

**Center for Health, Environment & Justice · Clean Water Action
Committee to Bridge the Gap · Environment America · Food and Water Watch ·
Friends of the Earth · Greenpeace · Massachusetts Citizens for Safe Energy
Natural Resources Defense Council · Nuclear Information and Resource Service
Physicians for Social Responsibility · Professor Richard Clapp · Public Citizen ·
Sierra Club**

August 15, 2011

The Honorable Robert Perciasepe
Deputy Administrator

The Honorable Scott Fulton
General Counsel

The Honorable Gina McCarthy
Assistant Administrator for Air and Radiation

The Honorable Mathy Stanislaus
Assistant Administrator for Solid Waste and Emergency Response

The Honorable Nancy Stoner
Acting Assistant Administrator for Water

United States Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Ave., N.W.
Washington, DC 20460

Dear Deputy Administrator Perciasepe, General Council Fulton, Assistant Administrators McCarthy and Stanislaus, and Acting Assistant Administrator Stoner:

We write regarding a series of radiation protection matters, made more important in the wake of the Fukushima nuclear tragedy.

On August 5, 2009, many of us wrote to, and three months later, met with several of you regarding a number of radiation protection policy matters, including controversial draft Protective Action Guides (PAGs) proposed in the last days of the Bush Administration to relax standards for protection of the public from exposure to radiation in case of a radiological release. [A copy of our letter and its attachments is enclosed.]

Two years have passed since those concerns were expressed, and it appears the problems have not yet been resolved. Additionally, a number of related issues have arisen,

particularly matters raised by the Japanese nuclear tragedy and the Agency's response. *We request a meeting to discuss these important matters.*

Described below are some of the issues we believe would be useful to address in that meeting.

Protective Action Guides

The proposed PAGs put forward by the Office of Radiation and Indoor Air (ORIA) in the last days of the prior Administration would have dramatically relaxed public protections. For example, "acceptable" concentrations of radioactivity in drinking water for the intermediate phase (generally up to a year after a release) were proposed that were dramatically higher than allowed under the Safe Drinking Water Act. For some radionuclides, ORIA would allow people to drink water contaminated at levels hundreds or thousands of times EPA's Maximum Contaminant Limits (MCLs). For other radionuclides, concentrations tens of thousands of times, hundreds of thousands of times, and even millions of times higher than MCLs were proposed.

ORIA also proposed to jettison decades of EPA's requirements that long-term cleanup of contamination be conducted so as to leave a residual risk within EPA's longstanding cancer risk range of the 10^{-6} to 10^{-4} (one in a million to one in ten thousand). ORIA instead proposed to employ a controversial process called "optimization" by which no standards were set forth on a health basis but instead decision-makers could, after a radiological release, choose from a range of "benchmarks." Among these were benchmarks that would allow contamination to not be cleaned up even if it would produce radiation exposure of up to 10 rem per year (the equivalent of approximately 50,000 chest X-rays over thirty years). EPA's own official risk estimates in Federal Guidance Report 13 estimate that that dose over thirty years would produce an excess cancer in every fourth person exposed—about a thousand times higher risk than EPA has historically ever accepted.

These Bush Administration proposals were so controversial that the Obama Administration, immediately upon taking office, pulled them back and promised a careful review and reversal of any ill-advised aspects of them. More than two years have passed, however, and still no new PAGs have been issued. Press reports suggest, however, that the people within ORIA who were the prime movers behind these questionable proposals during the prior Administration have continued to push for them, albeit perhaps using slightly different language that in the end has the same effect. For example, one trade press report indicates that current drafts of the PAGs may retain the concept of optimization, even though the term may no longer be used, by not specifying that the CERCLA risk range and guidance should be employed but suggesting that there are many possible cleanup standards of which CERCLA is merely one. That would be optimization simply in other clothes. It also remains unclear whether EPA will explicitly indicate that the MCLs should be used for drinking water protection, given the public attack by some within EPA on EPA's own Safe Drinking Water standards during the agency's response to the Fukushima disaster, as discussed below. We thus are troubled that EPA has still not acted to reject

clearly and unequivocally the troubling efforts from the Bush Administration to weaken rather than strengthen public protections in the PAGs.

