

Teleconference call – April 20, 2011

Michele Boyd, Physicians for Social Responsibility

mboyd@psr.org

202.667.4260

Michele Boyd, director of the Safe Energy Program at Physicians for Social Responsibility (PSR), joined 10 Rachel's Network members for an informative call about the Japanese nuclear crisis and the current state of nuclear energy policy in the U.S.

Michele started the call by refuting the positive tone in many news articles about the Fukushima Daiichi crisis. The media reports that everything is going okay, but really it's still a crisis situation and the Japanese government only has a six month plan to deal with the fallout. Michele also was careful to note that the ongoing crisis is not a 'natural disaster,' as many are calling the meltdown. In reality, the current situation was precipitated by a natural disaster, but caused by a failure of planning and policy. For example, the backup generators that would power the plant in case of electricity failure were located in the basement. In a tsunami zone, that is a poor idea. She also clarified that one to three of the reactors at Fukushima Daiichi did in fact meltdown; it is no longer a "near meltdown." The crisis is now a "7" on the International Nuclear and Radiation Event scale, the same level as Chernobyl.

Michele then explained the Mark 1 nuclear reactor design, which is an older design that stores fuel in open pools cooled by water. When power was lost at the plant, the water, and thus the fuel, could not be kept cool. Plant operators began dumping salt water on the fuel as it was the nearest available water source. As the water evaporated, salt caked onto the reactors, rendering them unsalvageable. In the early days before the explosions, some thought the plant could have been recovered. The water that crews dumped on the reactors became contaminated with radiation, and began leaking out of the pools and into the ocean. It is difficult to assess the contamination level of the ocean water surrounding the plant; officials call it "low level," but that's not entirely true.

When plankton ingest microorganisms that have absorbed radiation, the radiation then bioaccumulates up the food chain to the fish that will ultimately be eaten by humans. The human health effects of the radiation are most severe in Japan, especially the workers on the site. Experts are concerned about the long-term health of the overall population; approximately 80,000 people may never be able to return home, and the land surrounding the plant can never be farmed again. While small amounts of radiation aren't harmful, the buildup of radiation over time is of primary concern. Some of the isotopes have very long half-lives; essentially, once the isotope enters the body through ingestion or inhalation, it will always be there. The most prevalent isotope is iodine 131, but one of the more dangerous isotopes is plutonium 239, which causes lung cancer and has a half-life of 80 years.

In the U.S., the Virginia Department of the Environment has advised residents not to drink rainwater caught in cisterns. On the west coast, Michele lamented the FDA's decision not to test seafood caught for radiation; many of the larger species caught there migrate through potentially radioactive water. Michele noted that both the U.S. and Japanese governments have been

withholding information about radiation levels, so PSR along with other groups filed a Freedom of Information Act (FOIA) request to obtain testing data. Of most concern, 1/3 of the radiation monitors on the west coast were not working at the time of the accident.

In the U.S., policy-makers are actually doing *more* to embrace nuclear power in the wake of the Japanese crisis, and according to Michele, the move is a stark contrast to the response from other developed countries, many of which have slowed nuclear development. Only a few days after the accident, President Obama made a speech in which he reinforced his support of nuclear power and announced a new \$36 billion loan guarantee program. While the president claims to support a clean energy standard, he defines nuclear and 'clean coal' as clean energy. As his re-election campaign begins, Obama is in need of the nuclear industry's support. In addition, the Nuclear Regulatory Commission (NRC) has continued to license new reactors and re-license old reactors; there has been no observable slowdown in approvals, which, Michele noted, is astounding. In fact, the NRC just re-licensed an old reactor in Vermont that the state itself does not want. This could be attributed to the fact that the five NRC commissioners are all pro-industry. While the U.S. embraces nuclear following the Japanese crisis, many other countries have put moratoriums on new plants. Germany, Michele mentioned, seems to be heading away from nuclear completely.

In the U.S., opponents of nuclear are hoping the economic argument will win the day. Nuclear plants are already almost prohibitively expensive to build, and new safety regulations will add to the expense. However, some states are actually passing laws that allow utilities to charge customers a fee **before** the plant is ever built! In Florida, South Carolina, and Georgia, ratepayers are already footing the bill for nuclear plants that may never be built. The current U.S. loan guarantee for nuclear is at \$18 billion; which means that the government has set aside \$18 billion of taxpayer money as a backstop for nuclear companies. If a company begins building a plant but then defaults on its loans, the government will pay the bill.

What can be done? Michele suggested several advocacy efforts underway. One is to prevent Congress from passing a new loan guarantee bill, which is a subsidy for new reactors. A second strategy is to prevent the re-licensing of existing nuclear reactors in earthquake zones. A third strategy is to fund research into radiation health consequences.

The call was then opened to questions. Derry MacBride asked Michele about a plant in California on a faultline by the coast – is it safe? Michele answered that regulations require reactors to be built according to the 'worst case' scenario, but in reality they aren't. Builders make their best guess based on what has happened in the past. Some plants in California should not be re-licensed. The nuclear industry is lobbying hard in Congress, telling Members of Congress that everything in the U.S. is totally safe, and that what happened in Japan could never happen here. In Michele's opinion, Congress needs to pass a strong safety bill that would not allow new reactors.

Lisa Renstrom then asked why the public doesn't know more about how much tax money goes to the nuclear industry. Michele directed the group to www.nuclearbailout.org. She noted that watchdog groups have been trying to get the message out, but no one wanted to listen before the

Japanese disaster. She noted that the U.S. has subsidized some nuclear power plants for more than the value of the energy they produce.

Martha Davis then asked about the safety of spent fuel storage, and noted that a Colorado senator suggested storing it somewhere in the state – is there anywhere safe to store it? Michele commended President Obama for canceling the Yucca Mountain development, as it was not a sound storage location, and would have only stored 2/3 of the existing spent fuel. The president currently has a Blue Ribbon commission working on solutions to spent fuel storage. Currently, there is no viable solution; existing storage containers are being over packed, which is dangerous. A strong safety bill could require sites to thin out spent fuel containers. Michele favors on-site storage in hardened, terrorism-proof containers. Currently, spent fuel at many plants is highly vulnerable; it is stored in the open, covered by little more than a corrugated metal shed.

Molly Ross asked if there were any public relations efforts going on around the issue. Michele reiterated that it was difficult to get the media to pay attention before the Fukushima disaster. All the research and fact sheets they have done are out. Lisa followed up by asking exactly what PR work PSR is doing. Michele said that PSR is working with two communications firms on various public awareness strategies, and noted that there has been progress in the way the media treats nuclear policy. She also said that PSR is working with other NGOs like NRDC, Beyond Nuclear, and Taxpayers for Common Sense on different messages for different groups.

Molly offered that two Rachel's Network members work in media and might be interested in helping with a documentary on nuclear issues. Michele closed by noting that the foundation community hasn't fully engaged in funding around nuclear awareness or advocacy. She surmised that fatigue after the climate fight last year left many funders wary of jumping into a new clean energy campaign. Regardless of the cause, she noted that it has been difficult to find funders willing to invest in her work.