4. **NUCLEAR CRISIS: Radiation fears spur U.S. sales of potassium iodide pills** *(Greenwire, 03/15/2011)*

Hannah Northey, E&E reporter

U.S. manufacturers of potassium iodide pills are reporting "overwhelming demand" and some temporary shortages, even though federal regulators say radiation from Japan's crippled Fukushima Daiichi nuclear plant is not expected to reach America.

Virginia-based Anbex Inc. reported yesterday it was out of potassium iodide pills until mid-April. A common form of salt, the compound is one of three FDA-approved drugs that block human and animal thyroid glands from absorbing excessive amounts of radiation. The U.S.-based arm of Swedish company Recipharm AB, which produces the potassium iodide ThyroSafe tablets, also is reporting "overwhelming need" and has temporarily shut down its online sales orders.

The Nuclear Regulatory Commission, which works with the Energy Department and other agencies to monitor radioactive releases and predict their path, said on Sunday that "all the available information" indicates small releases from the Fukushima reactors were being blown out to sea. Given the distance between Japan and Hawaii, Alaska, the U.S. territories and the West Coast, NRC said those regions were not expected to experience any harmful levels of radioactivity.

The International Atomic Energy Agency (IAEA) said Fukushima Daiichi's Unit 2 experienced an explosion yesterday that may have damaged the containment vessel, on the heels of explosions at Units 1 and 3. The agency also reported a fire at Unit 4.

The Japanese government is evacuating residents within a 20-kilometer zone around the plant, and advising people within 30 kilometers to take shelter indoors. The government also is distributing iodine tablets, according to the IAEA, and a 30-kilometer no-fly zone has been established around the plant.

The NRC is ramping up its own efforts, saying yesterday it was sending more of its officials to Japan to help the Fukushima Daiichi plant operators cool the reactors, as well as offering shelter, potassium iodide, staffing and equipment for victims of the earthquake and tsunami.

Meanwhile, attention in the United States has turned to increased scrutiny of the country's nuclear fleet and how to protect Americans in the event of such a crisis, including the purchase and distribution of potassium iodide.

California health officials issued a statement on their website informing the public that taking potassium iodide pills is not recommended at this time, since the NRC said Japan's nuclear crisis presents no danger to the state.

But Rep. Edward Markey (D-Mass.) is once again pushing the federal government to distribute potassium iodide to people within a 20-mile radius of a nuclear power plant.

The NRC currently requires states with populations within the 10-mile emergency planning zone of a commercial nuclear reactor to considering dispensing potassium iodide as a protective measure along with evacuations and shelter provisions.

Markey says members of the Obama administration have rebuffed his requests, despite repeated letters.

**Potassium iodide**

The Food and Drug Administration (FDA) issued a final guidance on potassium iodide in 2001 to inform decisions by regulatory agencies, including the NRC and state and local governments, on the safety of the pills. That same year, the NRC implemented its 10-mile rule.
FDA found, based on studies following the 1986 nuclear meltdown in Chernobyl, that potassium iodide effectively blocks the thyroid from taking up radioiodine, and its use will "be effective in reducing the risk of thyroid cancer in individuals or populations at risk for inhalation or ingestion of radioiodines."

The FDA said short-term administration of the drug is safe, but could include side effects of salivary gland inflammation, gastrointestinal disturbances, allergic reactions and minor rashes. The agency also said people with iodine sensitivity should not take the drug.

The agency spelled out that the pills are effective for 24 hours at a time, and that risk of inhaled radioiodines at the "time of the emergency" depends on the magnitude of the release, wind direction and other atmospheric conditions, and "thus may affect people both near to and far from the accident site."

The pills do not guard against the body's uptake of other radioactive materials, the FDA said, provide no protection against "external irradiation of any kind" and should be used in conjunction with evacuation plans, shelters and control of foodstuffs.

The FDA is now directing the public to buy potassium iodide from a handful of companies, including Anbex, Recipharm, and Fleming & Co. Pharmaceuticals.

According to NRC documents, the shelf life for 130-milligram potassium iodide pills is seven years, and the 65-milligram tablets have a shelf life of six years.

Markey has raised concerns that the drug should be distributed to a larger number of inhabitants surrounding U.S. nuclear facilities.

Markey sponsored legislation that became law in 2002 making potassium iodide (KI) available to state and local governments within a 20-mile radius of nuclear reactors.

But the George W. Bush and Obama administrations decided against implementing the law, Markey said, and are "denying communities access to stockpiles of" potassium iodide. Markey sent a letter yesterday to John Holdren, the president's director of the Office of Science and Technology Policy, asking the administration to implement the amended Public Health Security and Bioterrorism Preparedness and Response Act of 2002.

"Japan reportedly is now distributing KI to its citizens," Markey wrote. "We should not wait for a catastrophic accident at or a terrorist attack on a nuclear reactor in this country to occur to implement this common-sense emergency preparedness measure."