

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE COMMISSION

In the Matter of

Docket # 50-293-LR

Entergy Corporation

Pilgrim Nuclear Power Station

License Renewal Application

March 6, 2012

**PILGRIM WATCH’S SUPPLEMENT TO PILGRIM WATCH PETITION FOR
REVIEW OF LBP-11-20**

Pilgrim Watch (“PW”) through its *pro se* representative, Mary Lampert, respectfully submits the attached new information, *Japan decontaminates towns near tsunami-hit nuclear plant, unsure costly effort will succeed*, Mari Yamaguchi, Associated Press, March 5, 2012 believed by PW to be new, significant and material to U.S. Nuclear Regulatory Commission’s (“Commission”) consideration of PW’s Petitions for Review of LBP- 11-20¹, currently before the Commission, and relevant to the Commission’s obligation under NEPA. PW requests that it be included in the record.

¹ LBP-11-20 considered two contentions. PW’s supplement concerns Pilgrim Watch Request for Hearing on a New Contention, filed November 29, 2010 (“Cleanup Contention”). It is “based on new information indicating that no third party has assumed responsibility for cleanup after a severe nuclear reactor accident, no cleanup standard had been set, and no source is identified to pay for the cleanup.”

Respectfully submitted,

Mary lampert

(Signed Electronically)

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ATTACHMENT

Japan decontaminates towns near tsunami-hit nuclear plant, unsure costly effort will succeed, by Associated Press, Updated: Monday, March 5, 9:18 AM²

FUKUSHIMA, Japan — Workers in rubber boots chip at the frozen ground, scraping until they've removed the top 2 inches (5 centimeters) of radioactive soil from the yard of a single home. Total amount of waste gathered: roughly 60 tons.

One down, tens of thousands to go. And since wind and rain spread radiation easily, even this yard may need to be dug up again.

The work is part of a monumental task: a costly and uncertain effort by Japan to try to make radiation-contaminated communities inhabitable again. Some contractors are experimenting with chemicals; others stick with shovels and high-pressure water. One government expert says it's mostly trial and error.

The radiation leak has slowed considerably at the Fukushima Dai-ichi nuclear plant, nearly one year after the March 11 earthquake and tsunami sent three of its reactors into meltdown. Work continues toward a permanent shutdown, but the Japanese government declared the plant stable in December, setting the stage for the next phase: decontaminating the area so that at least some of the 100,000 evacuated residents can return.

Experts leading the government-funded project cannot guarantee success. They say there's no prior model for what they're trying to do. Even if they succeed, they're creating another problem they don't yet know how to solve: where to dump all the radioactive soil and debris they haul away.

The government has budgeted \$14 billion (1.15 trillion yen) through March 2014 for the cleanup, which could take decades.

The uncertainty plays out at many levels. One of the workers at the house with the frozen ground said they weren't sure how to measure 2 inches (5 centimeters) from the uneven ground or what to do with the snow on top of it.

"We often encounter situations that are not in the manual and wonder if we are doing the right thing," Takahiro Watanabe said as they wrapped up on a chilly February day. "Just to be safe, we packed the snow into the bags."

The 60 tons of radioactive waste sat in 60 waterproof bags, waiting to be carted away from the house in Fukushima city's Onami district. Some 40 miles (60 kilometers) from the nuclear plant, the neighborhood is a "hot spot" — an area with high radiation readings that is outside the 20-

² http://www.washingtonpost.com/world/asia_pacific/japan-decontaminates-towns-near-tsunami-hit-nuclear-plant-unsure-costly-effort-will-succeed/2012/03/05/gIQAQ0VHsR_story.html

kilometer (12-mile) ring that has remained closed since the early days of the crisis. Residents of hot spots were encouraged, but not ordered, to leave, and some, including the residents of the house that was decontaminated, have not moved out.

In the fading late afternoon light, Watanabe took a dosimeter in his bare hand and placed it on the ground, now covered with a fresh layer of replacement soil. It read 0.24 microsieverts per hour — close to the target level of 0.2 and about one-fifth of what it had been before. “Looks like it has come down a bit,” he said.

But for how long? With so much radiation in the area, workers probably will have to return to redo this neighborhood. And areas where children gather, such as parks, schools and playgrounds, will be held to an even stricter standard than homes and offices.

