" means a lawfully administered test designed to detect the presence of a controlled substance.

(c) A violation of this section is a Class A misdemeanor.

SECTION 15. Tennessee Code Annotated, Section 39–17–417, is amended by adding the following as a new, appropriately designated subsection:

( ) The offense described in subsection (a)(1) with respect to any substance defined in section 39–17–408(d)(2) shall include the preparation or compounding of a controlled substance by an individual for the individual's own use.

SECTION 16. If any provisions of this act or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the act which can be given effect without the invalid provision or application, and to that end the provisions of this act are declared to be severable.

SECTION 17. This act shall take effect immediately upon becoming a law, the public welfare requiring it.

BIOGRAPHY FOR ROBERT R. BELL

Dr. Robert R. Bell became President of Tennessee Technological University on July 1, 2000. Dr. Bell received his Ph.D. in organizational behavior and management from the University of Florida in 1972. Prior to assuming the presidency, he served as Dean of the College of Business Administration at Tech.

He has served four terms on the Board of Examiners for the Malcolm Baldrige National Quality Award. Presently, Dr. Bell is a member of the Board of Directors for the Tennessee Quality Award (1993 to present) and has also served on the Panel of Judges for the Tennessee Quality Award from 1994 to present. He also served as Economic Development Consultant to the World Bank and Lead Judge for the Panel of Judges for the National Quality Award of the Nation of Mauritius in the Indian Ocean in 1996 and 1997. In Mauritius, Dr. Bell served as lead examiner and chairman of ten site-visit teams. In 2005, he was the first recipient of the Ned R. McWherter Leadership Award presented by the Tennessee Center for Performance Excellence.

President Bell also served a four-year term on the national candidacy committee for AACSB International, the professional accrediting body for colleges of business. While serving on the candidacy committee, he served as pre-candidacy adviser for five schools, and served as accreditation consultant to three additional schools. He has been a member of twelve peer evaluation/site visit teams.

Dr. Bell has numerous publications in the scholarly arena in the fields of management, organizational design, computer science, and quality/productivity management. These include two books and over 70 articles, cases, and scholarly papers.

Dr. Bell currently serves on the Board of Directors and is Chairman of the Finance Committee of the Ohio Valley Athletic Conference.

Locally, Dr. Bell chaired the Board of Directors for the Putnam County Chamber of Commerce, chaired the Regional Quality Council, and chaired the Putnam Tomorrow Task Force for the Putnam County Commission. He is past president of the Putnam County Family YMCA, and has served as a member of the Quality Council for Cookeville Regional Medical Center. Dr. Bell chairs the Cookeville Industrial Board, serves on the Cookeville-Putnam County Chamber of Commerce Executive Committee, is a member of the Board of Directors of the Cookeville Noon Day Rotary and the Bryan Symphony Orchestra, and is a member of the Executive Board of the Middle Tennessee Council for Boy Scouts of America.

Dr. Bell and his wife, Gloria, have three children and three grandchildren. They are members of the First United Methodist Church in Cookeville.

DISCUSSION

Chairman BOEHLERT. Thank you very much, Dr. Bell. And I was glad to see you agree with Ms. Green, who said there is too little research, and that is what the focus of this bill is all about. We could argue persuasively, and Mr. Gordon and I would agree on this, it is no difference whether he is Democrat or Republican, on the need to provide adequate support to our law enforcement across the country, but that is another committee's jurisdiction.

You are right in emphasizing there is too little research, and Dr. Martyny, you pointed out, there is a lot we don't know. And I would add to that, and there is a lot that we don't know about what we don't know. And so given that, I would ask you to respond to the question: where do you think we should concentrate the research on the resources being provided under the provisions of this bill?

And Ms. Green, I will ask you to come first.

Ms. GREEN. At this particular time, I would say, from the perspective of drafting laws and regulations that are helpful, State and locals, really on health effects, short- and long-term, in terms of children and adults and their exposure to the chemicals in order to have that research for a health-based standard. This is an area in particular where the research, in terms of drafting, really needs to drive the content of the particular laws and regulations. And ev-

erything really centers around the research, which will allow the determination of appropriate clean up and remediation standards.

Chairman BOEHLERT. Dr. Martyny.

Dr. MARTYNY. I believe that, you know, we have got a fair amount of work looking at exposure to law enforcement officers coming into a lot of these situations. We have a pretty good idea on that. We have no idea what happens after the lab—the cook is actually done, what the exposures look like, how long do they last. This is exceptionally important because of children and things brought into these facilities. We know that every child that is taken out of these labs tests positive for methamphetamine. That essentially means that there are exposures that go on long past the lab itself. We have even had people moving into the labs six months later that had nothing to do with the cooking or anything like that where we have had pulmonary fibrosis, asthma, and things like this in these individuals, and so we need to know what is happening, why this is happening. Is it because of the methamphetamine? Is it because of other chemicals that are following along with the meth? Meth is easy to test for. Some of these other chemicals aren't. So we need better testing methods. We need to follow it over a long-term period of time. And I agree with Ms. Green that we need to have the toxicologists involved to see where these levels meet. We need to look at exposures and then find out, well, do those exposures mean that these will be the symptoms that we would expect to see in these kids. And how do we follow these kids and help them do better after they are removed from the exposure? We know very little about that. So that is the areas I——

Chairman BOEHLERT. Thank you very much.

Dr. Bell, did you wish to comment on that?

Dr. BELL. I agree with Ms. Green and Dr. Martyny. It seems to me that we need significantly more work on health effects, especially on children and others who are affected by the lab. And we also need a lot of work on byproducts. The pseudoephedrine and the product itself, the methamphetamine, we can identify, but we simply don't know what is there, both in the immediate lab environment, but also outside in the soil, in the site itself, in the trash dumps that are behind the home or behind the trailer in which this is being made.

Chairman BOEHLERT. Dr. Bell and Ms. Green and Dr. Martyny, is it fair to assume—you know the danger of assuming, but is it fair to assume that all of you applaud the initiative from the Science Committee in terms of putting more emphasis on research, because that adds—there are many dimensions to this problem. It is so much more than just law enforcement. And as the Sheriff pointed out to me when I visited with him and had an extensive introduction from him on the overall problem, he showed me photograph after photograph where they made drug busts where there are kids' toys and slides and things like that just outside or inside pointed out to me that oftentimes they will cook the substance in the children's room, because they don't think the law enforcement will look in the children's room.

And so I am so pleased, I hope all of you are, to see the large attendance on the part of the media, because part of the problem

is heightening public awareness of the issue. And another dimension to the problem I think that is very important is to protect those that we call upon to protect us every single day. So Sheriff, you have had a number of successful busts, I know that, and a lot of coverage. And the Sheriff related the story to me how he got a call from a reporter from the West Coast who was surfing the Internet and came across the outstanding record of Tioga County and contacted him about the record.

But let me ask you, when you first started all of this, when you started sending your teams in, what measure of protection did you provide for your team going in to lessen the exposure?

Mr. HOWARD. Well, I have to say, in the beginning, we were a little bit uneducated. We learned very quickly, though, once you enter into a meth lab, you have got some serious problems to contend with. At this point, we have a 12-man entry team, as they are called. They are HAZMAT trained. They wear protective gear when we take a lab down. Their job is to go in, secure the residence or the building, and take any suspects that they have out of the building. Normally, the suspects are usually left in place. In meth lab situations when we do a raid, we go in, we secure the building, we take everybody out of the building, and then we send in a full HAZMAT team to decontaminate the building and take a look to see what they have, collect evidence, see what chemicals are out. Once they do that, they try to do the best ventilation that they can by opening all of the doors, windows, and getting some fresh air into the residence before any other law enforcement personnel enter. And we don't normally enter until we get an okay from the HAZMAT team.

Chairman BOEHLERT. Thank you very much. And my time has expired unfortunately, because I have got a jillion other questions.

Mr. Gordon.

Mr. GORDON. Dr. Bell, following up on the Chairman's questions, does Tennessee Tech have any preliminary direct or indirect findings about the physical and behavioral effects of methamphetamine on children and first responders?

Mr. BELL. Congressman Gordon, we do have some findings, and I would be happy to provide those for the record. The results are very preliminary and very small samples at this point. One of the issues is how do we broaden this to more than one county school system and to—within that just a very small sample. So the—I would not claim to have a scientific analysis at this point, but simply preliminary findings.

Mr. GORDON. And Dr. Martyny, we have talked about the environmental contamination of methamphetamine, but what about outside the residence? And you know, do we know anything about, you know, how broad that contamination can be? For example, do we have a good understanding of the possible contamination of septic tanks or water systems, things of this nature?

