

[EXPOSÉ] AREVA AT THE HEART OF FUKUSHIMA'S EXPLOSIVE REACTOR

LE 16 MARS 2011 ANDRÉA FRADIN

In May 2001, a report from Greenpeace condemned the use of MOX in Fukushima's power plant. Was the recent nuclear catastrophe in Japan an event that was already predicted by the experts?

As early as May 2001, Greenpeace advocated that nuclear reactors in Fukushima should abandon using the nuclear fuel MOX. As shown in the letters sent to the American Nuclear Regulatory Commission (see below), the issue pertains to Fukushima's **boiling water reactors**. Greenpeace writes:

“

The safety of conventional thermal nuclear reactors fueled by MOX is seriously compromised by two important considerations: difficulties in the fabrication and quality control of MOX fuel pellets and differences in the behavior of plutonium and uranium in the reactor.

”

....

Hello, you have an old version of Adobe Flash Player. To use iPaper (and lots of other stuff on the web) you need to **get the latest Flash player**.

.....

The NGO's information relied on a study conducted by **Dr. Edwin S. Lyman** in 1999 ("The Importance of MOX Fuel Quality Control in Boiling-Water Reactors" Dr. Edwin S. Lyman, Scientific Director, Nuclear Control Institute, Washington DC, December 14). The researcher analyzed the impact MOX had on nuclear accidents in Japan, and the organization concurred that:

“

If significant numbers of fuel failures occur early in the accident, fission products will be released and changes in fuel geometry may interfere with the flow of coolant through the core, 'increasing the risk that fuel heat-up will continue until the irreversible core melting and quantitative fission product release occur.' (p. 37)

”

Specifically, MOX is extremely reactive and fuses much faster than enriched uranium. "It's fusion point is much lower," explained Lauri Myllyvirta, nuclear campaigner for Greenpeace International. Its role in the recent nuclear accident, however, is difficult to determine. Myllyvirta further elaborates:

“

The state of the fuel and the extent of the damage within reactor 3 remains unclear. Consequently, whether or not it was a factor in the accident remains an open question. But the use of MOX fuel has significantly reduced the safety of the situation – it makes the disaster more difficult for operators to manage while the level of radioactive fumes increases.



In Greenpeace's crossfire is Areva, the main supplier for the power plant in Fukushima. They are subsidized by **Melox**, which holds 95% of the market shares for MOX. As shown in the export license issued by the Nuclear Regulatory Commission (see below), Areva supplies the center with uranium-235. Yet since September 2010, it also supplies MOX.

Hello, you have an old version of Adobe Flash Player. To use iPaper (and lots of other stuff on the web) you need to **get the latest Flash player.**

Nathalie Bonnefoy, a representative from Melox's communications department, said "The type of fuel used in the reactor is absolutely not involved in the problems at the Fukushima facility...In normal operations, MOX and enriched uranium have the same performance." What about the use of MOX in the event of a disaster, such as reactor 3 in Fukushima? "At this stage there is no link."

For Shaun Burnie, the author of the 2000 Greenpeace report, there is only a relative lack of connection. According to him:



MOX is the most dangerous substance on the planet – even more than uranium. The financial stakes around MOX supersede the knowledge of its effects on public health. Within 30 minutes of the earthquake, everyone who knew Fukushima's business affairs could imagine what eventually happened – it was predictable.



As a side note to MOX's nuclear complexity, Greenpeace also accused Belgonucleaire (which produces MOX) of having poor quality standards:



What the evidence shows is Belgonucleaire hasn't produced sufficient assurance that MOX used in Fukushima was developed under the highest standards of quality, and eventually some sort of incident would bring this to the surface.



