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Joan Claybrook, President

October 28, 2003

Mr. Thomas G. Day, Vice President
Engineering
United States Postal Service
8403 Lee Highway, 4th Floor
Merrifield, VA 22082

Dear Mr. Day:

On behalf of the consumer group Public Citizen and its 150,000 members nationwide, I am writing to you concerning misleading statements that you and others at the United States Postal Service (USPS) have made and continue to make concerning the efficacy, safety and prevalence of irradiation as a sanitization technology. In addition, we have a number of questions regarding the proposal by the USPS to build a mail irradiation facility on the site of the mail processing facility located on Brentwood Road in the District of Columbia.

We understand the predicament in which you find yourself. The anthrax attack that occurred in the fall of 2001 and the recent case that involved the mailing of the biotoxin ricin in South Carolina were despicable acts. USPS needs to explore all measures to protect its employees and the public from such criminal activity. We, here, at Public Citizen were directly affected by the 2001 incident -- two of our employees visited the Bulk Mail platform at the USPS Brentwood Processing and Distribution Center (now known as the Curseen-Morris Processing Center) in October 2001 as USPS continued to process mail after it was discovered that the anthrax-laden letters addressed to Senators Daschle and Leahy passed through that postal facility. Our employees were advised to take the antibiotic ciprofloxacin hydrochloride by USPS staff and their personal physicians as a precaution against contracting inhalation anthrax.

We have spent four years researching and evaluating the effectiveness and safety of irradiation as an intervention to treat foods. We fear that this technology will be used by the food processing industry as a substitute for investing in good sanitary practices. Furthermore, there is emerging research that indicates that irradiation produces harmful chemicals in certain foods. That is why

we are concerned about some of the generalizations about irradiation that appear in official USPS communications and in testimony before Congress.

Most recently, on October 23, 2003, you testified before the House Government Reform Committee to discuss the steps taken by USPS to reopen the Curseen-Morris Processing Center. In part of your remarks, you briefly touched on the proposal to build a mail irradiation facility on that property. You described irradiation as a safe and proven technology that has been used over the past fifty years in food processing and in other industrial applications. You left the impression that the practice is widespread and commonplace.

These are the facts as they apply to irradiation in the food industry:

- Not all foods have been approved by the Food and Drug Administration (FDA) and the United States Department of Agriculture (USDA) for treatment by ionizing irradiation. In fact, it is still a very “young” industry as the irradiation of poultry was approved in 1990 and the approval for the irradiation of red meat did not occur until 2000. Some foods react adversely to the irradiation process;
- Even with these approvals, the amount of food that is actually irradiated remains quite small in the United States. In recent remarks delivered by USDA’s Under Secretary for Food Safety, Dr. Elsa Murano stated: “To date, four facilities are irradiating meat and poultry for commercial purposes in the United States. We estimate that approximately 3 to 5 percent of the nation's ground beef supply and less than one percent of the nation's poultry supply is irradiated.”¹ Consumer acceptance remains quite low.
- There is emerging research from Europe that indicates that the irradiation of foods with a high fat content may cause new harmful chemicals to be formed that may promote tumor growth.²

As you well know, the use of this technology to treat the mail was not attempted until the USPS started to do it in 2001 as a response to the anthrax-contaminated mail at Curseen-Morris and on Capitol Hill. Mail irradiation has not been without its problems, including:

- Damage occurring to the mail during the irradiation process;³
- Employees becoming ill from handling irradiated mail;⁴
- Delays caused by the irradiation machinery breaking down.⁵

¹ Murano, Elsa. “Food Safety and Irradiation in the United States,” remarks delivered before the International Consultative Group on Food Irradiation, Geneva, Switzerland, October 7, 2003.