Dr. MARTYNY. You know, I am not aware of any studies that have actually been done, however, we have had some real tough incidents, especially in Colorado, that I am aware of, of not necessarily the cook itself coming out the windows, you know, but what we have had is—one of the things they do during these cooks is they take and use what we call a "death bag." It is a bag that

has kitty litter in it that you essentially pipe the effluence into it and then, you know, that hopefully gets a lot of the toxic materials in there. We had a CDOT employee, Colorado Department of Transportation employee, that actually—that went into a roadside arrest and was opening—dumping the materials there, and here were the—there was a "death bag" and the chemicals in there, he ended up having to go to the hospital from exposure essentially from the—you know, the people didn't want to keep it there, so they just took and dumped it, not in their own trash, but out at these rest stops and things like that. And we are seeing this happen more and more. We are seeing a lot of the effluence dumped on bike trails, on hiking trails all throughout Colorado, because that way if you had been traced back, our enforcement has a harder time tracing it back to people. So it is very far-reaching. It is more than you think. It is not just the septic tank, not just the sewers, but people just strewing a lot of the chemicals throughout the area, trying to make it so it can't be traced back to them. So it does reach very far out.

Mr. GORDON. And when you are saying "tracing back," I—it was interesting in some of the earlier testimony that it is unique and it is almost like a fingerprint, and so that if you were to find this bag somewhere else or if you—if there was a 7-Eleven that was held up and you could swipe some type of residue, then would that match up with the original cooking area? Is that——

Dr. MARTYNY. Yeah, not to anything—we have not been able to do that. Even individual cooks might choose different methods. There are—lots of times, these cooks are being done by a co-op now.

Mr. GORDON. But I mean, because they do that, does that put a fingerprint on it?

Dr. MARTYNY. No, not as far as we are concerned.

Mr. GORDON. Does anybody else have any information on that? Dr. Bell.

Dr. BELL. I—we would agree with Dr. Martyny. We believe there is—that is our chemists in the—our environmental sciences doctoral faculty believe there is potential research there that can track it by—because again, each cook brings different combinations of these drugs into the environment. And we believe there is a potential for that tracking, but there is no data at this point that would——

Mr. GORDON. Well, that would be—I think that would really be significant if we could get down to the point where it actually was a fingerprint and we could—whether it were federal crimes or anything else that we could trace it back.

Thank—did you have anything, Ms. Green, that you wanted to add to that contamination?

Thank you very much.

Chairman BOEHLERT. Just to add on to that, Sheriff, when you go in with a bust and you are not sure—if they are not actually in the cooking process and you obtain some evidence, you are not sure really what it is. I mean, you just can't look at it and say, "Well, this is meth," or "This is cocaine," or whatever it is, and you send it off to a laboratory, is that correct?

Mr. HOWARD. That is correct. We send everything out to a lab.

Chairman BOEHLERT. So would it be helpful to you, and I think I know the answer, and I am not just trying to throw you a softball, but if we did the necessary research so we develop some sort of detection device where you could get almost instant analysis rather than sending it off to some lab in some distant city——

Mr. HOWARD. That would be a great help. We send evidence off now, because there is so much of it going on. We get backlogged. The labs get backlogged on it. And sometimes it is three to six months before we can get results on some testing. I mean, to have an instantaneous test done would be unheard of.

Chairman BOEHLERT. Is that the type of research, Ms. Green and Dr. Martyny, you think that we should engage in or at least be feasible—and is it—do you think it is feasible, or is it just a pipe dream?

Dr. MARTYNY. No, it is definitely feasible. I think that there are a lot of different methodologies that could be used for very—much more rapid testing than we have today. The capabilities are there. We just haven't proven that out yet.

Chairman BOEHLERT. Ms. Green.

Ms. GREEN. Yes, I would agree that field-testing, to the extent that it is feasible, and I would defer to my distinguished colleagues who know all of the science background. It would be preferable, because one of the main complaints we receive when we are working with states is that they don't know what they are getting into when they go into it for first responders. And I would add that most people reference law enforcement with first responders, but we have also had Child Protective Services workers who have told us that they have realized later on that they have been walking in and out of a house, not understanding that some of what they are seeing are paraphernalia of a manufacturing lab. So there are a number of different individuals, in terms of first responders, or people who would need that kind of test or ability to detect what they are actually seeing when they go into a house.

Chairman BOEHLERT. Thank you.

Mr. Calvert.

Mr. CALVERT. Thank you, Mr. Chairman. And again, thank you for this hearing.

Unfortunately for us in California, we have quite a bit of experience with this. And we have had some progress, and some of the law enforcement people that I have discussed this with also need research. And one of the things that was pointed out to me, and I don't know if any research is being done elsewhere in the country, is on thermal signature where equipment can be put on a police car or a helicopter or other equipment where you can identify a thermal signature that may be coming out of a trailer or from a motel room or from another suspicious location. Is there anything—any research that you are aware of that is being done, say, at Tennessee Tech or other places on that?

Dr. BELL. There are speculations about how that could be done, but we don't have any definitive research. A member of the Drug Task Force is now a representative for the State of Tennessee and has introduced some legislation to look at that. Judd Matheny is his name, and he served early as a helicopter pilot in marijuana,

thermal analysis. And he is hopeful that there is some, but we have no evidence of that at this point. It is worth investigation.

Mr. CALVERT. The reason I point that out, I am kind of double—I am on the Defense Committee, also, and we have been using thermal signatures for other purposes. And I don't know if we could explore—I know there is an issue of posse commatadus and how we share information and the rest, but has there been any outreach to the Department of Defense to maybe share in some of that technology, some of that research that is already being done, which we use, quite frankly, quite often. As far as you know, there hasn't been any sharing of information?

Dr. BELL. As far as I know, sir, there has not been.

Dr. MARTYNY. I believe there has been some work by Sandia Labs, trying to share information on remote sensing—developing protocols to actually be able to do remote sensing using forward-looking IFR and looking at some of these effluents coming off of the materials.

Mr. CALVERT. I was aware of software development working with utility companies to find spikes in utility operations. At that—has that been, in any way, perfected, or does that still need some work? I know that individual motel chains have been using that because of the problems they have had in motel rooms and cooking and those kinds of things. But are you seeing evidence of that in, say, upstate New York?

Mr. HOWARD. We haven't had any utilization of any software in that means. The power companies in our area are more than helpful when asked if they have had any spikes in the area, but we haven't had any software development or usage of software.

Mr. CALVERT. Well, and one last comment. I know, because of some success we have had in California, unfortunately these labs are being pushed out to the rest of the country, most of the methamphetamine that is coming now into California, 90 percent probably—and I don't know what it is nationwide, is coming out of these super labs, primarily out of Mexico and being smuggled across. So that is a—that is probably a problem Mr. Burns has to deal with, and I know that is probably not the jurisdiction of this committee, but I just want to point that out. And if you have any comment about that, that is the difficulty we are unfortunately living under right now.

Mr. BURNS. Well, you are absolutely right, Congressman Calvert. We have to be as fluid as the traffickers. For a time, the vast majority of pseudoephedrine was, as you know, coming in from Canada. We responded to that threat. We have seen a significant reduction of the super labs in your state, as much as a 50 to 60 percent reduction. And you are correct. We believe the threat has now moved to Mexico. I guess if there is any good news, they are polluting the rivers and the streams and the forests and the beautiful land in Mexico, as opposed to your state, but the bad news is the poison continues to flow into the United States. So we are responding.

Mr. CALVERT. Thank you.

Thank you, Mr. Chairman.

Chairman BOEHLERT. Thank you.

Mr. Matheson.

Mr. MATHESON. Thank you, Mr. Chairman. And Mr. Burns, it is good to see an Iron County person here in Washington. Bring some common sense to this town. I appreciate you being here.

Mr. BURNS. Thanks for saying that.

Mr. MATHESON. I wanted to ask you a quick question about—within ONDCP. How does it break out in terms of resources that look at meth compared to other drugs, say marijuana or whatnot? Do you have a sense of how your resources are devoted to different types of drugs?

Mr. BURNS. Yeah, that is a great question, because we know through household survey and we know through the monitoring the future survey that the 19.5 million illegal drug users in this country, about 75 percent are singularly or co-using higher-potency marijuana. We know that about six million are using illegal prescription drugs, about 150 percent increase in the last five years, as many of you know, Oxycontin and Vicodin and Lortab. About three million are using cocaine, 1.5 million using heroin, and 1.5 million using methamphetamines. So if you look at it macro and you look at the numbers, you would ask, "Why methamphetamine? Why is everybody talking about this drug when of the 19.5, only 1.5 million are using it?" And the reason why it has been addressed, yaba, ice, crystal, crank, meth, whatever you want to call it, is the most destructive drug. It gives the user an immediate feeling of euphoria and energy, but it doesn't really give it, it just lends it. And what the user has to pay back is at a very, very high cost.

We have, in the National Drug Office, responded. We have responded through the Drug Endangered Children Program, or DEC, wherein we are trying to have each state come up with a program to deal with children that are found in these labs. We have responded through the National Methamphetamine Chemical Initiative, which, frankly, brings together key methamphetamine law enforcement people from all of the jurisdictions across the country two or three times a year to talk about trends shifting from California to Mexico and how we respond. And I would say, frankly, the HIDTA program, 28 HIDTA offices across the country, out of all of the individual drugs, and these areas pick what is their primary threat, there are more initiatives directed towards methamphetamine than any other drug. So hopefully, we have our priorities right.

