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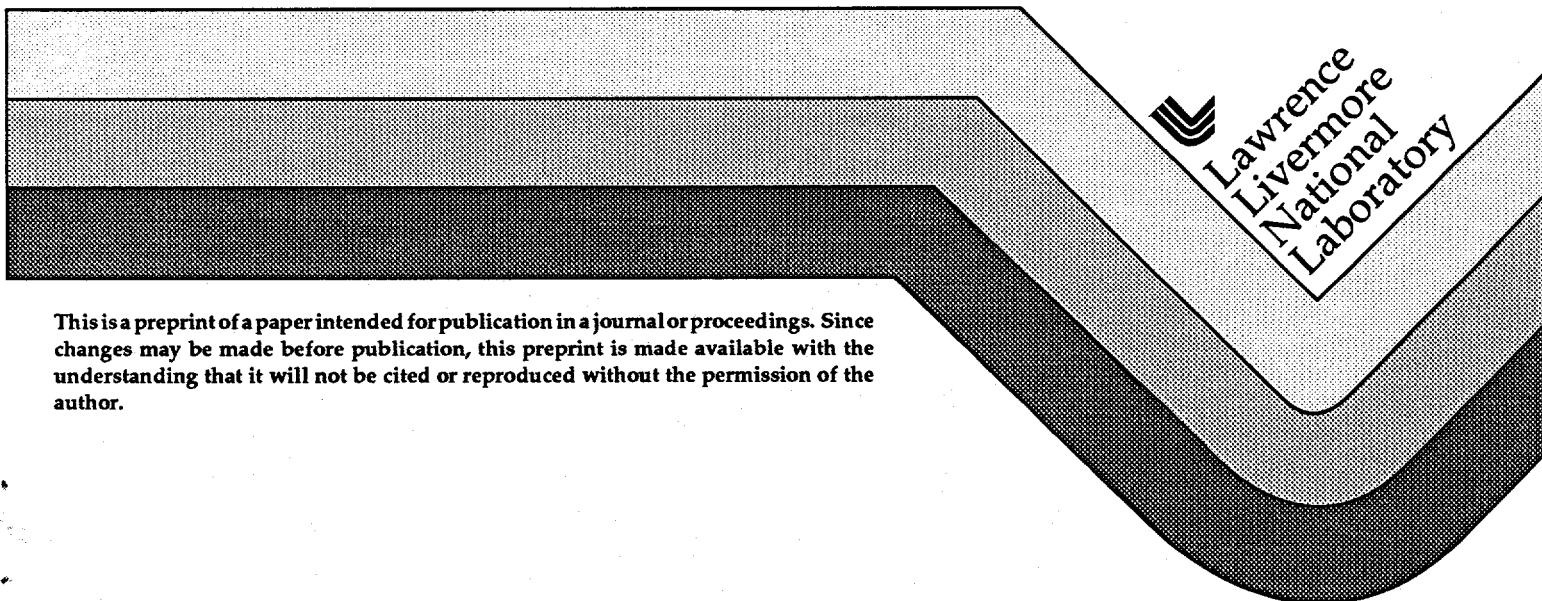
**Statement by Dr. Kathleen C. Bailey before the
Senate Armed Services Committee**

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Mr. Chairman, Members of the Committee, I am very pleased to appear before you today to address the Chemical Weapons Convention. I am Kathleen Bailey and currently am a senior fellow at Lawrence Livermore National Laboratory, having spent the majority of my professional career in the study of the proliferation of weapons of mass destruction. I have served the United States Government in the Arms Control and Disarmament Agency, the Department of State, and the US Information Agency. I was principal investigator for a Defense Nuclear Agency study on the means by which nations might cheat on the CWC, as well as one on how Iraq hid its weapons of mass destruction efforts. My remarks today represent my own views and do not necessarily represent those of the Lawrence Livermore National Laboratory, the University of California, or any agency of the United States Government.

There are three good reasons for not ratifying the Chemical Weapons Convention (CWC): it is not verifiable, is extremely costly, and is not in the national security interests of the United States. Today, I would like to focus my remarks on the latter issue, but before doing so I would note that there has been an extremely important shift in recent weeks on the issue of verifiability. Although critics of the treaty have long contended that it is unverifiable and that the high costs associated with the planned inspections are unjustifiable, treaty supporters have denied this. When Senate hearings began on the treaty last April, for example, Administration witnesses declared that the treaty is "effectively verifiable." But, CIA Director Woolsey recently clarified, "I cannot state that we have high confidence in our ability to detect noncompliance with this treaty, especially noncompliance on a small scale." Had this been admitted earlier, it could have derailed the treaty, and should do so now.

As the confidence level that the treaty can be verified has fallen, a new rationale appears to have developed. The idea seems to go like this: President Bush unilaterally gave up US chemical weapons, so we might as well try to rope as many other countries as possible into joining us.

Non-universality

But why did the United States decide to make a commitment to forswear chemical weapons, and is it likely that other nations will have the same motivation? The United States decided to forego chemical weapons not because they are ineffective on the battlefield, but because very old US chemical weapons are dangerous and expensive to maintain, and, for political reasons, are essentially unusable. Also, as US military leaders have testified, the United States concluded that it does not need chemical weapons because it has sufficient conventional might to do whatever it needs to do. It also has a nuclear arsenal, should the conventional capability fail.