² Burnouf, D., Delincée, H., Hartwig, A., Marchioni, E., Miesch, L., Raul, F., Werner, D. (2002) Etude toxicologique transfrontalière destinée à évaluer le risque encouru lors de la consommation d'aliments gras ionisés / Toxikologische Untersuchung zur Risikobewertung beim Verzehr von bestrahlten fetthaltigen Lebensmitteln. Eine französisch-deutsche Studie im Grenzraum Oberrhein. Rapport final / Schlussbericht INTERREG II.Projet / Projekt No. 3.171. (Marchioni, E., Delincée, H., Eds.) Berichte der Bundesforschungsanstalt für Ernährung, Karlsruhe, BFE-R--02-02, pp. 1-198. (also available at the web: <http://www.bfa-ernaehrung.de/Bfe-Deutsch/Information/bfeber91.htm>)

³ Wilie, Dana. “Anti-anthrax Sanitization Fries Mail to Crispy Mess, Lawmakers Discover,” Copley News Service, January 8, 2002.

⁴ Gamerman, Ellen. “Hill Workers Feel Irritated by Irradiated Envelopes,” Baltimore Sun, February 20, 2002. see also Green, G., Lenov, M., Polydor, C., Mallinger, S. “Investigation of the Health Effects of Irradiated Mail,” Office of General Counsel, Office of Compliance, July 2, 2002.

Moreover, the USPS purchased eight irradiation machines from the Titan Corporation and its affiliated company, the SureBeam Corporation, in late 2001 at a cost of \$40 million through a no-bid, non-competitive contract.⁶ It is our understanding that these machines have never been installed anywhere in any postal facility and there is no intent to do so because it was discovered that the machines will not work to treat mail – they are underpowered.

Consequently, while there may be fifty years of experience using this technology, it is still not used routinely in our society and it is still not without its problems and shortcomings.

The Proposed Mail Irradiation Facility at Curseen-Morris

It is our understanding that you are proposing to use e-beam and/or x-ray technology at the mail irradiation facility to be built at Curseen-Morris. We have a number of concerns about this technology.

Some forms of irradiation — including electron beams — result in the formation of ozone, a highly reactive form of oxygen that Occupational Safety and Health Administration regulations mandate must be vented when it reaches a certain level inside buildings. Ozone has been associated with numerous health problems, such as aggravating asthma, reducing lung capacity and causing various respiratory problems.⁷

An excerpt from the draft Safety Manual for USDA meat inspectors who work around irradiation equipment underscores the potential problem:

A major by-product of irradiation is ozone, a highly oxidative molecule. Gamma rays or electrons ionize the oxygen molecules in the air that combine to form ozone. This ozone must be removed from the irradiation chamber to prevent its migration out of the maze to the product handling area where people can be exposed. The ozone must be removed by an air evacuation system that draws outside air into the irradiation chamber and exhausts that air to the outside. In order to comply with environmental regulations, large volumes of air are needed to dilute the ozone to permissible levels. To prevent any ozone from moving back through the maze to the product handling area and exposing workers, air handling systems must be designed such that some of the exhausted air comes from the product handling area through the transport maze. Additionally, the concern about ozone extends into operating procedures in that after the irradiation source has returned to a safe condition when operations have stopped, worker access to the irradiation chamber is delayed for several minutes to ensure that all of the ozone is evacuated before the workers enter the area.⁸

⁵ “Please Mr. Postman,” Roll Call, May 12, 2003; and “Snail Mail,” Roll Call, July 28, 2003.

⁶ United States Postal Service. Letter from Robert J. Faruq, Sr. to Wenonah Hauter, December 17, 2001.

⁷ American Lung Association, “State of the Air 2002 Report: The Health Effects of Ozone,” see <http://www.lungusa.org/air2001/effects02.html>.

⁸ Draft computer based training outline for USDA meat inspectors from March 3, 2000, p. 30.