Mr. MATHESON. And do you sense, in terms of—you mentioned the numbers from the last—but in terms of growth of use, I assume meth is one of the higher growth rates in terms of where—compared to the other drugs you have mentioned. Is that a fair statement?

Mr. BURNS. Except for the last one or two in the future survey shows a 25 percent reduction among kids, which is encouraging. And you mentioned it is good the media is here. It is good the media is here, because I think we are spreading the word about the destructive nature of this drug.

Mr. MATHESON. A question for Dr. Bell. You mentioned how the research you have done has been helpful in developing legislation in your state. And I had to step out for just a minute, so I—you may have addressed this, but I wanted to know if you share the

research with other states. And is there a mechanism to provide access where people are sharing their information in that regard?

Dr. BELL. Yes, there is a mechanism. The research that we have done at Tech was done over the Christmas holidays because of safety issues for the students. And it was embargoed until the new bill was introduced about two weeks ago, so it is just now flowing out. The drug task forces and the governor's office both have mechanisms for sharing with other places.

Mr. MATHESON. And in terms of development of—you said this is going to help develop some proposed legislation that your governor is supporting, I understand?

Dr. BELL. That is correct.

Mr. MATHESON. And do you have a sense of—this is probably not a fair question for you to ask, but are other states trying to look at the Tennessee model now with this proposed legislation?

Dr. BELL. My sense is other states are interested, much like we are interested, in what is happening in other states, so I think this model can be used in other states. There are some challenging issues in the legislation, and certainly the restriction of sale of the over-the-counter drug is one of those. So I know other states will be following it with a great deal of interest.

Mr. MATHESON. Thank you, Mr. Chairman.

Mr. CALVERT. [Presiding.] Okay. Mr. Reichert.

Mr. REICHERT. That is okay, Mr. Chairman. I am the new guy here, but I do have a keen interest in this topic for a number of reasons. Sheriff, just eight weeks ago, I was a Sheriff, so I know exactly what you are dealing with. I was the Sheriff of King County in Seattle, Washington. And about 10 years ago, you may recall, DEA made an announcement, meth will be the next dangerous drug that we are going to have to deal with across this nation. About five years ago in King County, we pulled together a team of people, statewide, Sheriffs, Police Chiefs, and every discipline, and what I am pleased to see today is that you have come together here as a team, because this doesn't just touch law enforcement or firefighters or environmentalists. This really touches at the heart of this country. This touches our children.

And that is the second thing I want to talk about. One of my grandchildren happens to be a baby who was born to a mother who was addicted to methamphetamines. And he right now is almost three years old and is dealing with some learning disabilities and also has some breathing issues as, I think, one of the witnesses testified to today as a possible health side effect.

Third, this drug is so dangerous, it takes—if you are hooked on this drug for one year, it can take five years to kick it. At first, it was thought that you couldn't kick it. So two years—one year—two years, you can lose 10 years of your life. And that is the reality of this drug, and that is why it is so important for us to fight this battle.

As a citizen, I was asleep one night at home, and I heard some noise outside my driveway. So, still as the Sheriff, I thought I would investigate that and discovered that a mobile meth lab had pulled into my driveway in a rural area southeast of Seattle, packed with chemicals, packed also with two people carrying guns, looking to do a drive-by who felt they were being ripped off, an-

other danger to our community. We have established, in Washington State, throughout the state, meth action teams. And in King County, we have a 35-member team, and I will just list some of the disciplines very quickly as to those people who are a part of those teams: law enforcement, social and health services, education, environmental, real estate, federal, prosecuting attorneys, the Congressional delegation. All of those people have come—prevention, intervention, and treatment. Those people all have come together to address this issue. In fact, Dr. Keppoy—I am sorry, James Kopple, I saw walk in, was one of the people who helped us in the State of Washington put our meth action teams together, so I think he would be a great resource for you coming from the National Crime Prevention Council.

My question is, as you move together as a team, do you see this legislation helping you develop partnerships in some of these areas that I mentioned so we can have a holistic approach to this problem? Anybody?

Ms. GREEN. Congressman, I certainly do. I think this is probably one of the best mechanisms that I have seen in recent years to ensure—and from my perspective, one of the things I am very much interested in is ensuring that accurate information gets to policymakers who are making decisions on—about what will happen in their state. And I think it is one of the best mechanisms I have seen to ensure that, on an issue where legislation and policy must keep pace with innovations in research and technology, to ensure that state-of-the-art information gets to all of the different constituencies and disciplines that have to, basically, address the issues arising from methamphetamine laboratories, whether it is trying to decide what particular protocols to use with children who have been removed or attempting to deal with what kind of liability issues and cleanup issues you may have, either in a rural area, or as people are now talking to us about, in apartments and hotel rooms. I think it is a very critical mechanism to ensure that kind of collaboration and the widespread dissemination of accurate information about how to address these methamphetamine laboratories.

Mr. REICHERT. Let me just comment, too, that when we started our effort to fight meth in the State of Washington, we were number two in the state as to the number of meth labs in the country. Today, we are number six. The county just south of King County, where I was the Sheriff, last year, however, had 500 labs. King County had about 250. We have made some progress. And I think with NCPC's help, hopefully you could connect up with the National Crime Prevention Council, and there is also another organization called the Pierce County Alliance, which has made great progress in studying the effects on children and also some of the effects on the community as a whole.

So thank you very much, and thank you all for your hard work. And Sheriff, it is nice to have another Sheriff in town.

Chairman BOEHLERT. Thank you very much, Congressman.

Mr. Green.

Mr. GREEN. Thank you, Mr. Chairman and Mr. Ranking Member. I salute both of you and compliment you for having these hearings, and quite candidly, for being—allowing me to be a part of these hearings as a neophyte.

I want to commend the panel. This has been an outstanding panel, and what you have said has been more than edifying. It has truly been an education for me today to hear much of what you said.

I have any number of concerns, because the omnipresent nature of the problem seems to create quite an enigma for you. I have noticed that we seem to be in our infancy as we are quarreling our empirical data, which means that we haven't quite gathered the sense of direction that we are looking for. And some of my questions will relate to the sense of direction.

But first, Ms. Green, you mentioned liability issues just a moment ago. Do we have any sense of what type of standardized notice should be accorded a property owner who has had the unfortunate circumstance to develop in his property with a lab?

Ms. GREEN. Yes, Congressman. There are several statutes, in particular Washington State and Oregon, that have dealt quite significantly with notice issues. And there are really three types of notice issues that are dealt with with respect to an owner. The first is when someone, like law enforcement, first notices a lab, what kind of notice do they have to make to state officials and then what is the responsibility of those particular agency officials to contact the owner to see if the owner knows. There is also a particular notice that has to be placed in certain county auditor records. In some respects, people are attempting to put notice in certain title records and other kinds of public notice property records that would allow an owner, even an absentee owner, to identify, upon regular perusal of those types of records. There is also a different type of notice, which is a build-upon to what you just suggested in terms of the owner knowing, which is a future owner, a potential purchaser. There are particular states that would require a seller to give notice to a potential purchaser that there has been a particular meth lab on that particular property. And the potential purchaser has a number of days to decide whether or not to cancel that particular contract.

So many states, particularly in the west, are addressing that particular notice type of issue.

Mr. GREEN. Thank you.

And Dr. Bell, you talked about what I will call an—well, I suppose an intrastate integrated system that is being developed. How can we efficaciously move to an interstate integrated system?

Dr. BELL. As you said earlier, we are in the infancy of many approaches to addressing this problem. The data collection is one, but certainly the collaboration is still in a learning stage, too. In most states, there is a task force that links to other states. The governor's office in our state, and I presume in most, has a coordinator. And there are individual mechanisms that are loosely linked at this point that, over time, I think we will see much more maturity. But certainly, at the federal level, it would help to continue the efforts that are already there to coordinate through the number of agencies that are currently involved. DEA, National Institutes of Health (NIH), all of these, right now, are involved in one way or another. I think the issue is going to be how we find a focused group that truly is interstate in nature. There are several now. The question is how to focus on one interstate activity in the long-term.

Mr. GREEN. And my final question is for Mr. Howard, Sheriff Howard.

Protecting protectors is, sometimes, expensive proposition. Have you now a grasp on how this is impacting your budget, the whole notion of acquiring the necessary funds so that when people do rush into these unfortunate situations, they are properly protected? How does that impact your budget, please?

Mr. HOWARD. It has impacted our budget, obviously. We are a relatively small department. I have 126 employees. We have applied for and received several grants for equipment and training, which we have utilized in the last two to three years. Also, there is a lot of forfeiture laws and seizure laws that we have taken advantage of, and we take that monies that we have received and turn it back into training and education for the men and women in my department.

So we are keeping our head above water, as far as that goes, but it is an impact on the budget. The problem we run into is the manpower issue on labs. I have a 12-man team for the labs, but half of that team are uniformed officers. The other half are plain-clothes investigators. Those investigators are the ones that really do the legwork on these labs. It takes hundreds of hours, and that is where the budget comes into play, the manpower that we have to pay out for those men.

Mr. GREEN. Thank you.

