COMMENTARY

Nuclear Waste Poses Its Own 'Dirty' Threat

Jose Padilla's arrest alerts us to the danger of radioactive byproducts.

By MARSHALL DRUMMOND, Marshall Drummond, chancellor of the L.A. Community Colleges, served as a member of the National Academy of Sciences subcommittee on emerging technologies for radioactive waste management and disposal.

In an odd sort of way, Jose Padilla did the American public a favor by allegedly tinkering with a plot for a "dirty" bomb. Finally there is some public awareness of nuclear waste dangers.

The nuclear industry, born out of weapons research and propelled by the public's desire for advanced medical treatment, cheap domestic energy sources and the weapons jobs complex, grew rapidly in the 1960s, only to be almost stopped in the 1980s by anti-nuke activists and a growing group of fearful people saying "not in my backyard."

Lost on the public is the fact that over the last 30 years, literally tons of nuclear waste--most benign but some very nasty--have accumulated in thousands of temporary sites across the nation. Low-level waste--which is not fissionable, meaning it cannot cause a chain reaction or explosion--covers a vast array of material, including gowns and gloves used to work with radioactive material, X-ray film and medical isotopes.

It is difficult to dispose of and, because it is far more prevalent and generally less well secured, is the type of waste that is most likely to find its way into a dirty bomb.

Far nastier stuff is high-level waste. It mostly consists of spent reactor fuel, but the problem is that it is still "hot."

This fuel used to be reprocessed for additional use, but the byproducts often violated the Clean Air Act and the Clean Water Act, so old plants were shuttered and not many new ones were built.

The result is that spent fuel is stored on-site at nuclear energy plants. The good news is that security at these places is pretty good, and the spent fuel is so dangerous and difficult to handle that terrorists would need highly specialized training and equipment that is almost impossible to acquire.

Moreover, a terrorist who got his hands on this stuff at noon would be dead before sundown, and unless it was pulverized it would be fairly easy to retrieve.

This is not to make light of the threat because inhaling even a microscopic amount of high-level waste can induce fatal cancers.
Low-level nuclear waste is a problem to get rid of, but the more serious danger is posed by high-level waste.

The recent movement toward finally putting Yucca Mountain in Nevada into service for storage is long overdue.

The half-life of some of this waste is 5,000 years--meaning it is dangerous for close to 10,000 years. What if the weather changes and Nevada becomes a savanna? What if water seepage a thousand years from now lets a waste stream escape the confines? However, "what if" scenarios are small potatoes when contrasted with hundreds of temporary storage sites dispersed all over the country that are vulnerable to theft, poor inventory controls and tracking practices.

Getting high-level waste into a place where it can be protected and controlled and constantly inventoried is the first step to avoiding a disaster far more serious than one that could be caused by a dirty bomb. Even without a terrorist in the equation, there is the real possibility of mishandling or an accidental fission accident.

When it comes to all forms of nuclear waste, what can we do to safeguard our society?

Thanks to Padilla, the first steps in reducing the threat of a dirty bomb are underway. This involves recognizing and acknowledging the threat, heightening intelligence gathering, enforcing storage regulations and border surveillance and developing a plan in case of an emergency event.

As for high-level waste, it is extremely important that we as a nation take seriously our responsibility to deal with this material. This will require a strategy to eventually move a large amount of this material from temporary storage places to permanent secure storage.

Yucca Mountain has been built using billions of taxpayer dollars. It has been tested and is ready to do its job, yet the NIMBY’s and the anti-nuke crowd keep sowing seeds of doubt.

Padilla might have been enough to cause us all to stop, learn about the problem and deal with nuclear waste.

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