But some countries—the very countries who are likely to be non-signatories and/or cheaters—do not have such problems with or qualms regarding chemical

weapons. Neither Libya nor North Korea, for example, are likely to face domestic opposition or scrutiny from an environmental protection agency. Nor are they likely to shrink for political reasons from a decision to use chemical weapons. These countries, in fact, are more likely to use chemical weapons because, unlike the United States, they do not have sufficient conventional or nuclear might to accomplish their goals.

Military Utility

The chemical weapons arsenals of opponents need not be large to constitute an extremely serious threat to US interests. There are credible scenarios in which only tens of tons of agent might be used with highly significant effect.

Imagine that Iraq had fired chemical rounds at camps in Saudi Arabia during the Desert Shield build-up. It could have resulted in melting the resolve of the coalition, perhaps even breaking it up. Or, imagine Iraq had sporadically fired a few chemical rounds during the start of Desert Storm. Even if only one out of every several rounds were chemical, it would likely result in forcing troops to suit up and remain in their protective gear.

Making the enemy don protective masks and clothing can be an end in itself; the objective need not be actual chemical casualties. It is well known that chemical gear is hot, causes claustrophobia, inhibits communication, limits sight, and can make execution of tasks difficult.

If chemical weapons have such military utility, why didn't Saddam Hussein use them against the coalition? After all, he had achieved many battlefield successes with chemicals against Iran. A very likely answer is that the US chemical deterrent, coupled with Secretary Cheney's refusal to rule out using chemical or nuclear weapons in retaliation, made Saddam hesitate.

Saddam Hussein—and other third world leaders as well—probably learned from the experience of Desert Storm that, to defeat the United States, one cannot hope to succeed with conventional weapons alone. In any future confrontation involving US troops against a leader like Saddam, it should be expected that he will use chemical weapons, if he has them, either to fulfill a military objective or to undermine US public support for intervention. Just because our own leaders do not view chemical weapons as usable or necessary does not mean that the leaders of other countries will view them similarly.

Deterrence

If other countries do acquire chemical weapons with the intent to use them against the United States or its allies, do we have an effective deterrent? To be effective, a deterrent must be viewed by the opponent as both credible and unbearable.

One problem with using conventional weapons to deter chemical use is that they are perceived as less terrible, and thus have less deterrent value. Another is that large-scale conventional retaliation may be stymied by logistical problems, time required, expense (in terms of lives lost as well as money), and use of effective countermeasures by the opponent. In fact, by threatening to use weapons of mass destruction against any US troops that may be sent to the region, proliferants can substantially reduce the likelihood that the United States will be willing to engage in conventional reprisal.

When the Bush Administration was preparing to announce its unilateral renunciation of chemical weapons, it was recognized that conventional force might not be effective in deterring chemical weapons use by others. A view held by some top officials was that the US nuclear deterrent would be relied upon.

There are serious problems with the notion of nuclear deterrence as well. The question of proportionality must be considered carefully, as must the implications of using nuclear weapons to deter anything but nuclear weapons. And, current US policy is to not use nuclear weapons against any nation that is a member of a nuclear nonproliferation treaty and is not in alliance with a nuclear weapon state. In short, the issue of how the United States should effectively deter chemical weapons has not been well addressed.

Defense

It is a given that countries can acquire chemical weapons (they are inexpensive and technologically easy) and can do so clandestinely. It is also very likely that some will do so because such weapons can be militarily effective. In such event, the US nuclear deterrent will almost certainly be politically unusable, there is no US chemical deterrent, and the conventional is questionable. In this case, the issue of US defensive capabilities become paramount.

There is need to greatly improve detection equipment as well as protective measures. If opponents develop more sophisticated chemical agents—as Russia reportedly has—current equipment may be useless. Yet, the resources available for improving defenses will likely decline if the CWC is ratified. This is because there is likely to be a false sense of security. It is difficult for the US public to support the notion that the United States would sign a treaty and then spend monies to defend against the weapons that treaty is supposed to eliminate. The thinking will be: "If there are no chemical weapons, why should we spend money to invest in defenses against them?"

If defenses are not improved, ultimately chemical weapons may appear even more attractive to users. They will know that the United States is poorly equipped and under-trained to respond in event of battlefield use of chemical weapons.

Conclusion

The CWC does not enhance US security. Nations will still be able to acquire chemical weapons readily, probably without detection. Some will be motivated to do so because they do not have the alternatives that the United States has (conventional and nuclear), and they know that chemical weapons have battlefield as well as political utility.

In fact, the CWC may have an adverse impact on US security in at least two ways:

- It is likely to result in reduced defenses against chemical use. After all, when hundreds of millions of dollars are being spent for "verification" of a ban, why should more money be spent on detection and protection? The fact is, the threat will remain, regardless of the CWC. Spending on defenses should be maintained, ban or no ban.
- It eliminates the option of a US chemical deterrent. While there may be no current need for these weapons in light of US conventional superiority, the situation could change. Until there has been a more thorough look at how the US will deter chemical use by others in the future, the unilateral renunciation of chemical weapons should not be cemented.

The bottom line is that the CWC will be a bad deal for US citizens. They will pay dearly for a verification scheme that won't work, and they will be less rather than more secure.

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