Chairman BOEHLERT. Sheriff, would you also respond to the first part of Mr. Green's question, the first phase of it, because I think it is very important? What notification requirement is there? You go in. You bust. You apprehend. You secure the crime scene. The judicial system works its will, and hopefully, the perpetrator ends up behind bars where he or she belongs. But what do you do or what is the New York, Mr. Hamilton, obligation to notify the property owner? I mean, if it is a rented apartment or a motel, they didn't do anything wrong, and they are not aware of anything. They are not facilitators, but they have to know that this took place within their property, because, as you have convinced me, and you have shown me the evidence, you know, the property is contaminated. So an innocent landowner, renting out an apartment, an innocent motel owner renting out a room, this illegal activity takes place, law enforcement works its will, what about the aftermath? What about the carpets? You come in and vacuum it or paint the wall, but there are still contaminants in the drywall and the carpet, and the next occupier has little kids playing around on the floor, as all little kids do. So what is the notification requirement in New York? Who wants to——

Mr. HAMILTON. Well, in New York, a standard practice is to notify everyone that we can, everyone under the sun. And that is not far off the mark, because there are so many aspects to this problem, as you well know. We contact the Social Services people, certainly the public health officials, local code enforcement people, and that is all in addition to notifying the property owner. The——

Chairman BOEHLERT. How do you do that, because the Sheriff, after his success, reports in, and that material comes—that information comes to you, among others?

Mr. HAMILTON. Typically, a law enforcement agency, such as the Sheriff's department who goes in to seize a lab or to execute a search warrant, when they—if they don't already know going in that they are dealing with a meth lab, soon realize that they are dealing with toxic waste, the potential dumping of toxic substances, and will routinely call the Department of Environmental Conservation or local environmental officials. We come in, assess the situation, and, as part of that assessment, bring in and/or notify local public health officials, local code enforcement people, et cetera, and the property owner. I almost sound like I am saying that as an afterthought, but it is not. What is important here, and in fact, maybe this is an important point to raise, there is an anomaly for the environmental community and the environmental agencies with regard to dealing with methamphetamine clan labs, and that is this: most environmental laws are meant to deal with toxic dumping and illegal handling of toxic substances, usually by large industrial or commercial generators. And as a result, those are entities, which usually can be—which can be brought to bring their financial assets to bear to finance the clean up of the problem. For obvious reasons, with methamphetamine clan labs, first of all, the property owner, many times, is not the person who generated the waste. Second of all, the property owner may be a—may not have the financial means that a large industrial or commercial entity would to finance a clean up. Certainly, the operators, the cookers, who set up and work the lab, are usually not people who have the financial means that we can latch onto to do this clean up. So there is a financial aspect that comes in here that wasn't anticipated when some of the environmental protection laws were passed and, you know, we are just beginning to encounter and deal with that issue now.

Chairman BOEHLERT. Thank you for that.

But you, in your response, you said typically the Sheriff would report. Is it typically or what about the atypical situations? The point is, Sheriff, are you required to report on high when you engage in a bust like this?

Mr. HOWARD. No. No, we are not. We try to—as Mr. Hamilton says, we typically notify everybody that we can and let them know what is going on, but atypically, no, we don't. There are times that we don't notify everyone.

Chairman BOEHLERT. And that is one of the causes of concern here, because the next tenant of that motel room or that rented apartment or the next purchaser of the motel or the apartment, they—as I said, they don't know past history unless there is some sort of record. I mean, good gosh, we require a termite report. If you sell a property in Virginia, you have got to certify that it is termite free. Maybe we ought to do something along this line, not for every residence, obviously, but perhaps for those, Ms. Green, that where we know illegal activity has taken place. One, there should be some sort of notification requirement, it seems to me, to make sure that the proper people do know, but a requirement, not just, "Oh, tell if you get a chance." Well, that is enough said.

Mr. Schwarz.

Mr. SCHWARZ. Am I correct—and this is for Mr. Burns. Am I correct in thinking that methamphetamine, because of some very obscure medical uses, is still schedule two?

Mr. BURNS. Are you talking about on a——

Mr. SCHWARZ. I am talking about the substance itself, when they—you can still legally make it, some companies do, that has some—they use it for narcolepsy.

Mr. BURNS. The drug methamphetamine has no legitimate medical use.

Mr. SCHWARZ. The——

Mr. BURNS. None.

Mr. SCHWARZ. Then why is it not schedule one?

Mr. BURNS. In many——

Mr. SCHWARZ. States it is.

Mr. BURNS. Yes.

Mr. SCHWARZ. We have made it schedule one in Michigan, but federally——

Mr. BURNS. Yes.

Mr. SCHWARZ.—I believe it is still schedule two, is it not?

Mr. BURNS. Yes, the—that is one of the issues that we are addressing in the synthetic action plan.

Mr. SCHWARZ. Yeah. And Mr. Chairman, that is one thing that we should do federally is put it in statute, I believe, that methamphetamine is a schedule one substance and has no legitimate medical use, because, in fact, there are a number—I am a physician. That is—let me preface my remarks with that. There are other Central Nervous System (CNS) stimulants around——

Mr. BURNS. Correct.

Mr. SCHWARZ.—that can be used, and methamphetamine itself has no legitimate use. And I agree completely with that.

Chairman BOEHLERT. Good point. Is that something, Mr. Burns, that we can get you to seriously entertain as you tackle this problem?

Mr. BURNS. Certainly, Mr. Chairman. Let me just say Ms. Green and I run into each other probably two or three times a month crisscrossing this country trying to deal with individual states who are struggling with this. I was with Congressman Walden a couple of weeks ago in Oregon. In Oregon, Congressman Hooley would know that the penalties are more severe for marijuana than methamphetamine. And so it has been a constant effort on our part at the White House to go from state to state to try and assist them individually.

Chairman BOEHLERT. But we all, the White House included, and this committee included, have to be very vocal about helping to educate the public.

Mr. BURNS. Yes.

Chairman BOEHLERT. And you know, I find—and I am not going to take this out of your time, but I find, for example——

Mr. SCHWARZ. Thank you.

Chairman BOEHLERT.—in town meetings from back home, to emphasize the seriousness of this, we will start out with a youth group, particularly, or a PTA group. You know. Experts tell us, try something like meth today and the odds are heavily against you living beyond the next couple of years. You will be dead in five

years. Boy, that grabs their attention. And then you begin to talk about the problem.

Back to you, Dr. Schwarz.

Mr. SCHWARZ. Yeah, and I believe that methamphetamine should be federally recognized as a schedule one substance with absolutely no legitimate medical usage in the year 2005, and there is no question in my mind.

Dr. Bell, are you a pharmacologist or——

Dr. BELL. No, sir. I have a Ph.D. in business administration.

Mr. SCHWARZ. You are not a pharmacologist then.

Dr. BELL. I am just a college president, which means I know a little about everything.

Mr. SCHWARZ. Well, there is someone on the panel, what is the source—the ephedra that comes into this country—legitimately, the raw ephedra, where does it come from? Is it the Far East some place? I believe. And so——

Mr. BURNS. You are correct. There are about seven major sources internationally for both ephedrine and pseudoephedrine that comes into the country.

Mr. SCHWARZ. But the raw ephedra——

Mr. BURNS. Correct.

Mr. SCHWARZ.—itself, because we refine it and make the pseudoephedrine. Would it not be appropriate to somehow put federal restrictions on the substance ephedra itself as it comes into the country? States have done it. As you know, in numbers of states, you can only buy so many ephedrine-containing pills at your local 7-Eleven or something of that nature. Would it not be appropriate to somehow federally limit the amount of ephedra that can come into the country? I ask the question just for my own information.

Mr. BURNS. Yes. In fact, that is one of the key topics, again, of the synthetic action plan that will be out in April is to address that very issue that you raised, that we treat it as we do other imported drugs and control it and schedule it. We look at the importation. We look at the bulk sales. We look at the spot market and control it much better.

Mr. SCHWARZ. So would it not enhance that cause to memorialize that concept in statute as well?

Mr. BURNS. That is where we are headed. We will recommend that to you at some point, I hope.

Mr. SCHWARZ. Thank you very much. And I would—Mr. Chairman and to the people who are here testifying, I very, very strongly support this bill, because the effluvia from meth labs is as toxic as toxic can be, and my Congressional District in Michigan is an area where we have bust after bust after bust of ephedrine labs. So thank you very kindly for being here, and thank you, Mr. Chairman.

Chairman BOEHLERT. Thank you very much, Dr. Schwarz.

Let us see. Mr. Davis.

Mr. DAVIS. Thank you, Mr. Chairman. I want to compliment Ranking Member Bart Gordon and other Members of this committee, you as well, Mr. Chairman, for realizing the necessity for the bill that we have before us today.

I represent a rural area in Tennessee. When you look at the different analyses, the 4th Congressional District has the fourth most rural residency of the 435 Congressional Districts in this country. Probably 95 percent of the Cumberland Plateau, with a population of roughly 450,000 people live in the District that I represent. Dr. Bell, your work with local law enforcement, your work with the governor's task force and others certainly needs to be recognized for starting a process that can at least help law enforcement and others in our state, and perhaps even the Nation, in being able to identify and find some way to give some relief or at least some prewarning to law enforcement officers, the first responders who may be going to a meth site.