“You have to keep cleaning up,” said Toshiaki Kusano, Fukushima city’s top crisis management official. The city has a five-year decontamination plan, which he said could be extended.

For evacuees, a major step forward may come in the next few weeks, when officials hope to redefine the evacuation zone, possibly opening up some areas, based on radiation data.

Radiation accumulates in soil, plants and exterior building walls. Workers start cleaning a property by washing or chopping off tree branches and raking up fallen leaves. Then they clean out building gutters and hose down the roof with high-pressure water. Next come the walls and windows. Finally, they replace the topsoil with fresh earth.

Historically, the only parallel situation is Chernobyl, where the contaminated area — once home to 110,000 people — remains off-limits nearly 26 years after the nuclear power plant exploded.

“They abandoned the land,” Environment Minister Goshi Hosono told a meeting of local officials and residents last month. “We won’t give up. The land belongs to each village, to each resident. As long as there are people who want to return home, we’ll do everything we can to help.”

In an interview with a group of reporters, though, he conceded that such a massive cleanup is “untested.”

In Hirono, a quiet seaside town just outside the 20-kilometer ring, 70-year-old Shuzo Okada hired workers to decontaminate his house but is not willing to live there yet.

Most of the 5,500 residents have left because of radiation fears. The town office reopened recently, but Okada says the dosimeter readings he takes at his house are too high for comfort.

“I’ve had the whole house cleaned already, but it’s not enough,” he said. “We have to do it again and again. I hope we can come back some time. I’m an old man, so I’m not afraid of radiation. But I doubt younger people would want to come back.”

Experts say it may be possible to clean up less-contaminated areas, but nothing is promising in

the most contaminated places, where any improvement is quickly wiped out by radiation falling from trees, mountains and other untreated areas.

Most of the cleaning is taking place in less contaminated areas, but the government also launched pilot projects in 12 districts around the plant, most of them highly contaminated, in December. Major construction companies and others won government contracts to experiment with various methods to remove and compact the overwhelming volume of waste. Those found effective will be chosen for further cleanup starting in April.

The dozens of methods range from the relatively basic — soil removal and washing and scrubbing surfaces — to the more experimental, such as using chemicals to remove radioactive cesium from farmland, and dry ice to get it out of roads and other hard surfaces. Konoike Construction Co. has tested equipment that compresses soil into round waffle-like discs after absorbing moisture.

“It’s largely trial and error,” said Kazuaki Iijima, a radiation expert at the Japan Atomic Energy Agency, which is supervising the pilot projects. “Decontamination means we are only moving contaminant from one place to another. We can at least keep it away from the people and their living space, but we can never get rid of it completely.”

Then there’s the question of finding places willing to accept an ever-growing pile of radioactive waste.

The Environment Ministry expects the cleanup to generate at least 100 million cubic meters (130 million cubic yards) of soil, enough to fill 80 domed baseball stadiums.

For now the waste is being bagged and buried in lined pits. Officials hope to build safer storage facilities somewhere inside the 20-kilometer (12-mile) zone within three years. The government launched the cleanup without definitive plans for the storage facilities; it plans to start discussing their location with local leaders later this month.

The waste would remain in the longer-term storage for 30 years, until half the radioactive cesium breaks down. Then it would still have to be treated and compacted — using technology that hasn’t been fully developed yet — before being buried deep underground in enclosed containers.

With all the uncertainties swirling around the cleanup, many evacuees are torn between a desire to go back and worries about their health.

Masato Yamazaki, a 68-year-old retired electrician, misses the vegetable garden at his house in Namie, a highly contaminated town just northwest of the plant.

“I want to go home even tomorrow if radiation levels come down and electricity and water are restored,” he said in his temporary home, a two-bedroom, subsidized apartment in Nihonmatsu that he shares with his wife, their daughter and two grandchildren.

His wife, Hiroko, 64, doesn’t think that day will come. She became particularly skeptical after

watching the cleanup of a park across from their apartment — she described it as a “cat and mouse chase” in which radiation seemed to be moved from one place to another.

It didn’t help to learn that the foundation of their temporary housing had been built with gravel contaminated by the Fukushima nuclear plant. City inspectors say the level of radiation is safe, though everyone on the ground floor has moved out.

“I don’t think decontamination works, and I don’t feel safe about it,” Yamazaki said. “I’ve given up hope of returning to our home.”

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