

Problems with the Proposed Food Irradiation Facility in Bucks County

Irradiation facilities threaten environmental and worker safety.

- Since the 1960s, dozens of accidents have been reported at irradiation facilities. For example, radioactive water has been flushed into the public sewer system, radiation has leaked from facilities, facilities have caught fire, groundwater has been contaminated, and workers have been injured or lost their lives. (more details on reverse side)
- Facilities aren't always held financially accountable for cleaning up their messes. In fact, in several cases, post-accident cleaning efforts have been funded with taxpayer money.

Both companies involved are novices in the irradiation business.

- GrayStar's previous irradiator designs failed to get approval from federal regulators. The irradiator in the proposed Bucks County facility will be their first to operate commercially.
- CFC Logistics has never operated an irradiation facility.

The Cobalt 60 and the site itself could be utilized for their "dirty bomb" potential.

- Each irradiator contains 1 million curies of Cobalt 60. Four irradiators are planned for the facility.
- Individuals with access to irradiators and individuals making deliveries to irradiation facilities are not currently required by NRC to undergo criminal or security checks.
- The NRC has never conducted or funded studies on the public health, safety, and environmental risks of a terrorist attack on an irradiation facility.
- The Federation of American Scientists modeled the detonation of a foot-long rod of Cobalt obtained from a food irradiation plant, and found that it would result in the contamination of 1000 square kilometers, with a 10% risk of death from cancer for residents living inside a 300 city block area for 40 years following the detonation.

Irradiation masks conditions in slaughterhouses and exacerbates factory farm problems.

- Though it destroys food-borne pathogens, it does nothing to remove the carriers of these pathogens - the fecal matter and other contaminants found in many meatpacking plants.
- It perpetuates the filthy and environmentally damaging conditions of massive factory farms, where thousands of animals are crowded together, given antibiotics and hormones, and covered in their own excrement. This situation releases hazardous gases that degrade air quality, lowers neighboring property values, and pollutes water.

Irradiation disrupts the chemical composition of food and creates unique chemicals.

- Research dating to the 1950s has documented problems in laboratory animals that ate irradiated food including premature death, cancer, stillbirths and genetic damage.
- Recent research has found that 2-ACBs promote cancer development and cause cellular damage in rats, and cause genetic and cellular damage to human cells. Scientists have warned that further research is necessary to assess the potential hazards to people who eat irradiated foods.



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Examples of Accidents at Gamma Ray Food Irradiation Facilities

Dover, New Jersey

In June 1986, two senior executives of Palo Alto, CA-based International Neutronics were indicted on federal charges of conspiracy, mail fraud and wire fraud in connection with an October 1982 spill of 600 gallons of water contaminated by radioactive cobalt-60. After a pump malfunctioned, workers were instructed to pour the radioactive water down a shower drain that emptied into the public sewer system. Workers were also ordered to wear their radiation detection "badges" in such a way to falsify radiation levels. In the words of a federal prosecutor, company executives "bamboozled" Nuclear Regulatory Commission (NRC) inspectors by delaying an inspection of the facility, where food, gems, chemicals and medical supplies were irradiated. A \$2 million cleanup included the cost to dispose of radioactive material at a nuclear waste dump in South Carolina. Company vice president Eugene O'Sullivan, a former member of the U.S. Atomic Energy Commission, was convicted of conspiracy and fraud in October 1986.

Honolulu, Hawaii

In 1979, decontamination began at the state-run Hawaiian Developmental Irradiator at Fort Armstrong where, years earlier, radioactive water leaked onto the roof and the front lawn. Nearly 100,000 pounds of steel, 250 cubic feet of concrete and 1,100 cubic feet of soil were removed and taken to the nuclear waste dump in Hanford, Wash. The plant was shut down in 1980 and the remaining cobalt-60 was shipped to the University of Hawaii. Hawaii taxpayers paid most of the \$500,000 cleanup.

Parsippany, New Jersey

In June 1974, William McKimm, the radiation director at an Isomedix cobalt-60 facility, was exposed to a near-fatal dose of 400 rems while irradiating medical supplies. McKimm was critically injured and hospitalized for a month. Two years later, a fire near the cobalt storage pool released chemicals into the pool that caused the cobalt rods to corrode and leak. Radioactive water was then flushed down the toilet into the public sewer system. Eventually, concrete around the cobalt-60

pool, as well as the toilet and bathroom plumbing, was found to be radioactive and taken to a nuclear waste dump. The amount of radiation released into the public sewer system was never determined.

Rockaway, New Jersey

In 1977, Michael Pierson was exposed to a near-fatal dose of 150-300 rems at a Radiation Technology facility when a system designed to protect workers from radioactive cobalt-60 failed. In 1986, the NRC cited company executives for intentionally disabling the system. In 1988 - after more than 30 NRC violations, including one for throwing out radioactive garbage with the trash -- company president Martin Welt and nuclear engineer William Jouris were charged in federal court with 11 counts of conspiracy to defraud the NRC, making false statements and violating the Atomic Energy Act. Welt, who threatened to fire workers who didn't lie to NRC investigators, was also charged with obstruction of justice. Both men were convicted. Jouris was sentenced to probation; Welt was sentenced to two years in prison, placed on three years probation and fined \$50,000.

Fatalities in Other Countries

- ◆ In February 1989, three El Salvadoran workers suffered serious burns and radiation sickness when they were exposed to cobalt-60. None had received formal training to operate the equipment, which was made by Atomic Energy of Canada Limited. Eventually, one worker died and the others had their legs amputated.
- ◆ In 1975, an Italian worker was exposed to cobalt-60 when he bypassed all safety controls, climbed onto a conveyor belt and entered the irradiation chamber. He died 12 days later.
- ◆ In 1982, a Norwegian worker received a 1,000-rem cobalt-60 dose while trying to fix a jammed conveyor belt. He died 13 days later.
- ◆ In 1990, an Israeli worker was exposed to cobalt-60 after an alarm failed. He died 36 days later.
- ◆ In 1991, a worker in Belarus was exposed to cobalt-60 after several safety features were circumvented. He died 113 days later.