We have talked some today about the capital of real estate that an owner might lose. But the human capital that we are losing in the area that I represent, there is, perhaps, not a family in my District that either does not know someone or have a close or distant relative that has—their life been taken as the result of methamphetamine. It is a horrible affliction. It is a cancer that continues to eat. And it is cheap, and it is deadly. I hope this legislation—and we are talking about the bill today. I hope this legislation will at least put in motion the experimentation, the research, the finding of some answers as well as warning systems for our law enforcement and for people in the District that I represent and throughout the space nearby the danger of methamphetamines.

Having said that, Dr. Burns, in the District I represent, there are eight counties that have had at least 20 meth lab busts in the last year. Pretty harsh. If you look at the resources that you have available, $200 and some odd million I think is what I see, how much of those—or what percentage of those would be utilized in addressing this problem of methamphetamine? When we are talking about a problem that has been nationwide recognized, and certainly the areas that I represent probably the last five to eight years, marijuana, heroine, cocaine, other different addictive substances—obviously we have had a constant war on drugs in the last 30 or 40 years. This new drug seems to be hitting everyone, regardless of their economic scales or—how much—of the total resources that you have, how much are you directing towards solving this problem, the methamphetamine?

Mr. BURNS. You know, I would have to do a breakdown and get back to you with some specific numbers. I can tell you that over the last two years, in 2004 and this year, in excess of $50 million for clean up to assist the states. As I said earlier, the HIDTA program supports State and local law enforcement. And I think we all have to remember that the primary responsibility is local Sheriffs and Chiefs and law enforcement. But we have tried to, in a strategic fashion, support their efforts. And you are correct; your state has probably been disproportionately hit harder than any other state in the country in the last 12 to 18 months.

Mr. DAVIS. Congressman Gordon's initiatives and with my working with him has been able to find about $500,000 in grants for a judicial district in our District. And one of the successes I think that we are seeing, perhaps, in the area where there may be more concentration population-wise, which is the northern part of the plateau, by working with local law enforcement, developing an in-

formation booklet that has been sent, basically, to each home. But we have had this trouble in finding those dollars to be able to at least provide an information flow, a warning system. Bill Gibson, the district attorney, has worked—instead of using the money for putting more law enforcement officers, really felt that education is something that ought to be a part of that. Are there dollars available from your agency that could help provide funding for educational——

Mr. BURNS. There are, and I would also add that the National Youth Anti-drug Media campaign, we have seen, I believe, great success with marijuana, and it is our intent to, in the near future, start doing methamphetamine ads to better educate folks across the country.

Mr. DAVIS. Dr. Bell, again, thanks for the work that you are doing.

I have got to ask you this question. If you had additional funding available to you, and you seem to be the one college in Tennessee that is probably doing the research of finding solutions that we must have to address this problem, but if you had additional funding, how much more successful could you be in giving hope and avenues available to help fight this problem in the up and coming——

Dr. BELL. That is a question that is very appropriate. Obviously, it would allow us to do more basic research. It would allow us to do more outreach. And in that sense, the funding would simply magnify what we are currently doing and let us leverage what we are doing.

You mentioned the booklet the drug task force has done. The most recent product, Congressman Davis, is an interactive CD–ROM that has age-appropriate material on it. It can be filtered by the age of the child or the class that they are in. There is also material on here that can be focused on sanitation workers, on emergency medical services workers, on firemen, or on police, or many others. So we are moving to a point that we can help deliver to school systems and to others not just printed material, but also interactive material that a teacher can use. They can pull off of this outlines of curricula, interactive tests that they can work with with the students. And things like that take resources. We currently, through that grant that you were talking about, have the capability to produce a number of these. I brought ten copies for the Committee as a pre-release, but this should be going public next week, and I will be sure that each Member of the Committee is given one. Again, further resources would let us distribute that in a much wider fashion.

Mr. DAVIS. I thank the panel for being here. Mr. Chairman, thanks for giving me an opportunity.

I yield back the rest of my time.

Chairman BOEHLERT. Thank you very much.

Dr. Bartlett.

Mr. BARTLETT. Thank you very much.

Do I understand that ephedrine is one of the substances used in making this drug? I am searching a very old memory bank, but what is the relationship between ephedrine and adrenaline?

Mr. BURNS. I would defer to Dr. Schwarz.

Chairman BOEHLERT. Dr. Schwarz.

Mr. SCHWARZ. They are vaguely related in that they are both stimulants. Adrenaline is a vascular stimulant that has vasoactive properties, as does ephedrine. They are both, in fact, very strong bronchi-dilators, that is why when you have somebody in status asthmatics, they are—their bronchi are just clamped right down. You give them adrenaline and people who are asthmatics, frequently asthmatics, will be taking an ephedrine-containing compound as well as a dilator. So they have numbers of very similar pharmacologic effects.

Mr. BURNS. That is exactly what I was going to say.

Mr. BARTLETT. It was my memory that ephedrine has essentially physiologically the effects of adrenaline. Does that mean that one of the effects of this drug is that it is sympathomimetic? That is one of the effects of the drug? Okay.

Yeah, what we are doing here today reminds me a little of the story of the Thursday night prayer meetings in a rural church where every week Brother Jones in his prayer would ask the Lord to remove the cobwebs of sin from his life. And after several weeks of this, one of the ladies, when it came her time to pray, prayed that the Lord would please kill the spider of sin in Brother Jones' life. What we are dealing with here, of course, are the cobwebs. The spider here is obviously the demand for this drug. And as long as there is a demand for this drug, there will be laboratories making this drug. Do you feel that we are directing enough resources to understanding the culture that could support this kind of drug use, because ultimately, that is the only way we are going to solve this problem? If we don't understand the culture and stop the demand, you are going to forever be mopping up these—the consequences of these labs. Yeah. We need to do that. You know, as it said in the New Testament, "This ought you to have done and not to have left the other undone." And we have got to mop up these labs, but at the same time, we have got to be moving aggressively to understanding the culture that supports this level of use. Do you think that we are nationally committing enough resources to understanding this? This is a dumb thing for young people to do, and it is clearly a matter of education.

Ms. GREEN. Congressman, based on what we are seeing when we work with states, I—my answer would be no. We are not doing enough. I think because many states were hit with the ballooning of the meth labs, their attention primarily focused on taking the labs down and the consequences to the children removed. I think there is insufficient attention and insufficient resources, both nationally and in every state, that is being directed towards the education end of it, also the treatment end of it and understanding what treatment is available and providing adequate levels and modalities of treatment to address the problem, so we don't have, as the Director of Oklahoma Bureau of Narcotics told me, in their instance, the reason their meth labs were out of control is they had active addicts repeatedly returning to the culture and making the methamphetamine. So my answer would be, based on what I am seeing at the state level, no.

Mr. BURNS. Let me just add to that. Those of us from the West Coast have been dealing with this for over 20 years. We have been

shouting and screaming, "It is coming. It is coming," and talking to my colleagues, district attorneys from the East Coast years ago, they had no idea what methamphetamine was and possibly shame on us because we didn't do a better job. But the good news is, Congressman, we are not only dealing with the cobwebs, but we are also dealing with the spider on the West Coast. Labs are down. There has been a tremendous decrease in not only super labs but small, toxic labs. We are getting much smarter. We are working together, as Congressman Reichert—Sheriff Reichert said with teams and bringing people together. But in some states, labs are going through the roof. And we need to take what we have learned in California and Nevada and Utah and Oregon and Washington and get with our brothers and sisters on the East Coast to help. And we are doing that.

Mr. BARTLETT. The wind blows from west to east, and many of our national problems seem to come from west to east, don't they?

Thank you very much.

Mr. BURNS. Thank you.

Chairman BOEHLERT. Thank you.

Mr. Carnahan, talk about middle America.

Mr. CARNAHAN. Thank you, Mr. Chairman, and Ranking Member Gordon.

Yeah, I am from the State of Missouri, and we have the unfortunate distinction of being at the top of the problem. That is not what we want to be known for. But thank you for being here and for your time and your expertise today.

I wanted to start by asking that law enforcement, and Sheriff, maybe I will direct this to you, but with the statistics that you mentioned that 50 percent of law enforcement are often affected by health issues when they have been exposed to these labs and that we don't know enough about the health impacts and we really don't have a set standard, what guideline or standard do you see in use in law enforcement now to protect law enforcement when they are subject to exposure?

Mr. HOWARD. Well, we take all steps when we take a lab down. We don't take any chances. In the beginning, as I said earlier, we took some chances and got educated very fast. And I have to refer this to Dr. Martyny. He was the one about the 50 percent of law enforcement officers being overcome by fumes or being hurt. But we have, to this point, have not had any officers suffer any type of injuries because of the chemicals or anything because of the precautions we have taken. We do not take any chances. And if there is any member of the team who thinks they are going to take a chance are immediately removed. We do not put up with any of that. There are serious consequences of going in without protection on. As we have seen on the video clip, it is very dangerous. So we take every precaution we can take or we won't go in. It is as simple as that.

Mr. CARNAHAN. Thank you.