We note that Public Employees for Environmental Responsibility (PEER) submitted a Freedom of Information Act (FOIA) request to obtain EPA records about the efforts to weaken the PAGs and that ORIA resisted complying to such an extent that PEER had to file suit in order to obtain the requested records. Those documents, when finally produced, revealed that EPA officials within the Office of Superfund Remediation and Technology Innovation (OSTRI) and the Office of General Counsel had attempted to raise similar concerns about the PAGs. OSTRI calculations, for example, showed that the proposed water PAGs would permit orders of magnitude higher concentrations than the MCLs, indeed, up to six orders of magnitude higher concentrations. In one telling example, OSTRI had demonstrated that drinking a few glasses of water with concentrations of certain radionuclides at the proposed water PAG level would produce a risk greater than a lifetime's consumption of water at the Safe Drinking Water Act MCLs.

Recently, controversy has arisen in Japan over a decision—since reversed, according to press reports—to significantly increase permissible radiation exposures to children attending schools outside the Fukushima evacuation zone because of the extensive contamination in their schoolyards. Japanese authorities proposed increasing allowable radiation levels to 2 rem (20 mSv) per year. According to EPA's recently released "Blue Book" ("EPA Radogenic Cancer Risk Models and Projections for the U.S. Population," April 2011), the excess cancer risk to a 5-year-old American girl receiving 2 rem in a single year would be 7.2×10^{-3} . Put more plainly, *EPA's own risk estimate is that such a dose would result in an extra cancer in approximately one in every 138 children exposed.* This, of course, is orders of magnitude outside the risk range EPA has historically deemed acceptable. The firestorm of concern among Japanese parents apparently led the officials to abandon efforts to increase the exposure limits.

What hasn't been discussed publicly is that EPA's own existing PAGs *currently* allow exposures during the intermediate phase to precisely the same controversial value that the Japanese authorities had to abandon due to public concern. And indeed, the proposed PAG revisions discussed above would increase that even further.

We believe it would be productive to address resolution of these and other issues related to EPA guidance for protection of the public should there be a radiological release in the U.S.

EPA Fukushima U.S. Radiation Monitoring Program

A useful test of EPA's readiness to respond to a nuclear release that could affect the United States has been the ongoing Fukushima tragedy in Japan. Some aspects of that performance are troubling, and we would like to bring them to your attention and discuss them.

First of all, a large portion of EPA's RADNET system of stationary air monitors was broken and not fully functioning at the time of the accident. Indeed, some of the monitors had been broken for months. This is disturbing for a system that is supposedly designed to deal with emergencies.

Even had the RADNET air monitors all been working, their primary purpose—collecting radioactive particulates on air filters to be sent to the EPA lab in Montgomery, Alabama to be measured for concentrations of key radionuclides—appears to have largely not been carried out. Only a handful of measurements for specific radionuclides from air filters from stationary air monitors have been released. Additionally, even had such measurements been made, it is our understanding that most of radioiodine would be missed, as that element in gaseous form would pass right through the filter.

Furthermore, the RADNET system has large gaps. For example, there are no stationary air monitors along the California coast between Los Angeles and San Francisco. It is our understanding that EPA initially contemplated placing up and down the West Coast special deployable monitors, more capable than the stationary ones (the deployables use charcoal cartridges that can collect radioiodine in elemental form). However, an order was issued from EPA Headquarters reversing those plans and directing that the deployables not be used to fill in gaps along the West Coast, and most of the deployable thus have remained in warehouses and offices rather than being in the field where they could help provide data.

Furthermore, for a significant period after the accident began, EPA was not measuring radioactivity in precipitation, milk, and drinking water. After several states found levels of radioiodine in rainwater—at levels far above the MCL for drinking water—EPA finally started some sampling, finding elevated levels of I-131 in numerous samples. Additionally, I-131 above the drinking water MCL was also found in a number of milk samples.

However, EPA issued statements indicating that such findings were orders of magnitude below “any level of concern.” When pressed about the fact that the readings exceeded the MCL, EPA issued statements in essence distancing itself from its own MCLs and continuing to rely on comparisons to guidelines that were thousands of times higher than EPA's own MCLs. This is troubling, because in effect, EPA acted as though the controversial water PAGs proposed during the Bush Administration and rescinded by the Obama Administration were in fact in place.

