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US Nuclear Regulatory Com
ATTN: Rulemakings and Adjudications Staff
Secretary
Washington, DC 20555-0001

DOCKETED
USNRC
February 3, 2005 (11:53am)
OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Re: Protect Americans from a Nuclear Disaster

Dear US Nuclear Regulatory Com ATTN: Rulemakings and Adjudications Staf:

I am writing in support of the Petition for Rulemaking filed by the Committee to Bridge the Gap to the US Nuclear Regulatory Commission for "Upgrading the Design Basis Threat Regulations for Protection Against Terrorist Attacks on Nuclear Reactors" (posted in the Federal Register on November 8, 2004, Volume 69, Number 215).

If a nuclear plant's containment shell and reactor core, or spent fuel pools, are ever breached, a terrible explosion of radioactivity, on a par with the Chernobyl accident, would ensue. Millions of Americans would be placed in harm's way. Unfortunately, America's nuclear plants are highly vulnerable to attack. Fortunately, such a cataclysm is preventable.

Harvard professor and Clinton Administration arms control expert Graham Allison soberly discusses the problem of nuclear power plant vulnerabilities:

"The American Airlines flight that struck the North Tower of the World Trade Center could just as readily have hit the Indian Point nuclear power plant, forth miles north of Times Square...

The consequences of an attack on a nuclear plant would depend largely on where the plane hit. If the aircraft penetrated the containment dome, the attack could cause the reactor to melt down, releasing hundreds of millions of curies of radioactivity into the surrounding environment, hundreds of times that released by the Hiroshima and Nagasaki bombs. We already know what such an incident would look like. In April 1986, an accident explosion inside the Soviet nuclear reactor at Chernobyl ignited a powerful fire that raged for ten days. The resulting radiation forced the evacuation and resettlement of over 350,000 people and caused an estimated \$300 billion of economic damage, and is likely to lead ultimately to tens of thousands of excess cancer deaths among those exposed to the fallout."

An even more vulnerable target at a nuclear plant is the building that houses the spent fuel rods, which are stored in pools of water to prevent the heat from their residual radioactivity from melting them. Designed to remain intact in case of an earthquake, these structures are open to the air in some instances and housed in only light-duty buildings in others, which means that a plane attacking from above might drain the pool, destroy backup safety systems, and ignite the fuel. The resulting fire would spew radioactivity into the environment in amounts that could reach three or four Chernobyls.

I urgently request that the NRC upgrade the Design Basis Threat (DBT) for US nuclear power stations. The NRC must revise the DBT regulations to require the NRC and the nuclear power industry to contemplate and prepare for an attack of nuclear power stations by air by constructing shields consisting of (inexpensive and quick-to-assemble) steel I-beams and steel cabling. These would obstruct the angle of an air attack at stand-off distances from the reactor

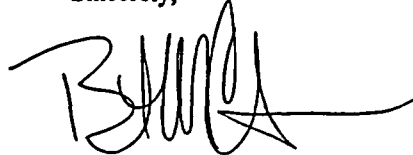
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building, fuel pool and other safety-related assets so that hijacked, rented or private aircraft (potentially carrying explosives) attempting to deliberately crash into a reactor site would be torn up in the "Beamhenge" shield, effectively reducing the impact and penetration force on safety-related structures. The shield effort is focused on reasonably reducing the public's risk of terrorists successfully using nuclear power stations for radiological-enhanced sabotage.

Please make Americans safer today by upgrading the Design Basis Threat for US nuclear power stations.

Sincerely,

A handwritten signature in black ink, appearing to read "Bret Carbone", with a long horizontal flourish extending to the right.

Bret Carbone