I also wanted to follow up on the issue of cost in terms of what communities and law enforcement are having to bear. Do you see around the country much use of additional financial penalties or property forfeitures from property that is involved? And is that

being put back into the law enforcement to help out—to help with the cost of the problem?

Ms. GREEN. Congressman, based on what we are seeing, yes. What is happening now is they are attempting to seize and forward some of the properties, use the proceeds, and that would go back into law enforcement. They are creating specified penalties, and then that would go into particular earmark funds at times with that money being able to go back to law enforcement. Even so, what I would say is, based on what we are seeing, given the pace at which the labs are multiplying, most of the state resources are still being drained in the direction of dealing with meth labs. So they are attempting to use those mechanisms to the extent they can, but it is still insufficient at this point.

Mr. HAMILTON. Congressman, just to add to that, in usual law enforcement situations where you seize property that was either used in the commission of a crime or was the—or was otherwise connected with the crime, you are seizing an asset, which does have some financial value to it. One of the problems that we are finding is that to seize a—what was the site of a meth lab, whether it was a residence or a garage or a motor vehicle, because of the contamination and the deadly contamination associated with that building or that vehicle, it no longer has financial worth associated with it. And in fact, in some instances, it is estimated that the cost of decontamination or cleaning up the residence may exceed what would have been the normal market value of the property. So it is another one of the anomalies that comes into play when you are dealing with these clan labs.

Mr. CARNAHAN. And finally, Dr. Bell, you had mentioned that you had done—had some preliminary findings with your research, and I wonder if you could briefly describe what those were?

Dr. BELL. Which research, sir?

Mr. CARNAHAN. With regard to—I thought you were describing with regard to health impact to people that were exposed.

Dr. BELL. The studies that we have been involved in have been more the psychological and learning disabilities impact. And again, they are very preliminary. But some of the areas that we are interested in and our district attorney and emergency services personnel have worked with us on these, when you get a very young child who is in the lab at the point that the team moves in, their first confrontation is with a group of armed individuals who are dressed in either SWAT or HAZMAT suits. They appear to feel like they have been attacked. They are immediately stripped of all of their clothing, and they are put, Congressman Gordon mentioned the bunny suit, in counties where there is planning and resources, that is true, but in other counties, they are simply wrapped up in a space blanket or some kind of an aluminum foil and taken to an emergency room where they know no one, et cetera. The effect in the short term is traumatic. What we are unclear of, at this point, is what the long-term effect is. Clearly, there are biochemical effects that have the potential for dramatic learning disabilities. So there is some psychological short-term effect. Some of our data indicates that may go away within a few months, especially among younger children. But the learning disabilities and the other adverse effects, like asthma and breathing problems, obviously are

going to affect that child for many, many years. Our data is very preliminary, so we are dealing with a one-county school system and a very small sample. And as Congressman Davis said, more resources will help us address larger populations.

Mr. CARNAHAN. Thank you. And thank you all for being here.

Chairman BOEHLERT. Thank you very much.

Ms. Jackson Lee.

Ms. JACKSON LEE. Thank you very much, Mr. Chairman. Let me thank both you and the Ranking Member for this hearing.

And let me also thank the Ranking Member for the initiative of this legislation, which I was delighted to be a co-sponsor.

Texas is a large state, but—we are large, but we are not without impact of meth labs. And I just site, for the record, that as of February 24, 2005, the State of Texas recorded 422 incidents related to meth labs, and that may mean explosions or other incidents that the cooks cook up, if you will. And we know that nationwide, there are 16,326 incidents. So we might say that we are long overdue in sort of getting our hands around this in a national manner.

And I would pose two questions, and I thank you for your indulgence. We are in several hearings that are occurring at once, but I thought that this was such an important first start, and this legislation, I hope, will move very quickly, because I am very interested in the local and federal collaboration that I think is important in any fight against the proliferation of drugs of any kind.

Just a few years ago, I passed the date rape drug, that is GHB, that people were making in bathtubs. And I am sure that law enforcement and others came across this industry of young people—even the formulas were on the Internet, a new, sophisticated use of the Internet.

Let me ask just two specific questions. And Ms. Green, if you would tell me—I chair, also, the Congressional Children's Caucus and am interested in the negative impact on children. One, these are homes, mostly. Sometimes the homes are sold. Is—the legislation that we are looking at today, can it actually save lives?

Ms. GREEN. I believe so, Congresswoman, because what is unknown now about the research is exactly what effects is the exposure having on children. Without that knowledge, it means that we don't know what protocols we should be using to address the potential problems, the immediate problems of the child, but also potential problems in the future. And I think with this type of bill, the research first, but also the ability of this mechanism to disseminate the information to decision-makers throughout the country will ensure that the proper protocols are developed so that the children can be adequately taken care of in the immediate, but also throughout their lives to address whatever potential long-term consequences they might be suffering as a result of the exposure.

Ms. JACKSON LEE. I think if there is a bottom-line crux or anchor or mantle for this hearing it is that this legislation can save lives. We are now looking at the aftereffects of the firefighters, first responders, and others who went into the building, fought the fires of 9/11. We will probably look at that, beyond the tragedy of those who lost their lives, those who now live with that ailment, if you will, of having gone in with those kinds of fumes or chemicals meshed together. So I think the question of saving lives is crucial,

and in—particularly in science, good sciences, it is important, but the good science that leads to saving lives.

I would also like to ask Dr. Martyny, who mentioned the lack of guidelines for—and forgive me if I was out at another hearing when this was discussed, on first responder equipment. What do we know about this? Both law enforcement, meaning police on the police side, but our firefighters, what do we know about the lack of guidelines or how quickly we need to move toward providing some answers for that to ensure safety on that aspect as well?

Dr. MARTYNY. You know, I think we have made huge strides in the last, maybe, one or two years. I think, as the Sheriff mentioned, we have—most law enforcement agencies nowadays are sending people in with self-contained breathing apparatus and good clothing, good protective to make sure, number one, that they aren't injured. Number two, another factor that we are concerned about is them getting contaminated and them bringing the contamination home to their families. So we are interested in both of those. DEA has been really good at training a lot of these officers, and I think we are going to get better and better. We still have—are still trying to get the word out. And the more training and education we can do, the better off we are, but we have moved a long ways in a short period of time, and I think we will continue to move.

Ms. JACKSON LEE. Well, I will just conclude my questioning. I thank all of the panelists, and your testimony will be well reviewed, and I—my lack of questioning is not out of a lack of appreciation for your statements, but I just want to emphasize that one element of this bill does require a study by the National Academy of Science on the long-term health impacts of children taken from meth labs, again usually homes, and also on first responders. And I would like for this committee to monitor the progress being made on the guidelines and usage of better equipment for first responders of all kinds, because I think your point is very well taken.

I thank the Chairman, and I yield back my time.

Chairman BOEHLERT. And I thank the gentlelady for her intervention. And as you can gather from what Ms. Jackson Lee said and what has been said by many of our panel members previously, this is a subject of great concern. It is growing, and we want to contain it, but more importantly, we want to learn how to respond to it in an appropriate manner to protect all of those innocents out there who are just so vulnerable.

I want to thank all of you for being facilitators for this committee as we go about our business. Thank you very much.

[Whereupon, at 12:15 p.m., the Committee was adjourned.]

Appendix:

Additional Material for the Record

I

109TH CONGRESS
1ST SESSION

H. R. 798

To provide for a research program for remediation of closed methamphetamine production laboratories, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 15, 2005

Mr. GORDON (for himself, Mr. CALVERT, Mr. BOEHLERT, Mr. DAVIS of Tennessee, Mr. JENKINS, Ms. WOOLSEY, Mr. COOPER, Mr. CASE, Mr. ETHERIDGE, Mr. BAIRD, Mr. WU, Mr. LARSEN of Washington, Mr. MATHESON, Mr. BOSWELL, Mr. LATHAM, Mr. COSTELLO, Mr. MCINTYRE, Mr. UDALL of Colorado, Mr. CRAMER, Ms. BORDALLO, Mr. MELANCON, Mr. AL GREEN of Texas, Mr. CARNAHAN, Ms. EDDIE BERNICE JOHNSON of Texas, and Mr. SOUDER) introduced the following bill; which was referred to the Committee on Science

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A BILL

To provide for a research program for remediation of closed methamphetamine production laboratories, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Methamphetamine Remediation Research Act of 2005".

SEC. 2. FINDINGS.

The Congress finds the following:

1 (1) Methamphetamine use and production is
2 growing rapidly throughout the United States.
3 (2) Materials and residues remaining from the
4 production of methamphetamine pose novel environ-
5 mental problems in locations where methamphet-
6 amine laboratories have been closed.
7 (3) There has been little standardization of
8 measures for determining when the site of a closed
9 methamphetamine laboratory has been successfully
10 remediated.
11 (4) Initial cleanup actions are generally limited
12 to removal of hazardous substances and contami-
13 nated materials that pose an immediate threat to
14 public health or the environment. It is not uncom-
15 mon for significant levels of contamination to be
16 found throughout residential structures after a
17 methamphetamine laboratory has closed, partially
18 because of a lack of knowledge of how to achieve an
19 effective cleanup.
20 (5) Data on methamphetamine laboratory-re-
21 lated contaminants of concern are very limited, and
22 cleanup standards do not currently exist. In addi-
23 tion, procedures for sampling and analysis of con-
24 taminants need to be researched and developed.