There are a number of other issues about the monitoring, such as the paucity of measurements for strontium-90, a critical radionuclide, and the long lag between taking the sample and obtaining the measurements, so that if there were a need for protective actions (e.g., restrictions on milk, getting water systems to treat supplies) it would be weeks too late.

But perhaps most troubling is the decision issued on 3 May to discontinue the Fukushima monitoring program and not take milk or drinking water samples for another three months. Given the fact that the accident tragically continues and that the Japanese

authorities say it may take them as much as nine months to get the situation under control, with radioactive releases expected to continue for a substantial period, ending the U.S. monitoring program for the Fukushima disaster and returning to the minimal monitoring that existed beforehand seems questionable.

Consideration of the problems evidenced by the RADNET system response to the Fukushima event may be important so as to assure that the system works well should there be a significant release of radioactivity from an event in the United States.

Other Radiation Protection Matters

In the letter of August 2009, attached, several other issues were raised that we would like to discuss and learn what progress has been made toward resolving them. Among them are:

- Proposals within EPA to permit radioactive waste to be disposed of in facilities not licensed for such waste (e.g., RCRA hazardous waste landfills and regular municipal waste sites). The continuing controversy over whether to remove the radioactive wastes disposed of in the West Lake Landfill in St. Louis reinforces this concern.
- Efforts to have EPA reverse its longstanding position that radiation dose limits of 100 millirem per year were “non-protective of public health and the environment.” EPA has historically declined to allow anything outside its risk range of 10^{-6} to 10^{-4} as unacceptable; the upper end of that risk range is an order of magnitude below 100 millirem/year.
- Resistance to revising radiation protection standards to reflect the findings by the National Academy of Sciences/National Research Council in its BEIR VII (Biological Effects of Ionizing Radiation) Report, prepared at EPA’s request. The NAS found “low dose” ionizing radiation to be approximately 35% more dangerous (i.e., producing more cancers per unit dose) than previously presumed. This finding comes on top of the earlier BEIR V report which had found radiation risks to be three to four times higher than assumed pre-BEIR V. The BEIR risk estimates have now been affirmed by EPA in its recent “Blue Book” on radiogenic cancer risk (an earlier draft of the Blue Book had suggested using lower values than those recommended by the NAS, a matter about which many of us had previously expressed concern). Yet many radiation standards of the U.S. government, including those of EPA, have not been tightened to reflect the increased risks found by the National Academy of Sciences in BEIR V, let alone BEIR VII. Indeed, as discussed above, there are significant efforts in the other direction, to further weaken radiation protection standards.

Additionally, we are concerned about lack of enforcement of EPA’s existing radiation protection requirements and guidance (e.g, the fuel cycle rule 40 CFR 190 and the need for stronger emphasis on requiring compliance with groundwater protection rules, important in light of the leaking tritium and other radionuclides into groundwater at a number of nuclear plants).

Furthermore, we are troubled by press reports which indicate that EPA and other agencies have recently recognized that there appears to be no agency in charge of long-term cleanup after a nuclear accident, that there are no funds available for off-site cleanup, and no agreement on what standards would be applied.

Request for Meeting

We would appreciate if a meeting could be scheduled with you in September to discuss these matters and what progress has been made on resolving them. Our point of contact for setting up such a meeting is Daniel Hirsch at dhirsch1@cruzio.com or (831) 336-8003.

Sincerely,

Anne Rabe
Lois Gibbs
Center for Health,
Environment & Justice

Lynn Thorp
Clean Water Action

Daniel Hirsch
Committee to Bridge the Gap

Anna Aurilio
Environment America

Wenonah Hauter
Food and Water Watch

Damon Moglen
Friends of the Earth

James P. Riccio
Greenpeace

Mary Elizabeth Lampert
Massachusetts Citizens for
Safe Energy

Geoff Fettus
Natural Resources Defense
Council

Diane D'Arrigo
Nuclear Information and
Resource Service

Michele Boyd
Physicians for Social
Responsibility

Professor Richard Clapp
Boston University School of
Public Health – Emeritus

Tyson Slocum
Public Citizen

Dave Hamilton
Sierra Club

attachment: 2009 letter

cc: w/attachment: Senator Boxer, Chair, Environment & Public Works