

Japan funds projects to clean up Fukushima

Three major projects aim to make it possible for evacuees to return to their homes.

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11 November 2011

With the Fukushima nuclear reactors seemingly under control, the Japanese government is now facing the daunting task of cleaning up the highly contaminated areas around the reactors so that residents can move back. But it is estimated that more than 100 million cubic metres of soil and debris will need to be removed. Where does one get started?

On Monday, the Japan Atomic Energy Agency (JAEA) selected three major decontamination demonstration projects. On Wednesday it followed with the announcement of another 25 grants for smaller, technology-based projects. The goal for each of the three demonstration projects is to show the capability of reducing radiation levels to less than 20 millisieverts per year — the legal threshold at which people must be evacuated — “with an economically feasible, efficient, and effective decontamination method that limits the amount of radioactive waste as much as possible while ensuring the safety of workers”.

Each group will receive roughly ¥600 million (US\$7.7 million) for each of the four cities or towns for which it will take responsibility. Taisei Corporation, for example, will be covering Minamisoma, Kawamata, Namie and Iitate. The 12 towns are all either in the original 20-kilometre exclusion zone or in the extended exclusion zone covering the plume to the northwest where high levels of radioactive material fell (see [Does Japan's new Fukushima exclusion zone add up?](#)).

The details of the projects have been kept surprisingly quiet. A representative of the JAEA said that, despite having released the names of the winners on Monday, it could give no details on what the winners proposed to do because of agreements with the applicants. A spokesperson for Taisei said that details could not be released because of concerns over intellectual property. A spokesman from Obayashi Corporation, which will be decontaminating Hirono and Okuma, similarly said details could not be released although he did acknowledge that the proposal was related to a technology that the company developed to quickly and accurately tell the difference between radioactive material from the plant and that which is naturally occurring.

The demonstration projects will run until March. But there are not yet any plans for how to carry them forward after that, according to a JAEA representative.

The 25 smaller proposals announced on Wednesday will receive around ¥20 million to target technologies that can, by February, make decontamination more efficient, reduce waste volume or facilitate transportation and storage of contaminated waste. The winning proposals are similarly short on details. One, from a company called Kantechs, will use dry ice in rubble removal. One from Kyoto University aims to use nanobubbles for “direct cleaning” of caesium.

But is it worth it? Tomoya Yamauchi, a radiation physicist at Kobe University who has been measuring radioisotope contamination of



TEPCO

The Fukushima nuclear power plant melted down following an earthquake and tsunami in March.

agricultural land in and near Fukushima says that although some people are eager to return, many, especially younger residents, are happy to start anew somewhere else — but that many of those are afraid to express their opinions.

“Decontamination is not a highly productive enterprise,” he says. “Before they make a policy of sending everyone home, they should carefully listen to people’s opinions. There is also the option to put all that money into building a new town on different land.”

Nature | doi:10.1038/nature.2011.9351

Nature ISSN 0028-0836 EISSN 1476-4687

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