Falsification of quality control

Additionally, Since 2002 Tepco (Tokyo Electric Power Company), the power company that runs the plant in Fukushima, falsified the results of quality checks for some of its reactors. In the report two years earlier, Greenpeace suspected Belgonucleaire's activities were fraudulent. At the time, there was a similar scandal involving British Nuclear Fuels Limited:



A scandal involving the falsification of quality control data by British Nuclear Fuels (BNFL) for MOX fuel delivered to Japan for use in another reactor...forced a delay in all MOX plans in Japan.

During the last 12 months, evidence has emerged that the problems that led to the falsification of MOX fuel quality control data at BNFL, may also have been experienced at Belgonucleaire (pg.8).



In a report from the US Department of Energy, the findings confirm the forgeries, stating “*the documents concealed from government regulators (reported) knowledge about cracks in structures holding nuclear fuel in place in reactor cores at several Tepco power plants*” (p. 8).

Hello, you have an old version of Adobe Flash Player. To use iPaper (and lots of other stuff on the web) you need to **get the latest Flash player.**

.....

This revelation resulted in the resignation of several executives at Tepco, along with the power plant in Fukushima being closed for one year. It further explains why the delivery of MOX to Fukushima was suspended between 1999 and 2010. When Greenpeace’s report was released, about 32 machines used for making MOX fuel were pending in delivery at Belgonucleaire. It was just last September that these shipments were sent – and reactor 3 has been using this fuel since October. Contacted by OWNi, a spokesperson for Areva confirmed its business with the power plant in Fukushima, indicating that “Reactor 3 was functioning with 30% MOX fuel.”

Instability at all levels

Reactor instability with the use of MOX, liability from manufacturing procedures and falsification of data – these points were already listed in public documents as early as 2000. Add to these various warnings the report from the International Atomic Energy Agency (IAEA) following the 2007 earthquake in Japan. This natural disaster affected the **Kashiwazaki-Kariwa** nuclear power plant (also managed by Tepco), located 250 kilometers north of Tokyo. The IAEA made the following recommendation:



For all nuclear power plants: Diligence is required in the design, construction and operational phases of all plants to assure that seismic systems interaction issues are minimized...



Hello, you have an old version of Adobe Flash Player. To use iPaper (and lots of other stuff on the web) you need to **get the latest Flash player.**

....

For what it’s worth, the president of Areva Anne Lauvergeon **stated last night on France 2[FR]** that the multiple accidents at the power plant in Fukushima was not considered a “nuclear catastrophe.”



I think we’ll avoid a nuclear catastrophe. We are a bit between the two.



According to **Greenpeace**[FR], another shipment of MOX was being prepared for Japan. The “secret crossing” was initially fixed for the week of April 4, yet the order has not been permanently cancelled.

—

Investigated with Guillaume Dasquié.

Photo Credits: Flickr CC **CmdrCord**

Translation: Stefanie Chernow

PLURIEN

le 25 mars 2011 - 13:21 • SIGNALER UN ABUS - PERMALINK



Il est siderant de voir l'opacite des informations de la part de l'operateur Tepco, du gouvernement japonais (qui n'a pas permis aux secouristes etrangers de porter secours a leur population peut etre par crainte qu'ils mesureraient les taux reels de radioactivite), du fabricant des reacteurs Areva (dont la presidente a l'audace de dire que l'accident de Fukushima n'est pas une catastrophe nucleaire)!

Il est grand temps de faire un moratoire suspendant toutes les operations de reacteurs nucleaires de plus de 30 ans d'age. Il faut aussi investir autant que l'on a investi dans le nucleaire dans les energies renouvelables telles que le solaire, l'eolien, le geothermique et les marees et courant. Si nous ne le faisons pas nous deviendrons totalement dependant de la Chine pour ces technologies! A l'aide!!

VOUS AIMEZ



0

VOUS N'AIMEZ PAS



0

LUI RÉPONDRE

1 ping

Ma Zone Contrôlée...VA MAL! » A Dampierre, avec les « nomades » du nucléaire... le 27 avril 2011 - 15:42

[...] [Exposé] Areva at the heart of Fukushima's explosive reactor [...]