1 (6) Many States are struggling with estab-
2 lishing remediation guidelines and programs to ad-
3 dress the rapidly expanding number of methamphet-
4 amine laboratories being closed each year.

5 **SEC. 3. VOLUNTARY GUIDELINES.**

6 (a) ESTABLISHMENT OF VOLUNTARY GUIDELINES.—
7 Not later than one year after the date of enactment of
8 this Act, the Assistant Administrator for Research and
9 Development of the Environmental Protection Agency (in
10 this Act referred to as the "Assistant Administrator"), in
11 consultation with the National Institute of Standards and
12 Technology, shall establish voluntary guidelines, based on
13 the best currently available scientific knowledge, for the
14 remediation of former methamphetamine laboratories, in-
15 cluding guidelines regarding preliminary site assessment
16 and the remediation of residual contaminants.

17 (b) CONSIDERATIONS.—In developing the voluntary
18 guidelines under subsection (a), the Assistant Adminis-
19 trator shall consider, at a minimum—

20 (1) relevant standards, guidelines, and require-
21 ments found in Federal, State, and local laws and
22 regulations;

23 (2) the varying types and locations of former
24 methamphetamine laboratories; and

1 (3) the expected cost of carrying out any pro-
2 posed guidelines.
3 (c) STATES.—The voluntary guidelines should be de-
4 signed to assist State and local governments in the devel-
5 opment and the implementation of legislation and other
6 policies to apply state-of-the-art knowledge and research
7 results to the remediation of former methamphetamine
8 laboratories. The Assistant Administrator shall work with
9 State and local governments and other relevant non-Fed-
10 eral agencies and organizations, including through the
11 conference described in section 5, to promote and encour-
12 age the appropriate adoption of the voluntary guidelines.
13 (d) UPDATING THE GUIDELINES.—The Assistant
14 Administrator shall periodically update the voluntary
15 guidelines as the Assistant Administrator, in consultation
16 with States and other interested parties, determines to be
17 necessary and appropriate to incorporate research findings
18 and other new knowledge.
19 **SEC. 4. RESEARCH PROGRAM.**
20 The Assistant Administrator shall establish a pro-
21 gram of research to support the development and revision
22 of the voluntary guidelines described in section 3. Such
23 research shall—
24 (1) identify methamphetamine laboratory-re-
25 lated chemicals of concern;

1 (2) assess the types and levels of exposure to
2 chemicals of concern identified under paragraph (1),
3 including routine and accidental exposures, that may
4 present a significant risk of adverse biological ef-
5 fects, and the research necessary to better address
6 biological effects and to minimize adverse human ex-
7 posures;
8 (3) evaluate the performance of various meth-
9 amphetamine laboratory cleanup and remediation
10 techniques; and
11 (4) support other research priorities identified
12 by the Assistant Administrator in consultation with
13 States and other interested parties.

14 **SEC. 5. TECHNOLOGY TRANSFER CONFERENCE.**

15 (a) CONFERENCE.—Not later than 90 days after the
16 date of enactment of this Act, and at least every third
17 year thereafter, the Assistant Administrator shall convene
18 a conference of appropriate State agencies, as well as indi-
19 viduals or organizations involved in research and other ac-
20 tivities directly related to the environmental, or biological
21 impacts of former methamphetamine laboratories. The
22 conference should be a forum for the Assistant Adminis-
23 trator to provide information on the guidelines developed
24 under section 3 and on the latest findings from the re-
25 search program described in section 4, and for the non-

1 Federal participants to provide information on the prob-
2 lems and needs of States and localities and their experi-
3 ence with guidelines developed under section 3.

4 (b) REPORT.—Not later than 3 months after each
5 conference, the Assistant Administrator shall submit a re-
6 port to the Congress that summarizes the proceedings of
7 the conference, including a summary of any recommenda-
8 tions or concerns raised by the non-Federal participants
9 and how the Assistant Administrator intends to respond
10 to them. The report shall also be made widely available
11 to the general public.

12 **SEC. 6. RESIDUAL EFFECTS STUDY.**

13 (a) STUDY.—Not later than 6 months after the date
14 of enactment of this Act, the Assistant Administrator shall
15 enter into an arrangement with the National Academy of
16 Sciences for a study of the status and quality of research
17 on the residual effects of methamphetamine laboratories.
18 The study shall identify research gaps and recommend an
19 agenda for the research program described in section 4.
20 The study shall pay particular attention to the need for
21 research on the impacts of methamphetamine laboratories
22 on—

23 (1) the residents of buildings where such lab-
24 oratories are, or were, located, with particular em-
25 phasis given to biological impacts on children; and

1 (2) first responders.

2 (b) REPORT.—Not later than 3 months after the
3 completion of the study, the Assistant Administrator shall
4 transmit to Congress a report on how the Assistant Ad-
5 ministrator will use the results of the study to carry out
6 the activities described in sections 3 and 4.

7 **SEC. 7. METHAMPHETAMINE DETECTION RESEARCH AND**
8 **DEVELOPMENT PROGRAM.**

9 The Director of National Institute of Standards and
10 Technology, in consultation with the Assistant Adminis-
11 trator, shall support a research program to develop—

12 (1) new methamphetamine detection tech-
13 nologies, with emphasis on field test kits and site de-
14 tection; and

15 (2) appropriate standard reference materials
16 and validation procedures for methamphetamine de-
17 tection testing.

18 **SEC. 8. SAVINGS CLAUSE.**

19 Nothing in this Act shall be construed to add to or
20 limit the regulatory authority of the Environmental Pro-
21 tection Agency.

22 **SEC. 9. AUTHORIZATION OF APPROPRIATIONS.**

23 (a) ENVIRONMENTAL PROTECTION AGENCY.—There
24 are authorized to be appropriated to the Environmental

1 Protection Agency to carry out this Act $3,000,000 for
2 each of the fiscal years 2006 through 2009.
3 (b) NATIONAL INSTITUTE OF STANDARDS AND
4 TECHNOLOGY.—There are authorized to be appropriated
5 to the National Institute of Standards and Technology to
6 carry out this Act $1,500,000 for each of the fiscal years
7 2006 through 2009.

○

SECTION-BY-SECTION ANALYSIS OF H.R. 798,
METHAMPHETAMINE REMEDIATION RESEARCH ACT OF 2005

Section 1. Short title.

The Methamphetamine Remediation Research Act of 2005

Section 2. Findings.

Section 3. Voluntary Guidelines. Requires the Assistant Administrator for Research and Development at the EPA (EPA), in consultation with the National Institute of Standards and Technology (NIST), to establish within one year voluntary guidelines for the remediation of former methamphetamine labs, including preliminary site assessments and the remediation of residual contaminants.

Requires the Assistant Administrator to consider relevant standards, guidelines and requirements in federal, State and local laws and regulations, the varying types and locations of former methamphetamine labs, and the expected cost of carrying out any proposed guidelines in developing the guidelines.

States that the voluntary guidelines are to be used to assist State and local governments in the development and implementation of legislation and other policies to apply state-of-the-art knowledge to the remediation of former labs. Requires the Assistant Administrator to work with State and local governments and other relevant nonfederal agencies and organizations, including through the conference in section 5, to promote and encourage the appropriate adoption of the voluntary guidelines.

Requires the Assistant Administrator to periodically update the voluntary guidelines, in consultation with states and other interested parties, as necessary and appropriate to incorporate research findings and other new knowledge.

Section 4. Research Program.

Requires the Assistant Administrator to establish a program of research to support the development and revision of the voluntary guidelines in section 3. Requires research to identify methamphetamine laboratory-related chemicals of concern, assess the types and levels of exposure to chemicals of concern that may present a significant risk of adverse biological effects, better address biological effects and minimize adverse human exposures, evaluate the performance of various methamphetamine laboratory cleanup and remediation techniques, and support other priorities, identified by the Assistant Administrator in consultation with states and others.

Section 5. Technology Transfer Conference.

Requires the Assistant Administrator to convene within 90 days and every third year thereafter a conference of State agencies and other individuals and organizations involved with the impacts of former methamphetamine laboratories. States that the conference should be a forum for the Assistant Administrator to provide information on the voluntary guidelines and the latest findings of the research program as well as an opportunity for the non-federal participants to provide information on their problems, needs and experiences with the voluntary guidelines.

Requires the Assistant Administrator within three months to submit a report to Congress that summarizes the proceedings of the conference, including any recommendations or concern raised and a description of how the Assistant Administrator intends to respond to them. Requires the report to be made widely available to the general public.

Section 6. Residual Effects Study.

Requires the Assistant Administrator to enter into an arrangement with the National Academy of Science within six months to study the status and quality of research on the residual effects of methamphetamine laboratories. Requires the study to identify research gaps and recommend an agenda for the research program in section 4. Requires the study to focus on the need for research on the impact of methamphetamine laboratories on residents of buildings where labs are or where located, with particular emphasis on the biological effects on children and on first responders.

