

## Celebrating Atoms for Peace

by Swanee Hunt, Scripps Howard News Service, October 26, 2005

This month, the International Atomic Energy Agency (IAEA) and Director General Mohamed ElBaradei won the Nobel Peace Prize for efforts to prevent the use of nuclear energy to build weapons, while advocating for its safe, peaceful applications. President Dwight D. Eisenhower coined the IAEA's credo, "Atoms for Peace," in a 1953 address to the United Nations in which he proposed the agency's creation. With this award, two issues associated with nuclear power emerge: security and the environment.

First, security. Einstein's Theory of Relativity,  $E=MC^2$ , may now be commonly known, but it took almost 35 years to prove. Soon after, scientists at the University of Chicago used it to launch us into an era of nuclear technological development when they built the world's first operational reactor. The nuclear age was born.

It was World War II, so no big surprise that the Manhattan Project used nuclear power to create massive weapons of war. The bombs destroyed Hiroshima and Nagasaki, leaving us with images of mushroom clouds and body counts in the hundreds of thousands.

But even in those days nuclear technology wasn't just about bombs. American scientists experimented with reactors for other uses. After the war, the US government created the Atomic Energy Commission to encourage but control peaceful development of nuclear energy. When Eisenhower gave his landmark UN address, the United States had the world's only nuclear reactor designed solely to generate electricity.

But there was trouble. The Soviets had their own nuclear projects, and Eisenhower feared that, as such technology spread worldwide, it was only a matter of time before it would be used once more to build weapons of mass destruction.

Such concerns still exist, despite agreements like the Nuclear Non-Proliferation Treaty, signed in 1968 by 45 countries committed to stopping the spread of this kind of warfare technology. Since then, almost 190 "member countries" have signed on, and it's the most adhered to arms control treaty in history. But

we still hear stories about countries like Iran and North Korea and fears of secret projects to build weapons. Just the word “nuclear” still incites panic.

But that’s not all. There’s also the security burden of building nuclear power plants. Terrorists might try to steal nuclear material for far-reaching radioactive “dirty bombs.” Although their impact might not be much higher than a traditional bomb, the terror and panic it would cause could be devastating.

Nuclear energy presents an environmental threat too. Its toxic waste needs to be securely stored—for thousands of years. Quite a problem when local governments fight against waste storage facilities in their communities, shouting “Not in my back yard.”

But there’s a whole other side of the story, one the IAEA tries hard to promote. Nuclear power doesn’t pollute our air or water and creates little waste relative to the amount of energy generated. Burning coal, our nation’s largest source of fuel, leads to global warming and acid rain. Petroleum has similar environmental hazards, not to mention additional risks in transporting crude oil. Who can forget the 1989 Exxon Valdez spill? The accident blanketed 1,300 miles of Alaska’s shoreline with 11 million gallons of crude oil—enough to fill 125 Olympic swimming pools.

Nuclear energy is also more efficient. A pellet of uranium the size of your fingertip can produce the same amount of energy as 149 gallons oil. With oil prices hitting record highs and the burning of fossil fuels wreaking havoc on the environment, it’s a good alternative.

Former IAEA Public Information Officer Valerie Gillen also points out, “Peaceful uses of nuclear energy touch everyone’s life. Every time you get an X-ray, an electrocardiogram, or an MRI at the doctor’s office, nuclear energy is in use. Every time you hear about the tsetse fly’s deadly bite, remember that nuclear energy is used to eradicate them. ” When you put it that way, where would we be without it?

There’s no perfect solution—at least not yet. But the IAEA and its leader, Mohamed ElBaradei, make the world safer for us all. The Nobel Foundation has made a wise choice. Every day the IAEA works to protect us from the threat of nuclear weapons, while promoting peaceful new ways to use the technology to our benefit. When they officially accept the Nobel Prize in December, may we all raise a glass in their honor.