Not only is ozone formation a problem for those working within an irradiation facility, it can pose serious health problems for those who reside near such a plant. To protect workers on the inside of the facility, excess ozone must be pumped out into the surrounding neighborhoods. The Baltimore/Washington region experiences some of the most severe ozone episodes in the northeastern United States.⁹ Building this facility within this region will only exacerbate an already serious problem. As you well know, the Environmental Protection Agency (EPA) has already tightened ozone standards within this area;¹⁰ a mail irradiation facility will only make it that much harder for the District of Columbia to achieve EPA ground-level ozone reduction goals.

Additionally, elaborate shielding equipment must be installed inside irradiation facilities to protect workers from radiation exposure. This is an expensive proposition and could involve new construction, but it is critical to protect workers, especially in light of numerous injuries throughout the U.S. and fatalities abroad at irradiation facilities.¹¹

Workers will have to be trained to operate this equipment. They will also have to wear a device, known as a dosimeter, that measures the amount of radiation these workers are exposed to while on duty, just like workers in nuclear power plants and X-ray technicians.

Questions

We have some lingering questions regarding mail irradiation that we believe need to be answered before a mail irradiation facility is constructed on the Curseen-Morris property.

- 1) What will happen to the eight irradiation machines that the USPS purchased from Titan and SureBeam in 2001? If those machines are not used, what technology will the USPS be using, and why?
- 2) Will no-bid, non-competitive contracts be awarded for the irradiation equipment purchased for the Curseen-Morris irradiation facility?
- 3) When the USPS began its mail irradiation program in 2001, mail was being irradiated at 56 kGy of radiation because you stated that was the dose needed to kill the strain of anthrax found in the Daschle and Leahy letters.¹² Is that level of irradiation still being used on the mail? If the level has been reduced, is it effective to destroy the most potent biotoxins that could be sent through the mail?
- 4) Have all of the health problems experienced by USPS employees and customers in 2001 and 2002 been mitigated? If the health problems have been mitigated, is it due to a reduction of radiation at which the mail is being exposed?
- 5) Is mail still being damaged by the irradiation process? If it is, at what rate does this occur?

⁹ Maryland Department of the Environment. Ozone Pollution Map, see http://www.mde.state.md.us/Air/air_quality/OzoneMap/index.asp.

¹⁰ U.S. Environmental Protection Agency. "EPA to Reclassify Washington, D.C. Nonattainment for Ground Level Ozone from Serious to Severe," press release, November 13, 2002.

¹¹ See <http://www.citizen.org/documents/accidentsfactsheet.pdf>

¹² American Industrial Hygiene Association. "Update on Irradiated Mail – AIHA's Perspective, see <http://www.aiha.org/GovernmentAffairs-PR/html/prirradiatedmail.htm>.

- 6) How many breakdowns have occurred in the irradiation equipment used by the contractor USPS has retained to irradiate the mail? What have been the lengths of the delays in processing caused by these malfunctions?
- 7) What impact does irradiation have on the recyclability of paper that has gone through this process?
- 8) What steps does USPS envision taking to mitigate the problems of excess ozone production from operating a mail irradiation facility within the District of Columbia?
- 9) Who will operate the irradiation equipment at Curseen-Morris – USPS employees or outside contractors? What training is planned for these workers to operate the irradiation equipment?

We plan to take an active role in the discussions surrounding the proposal to build a mail irradiation facility at Curseen-Morris. We realize that a decision has been made by those in the Congress and the Executive Branch to continue the mail irradiation program, but there are a number of issues that affect those of us who live and work in the District of Columbia that need to be resolved before this project should go forward.

Should you have any questions regarding this letter, please feel free to contact me at (202) 454-5150.

Sincerely,

Wenonah Hauter, Director
Critical Mass Energy and Environment Program

cc: Congressman Tom Davis
Congressman Henry Waxman
Delegate Eleanor Holmes Norton
Mayor Anthony Williams
Councilmember Vincent Orange, Sr.
Richard Collins, National Postal Mail Handlers Union
Myke Reid, American Postal Workers Union