Section 7. Methamphetamine Detection Research and Development Program.

Requires the Director of NIST, in consultation with the Assistant Administrator, to support a research program to develop new methamphetamine detection technologies, with emphasis on field test kits and site detection and appropriate stand-

ard reference materials and validation procedures for methamphetamine detection testing.

Section 8. Savings Clause.

Provides that nothing in this Act shall be construed to change the regulatory authority of the EPA.

Section 9. Authorization of Appropriations.

Authorizes $3 million for each of fiscal years 2006 through 2009 for the EPA. Authorizes $1.5 million for each of fiscal years 2006 through 2009 for NIST.

PREPARED STATEMENT OF THE NATIONAL MULTI HOUSING COUNCIL/NATIONAL APARTMENT ASSOCIATION JOINT LEGISLATIVE PROGRAM

Chairman Boehlert, Ranking Member Gordon, and distinguished Members of the Science Committee, the National Multi Housing Council (NMHC) and the National Apartment Association (NAA) appreciate the opportunity to share the views of rental housing providers as the Committee considers the *Methamphetamine Remediation Research Act of 2005*. The National Multi Housing Council and the National Apartment Association represent the Nation's leading firms participating in the apartment industry and are committed to providing safe, affordable, and accessible home choices for the 21 percent of all households who live in apartment homes.

NMHC's membership includes the principal officers of the largest and most prominent apartment owners, developers, managers and lenders. NAA is the largest national federation of state and local apartment associations with 164 affiliates and 31,000 professionals who own and manage more than five million apartments. NMHC and NAA jointly operate a federal legislative program and provide a unified voice for the private apartment industry.

The manufacture of illicit methamphetamine (meth) in makeshift, clandestine laboratories is a growing concern throughout the United States. In the production process, manufacturers utilize various volatile and highly toxic chemicals, resulting in an acute risk of poisoning, fire and explosion. Moreover, these labs may pose a health and safety threat after drug production ceases, due to the presence of hazardous manufacturing byproducts and residual production chemicals, if cleanup has not been done properly.

Given the mobility and small size of illegal drug laboratories, they can be located on any type of property and pose considerable challenges for any property owner. However, they are particularly problematic when located in residential, rental properties. In addition to the risk of fire and explosion, the chemical residue left behind by these labs may present a hazard to residents. More research is necessary to evaluate the efficacy of remediation techniques for the indoor environment following its contamination with methamphetamine or the byproducts of its production.

There is a widespread understanding in the commercial real estate industry that an identified, illegal drug laboratory must be reported to the appropriate law enforcement authorities. Typically, law enforcement officials will confiscate or dispose of all drug-manufacturing equipment and chemicals found at the site, but after this bulk cleanup is completed, the property owners face the daunting task of dealing with any residual contamination. This is complicated by the fact that there are many unsettled questions regarding appropriate clean up and restoration of affected properties.

Property remediation standards are necessary.

Since there is a lack of consensus about how to proceed once the crime scene tape has come down, many property owners are questioning what, if any, additional cleanup needs to be done to safeguard the health and safety of their maintenance workers and residents. Recently, several states have enacted mandatory cleanup statutes; however, there are no federal guidelines or standards addressing remediation of meth-contaminated properties, and, with few exceptions, even the states with mandatory cleanup laws have failed to define levels of contamination and appropriate abatement methods. Those cleanup guidelines that do exist acknowledge that the residual health effects and safe contamination levels of meth-related chemicals are largely unknown, which means these standards are conservative and not directly related to scientific or medical findings.

The lack of scientific evidence or national property remediation standards has resulted in widely divergent state-required cleanup practices and requirements. Currently, "safe" meth contamination levels range from 0.5 $\mu g/ft^2$ to 0.05 $\mu g/100\ cm^2$. Additionally, some states' standards only address the residual methamphetamine level itself, while others establish acceptable levels for meth-related chemicals, such as mercury, lead, volatile organic chemicals and corrosives. Finally, some states require cleanup to be completed by a state licensed or otherwise certified remediation professional, while others do not.

This has created tremendous uncertainty and confusion for property owners trying to determine the best practices for successful decontamination as well as their responsibilities under these new and emerging laws. It has also subjected apartment owners and operators to malicious or negligent mistreatment by remediation contractors, who may recommend a variety of unproven, unnecessary or costly decontamination strategies.

We strongly support the provision of H.R. 798 that directs the U.S. Environmental Protection Agency to develop remediation guidelines in cooperation with the Na-

tional Institute of Standards and Technology. Since safe and technically sound guidelines are fundamental, we question, however, the notion that those guidelines should be voluntary, rather than mandatory. Mandatory guidelines could be revised in light of applicable technological developments.

Research on potential health effect of residual chemical exposure is necessary.

Given the disparities in cleanup protocols, property owners are also concerned about the potential liability associated with any residual contaminants. Accordingly, we strongly support the provision of H.R. 798 that directs the National Academy of Sciences to undertake a study to determine what is known regarding the potential health effects of contaminants resulting from methamphetamine laboratories.

Improved methods of detection are essential.

Property owners may not be aware that an illegal drug laboratory has operated on their property. Clandestine meth laboratories are highly mobile, and manufacturers are learning to hide the tell tale signs of meth production through various means, such as using new and reportedly, odorless processes. Since meth contamination may be imperceptible to the naked eye, there is an essential need for reliable rapid detection protocols. Although private vendors are currently marketing such tests, validation of these devices and improved accuracy of testing methods in general is currently an unmet need.

Health and safety concerns have motivated several states to enact notice and disclosure laws requiring full disclosure of a properties' use as a clandestine methamphetamine lab to all prospective buyers or residents. Typically, disclosure is only required while a property is in fact "contaminated." However, due to the uncertainties inherent in current decontamination practices, some states have enacted stricter laws requiring disclosure even after the property has been decontaminated. Requiring disclosure of contamination that has been appropriately remediated unfairly stigmatizes and devalues the property and will ultimately serve to exacerbate the existing shortage of affordable housing.

Therefore, it is necessary to develop cleanup guidelines and standardized decontamination practices for meth labs, and establish guidelines for the training and certification of decontamination professionals. This will protect property owners, residents, and remediation professionals by providing a clear foundation for the remediation of affected properties. This will also provide the public with much needed information about meth-related environmental exposures.

This legislation takes a crucial first step towards achieving this goal. Research is fundamental to the establishment of effective, health-based cleanup standards. It will provide insight regarding safe exposure levels to meth-related chemicals, appropriate testing methods, and decontamination safety and best practices. This information will aid property owners in their continued efforts to protect the health and safety of all residents, employees, and visitors.

In summary, NMHC/NAA support H.R. 798 because it (1) directs research to determine effective means of decommissioning meth labs on residential property, (2) requires federal authorities to establish threshold levels of contamination that protect the public health, and (3) funds the development of rapid detection methods so we can monitor our indoor environments. In addition, we support the certification of trained individuals to remediate meth labs. After following the guidance of these trained professionals in remediating the property, the property should be by definition "safe;" therefore, disclosure of the former presence of the illegal lab should not be required.

Thank you for your consideration of these points.

March 2, 2005

Honorable Sherwood L. Boehlert
Chairman
Committee on Science
2320 Rayburn HOB
Washington, DC 20515

Dear Mr. Chairman:

I am writing you this letter as the District Attorney of the Twenty-Eighth Judicial Circuit which covers Baldwin County in the State of Alabama.

I appreciate the opportunity to forward this letter involving the surge of methamphetamines which is sweeping the nation.

I have heard of horror stories all over the state and we are also experiencing some of them right here in Baldwin County.

It appears that approximately fifty percent of our drug cases are methamphetamines and that percentage is increasing. It has a disastrous effect upon the personality of those who are using the drug and its production is widespread and dangerous.

It places law enforcement at great risk entering any location where methamphetamines are made and the residue from the manufacture may create a hazard that is unknown to the resident. We are proud of our environmental progress in Baldwin County and it appears that the greatest hazardous waste may come from the production of methamphetamines.

The ability to produce it in such diverse and multiple locations creates a great dilemma for law enforcement especially small town police who maybe poorly equipped to handle this matter.

I know that great resources have been devoted for Homeland Securities purposes and I would hope that we would utilize some of these resources to assist in the battle of methamphetamines. It would allow us to practice a joint relationship between the federal government, state government and county and city governments when a hazardous situation existed. That would allow us to verify our procedures in case we did have a Homeland Security situation in which the deadly agent was placed in our community. The idea that there is no connection between crime and Homeland Security concepts is a battle over financial turf rather that practical law enforcement.

I know that monies are short but these agents are deadly and they threaten our community and they threaten our law enforcement officers as well.

I would urge Congress to continue to receive evidence concerning the scourge of methamphetamines and take certain legislative steps to make it more difficult to produce.

I appreciate you giving me this opportunity to make comments on this critical matter.

I remain,

Very truly yours,

John David Whetstone
District Attorney
Twenty-Eighth Judicial Circuit
State of Alabama